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## EFFECTIVE RISK MANAGEMENT SYSTEMS AT MANUFACTURING ENTERPRISES

**Makhmudova Nodirakhon Jumaboy qizi**

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### ANNOTATION

*Due to changes in market conditions and a drop in the rate of development of the domestic economy, industrial enterprises have to carry out entrepreneurial activities in the face of growing uncertainty of the situation and the volatility of the economic environment. In this connection, there is ambiguity and uncertainty in obtaining the expected final result, and, therefore, there is a risk, i.e. the danger of failure, unforeseen losses. Thus, modern conditions lead to the need to develop a new strategy for managing a manufacturing enterprise operating under risk conditions, to develop a methodology for analyzing and assessing risk, as well as procedures for making and implementing managerial decisions. To successfully manage risks, you need to be able to identify, analyze and predict them. The article discusses methodological approaches to drawing up a risk management system for industrial enterprises, approaches to assessing the risks of industrial enterprises. A general scheme of a risk management system for industrial enterprises is proposed in order to analyze and assess risk, and develop ways to reduce it in production management.*

**KEY WORDS:** *risks of an industrial enterprise, efficiency of economic activity, classification signs of risks, risk assessment, methods of risk analysis, production management*

### DISCUSSION

A necessary condition for the effectiveness of any economic system is economic freedom, which presupposes that an economic agent (producer, consumer) has a certain set of rights that guarantee him autonomous, independent decision-making. But economic freedom is a source of uncertainty and risk, since the freedom of one economic agent is accompanied at the same time by the freedom of others.

Any activity that legal entities are engaged in is always at risk. At each stage of the formation of an enterprise, management of its activities, certain risks are formed that negatively affect and have a negative impact on the formation of the financial result.

Despite the fact that in modern economic literature there are many views on the problem of risk, which gives rise to a variety of definitions of the concept of "risk" proposed by various authors, three types of definition of this category can be formulated:

- Risk is the probability of deviation from the planned results (losses or additional profits);

- Risk is an uncertainty that can be qualitatively and / or quantified;

- Risk is an action at random in a situation of uncertainty in the hope of a positive result.

With regard to the production sphere, risk is defined as the possibility of losing part of the resources or shortfall in income in comparison with the levels and values calculated on the basis of the assumptions about the most rational use of resources and the accepted scenario of the development of the market situation.

Production risk is a risk arising from any type of activity related to the production of products, their sale, commodity-money and financial transactions, marketing, commerce, the implementation of socio-economic and scientific and technical projects.

Drawing up a system of classification signs of risk gives an understanding of its nature, allows you to establish structural characteristics, and develop measures to reduce the level of risk based on the results of its assessment.

A feature of the classification risks of industrial enterprises is its conventionality, since it is



difficult to draw a rigid division of the boundaries between types of risks, since they are all interconnected, changing and complementing each

other, are of mixed nature, and can be an integral part of each other.

**Table 1 presents a system of classification signs of risks of an industrial enterprise.**

Classification attribute	Type of risks	Risk characterization
By the level of the economic system	Megaeconomic	Associated with the functioning of the economy as a whole
	Macroeconomic	Risks of the economic system of the state
	Mesoeconomic	Formed at the level of sectors of the national economy
	Microeconomic	Intercompany risks of an individual enterprise
Sphere of origin	Political	Associated with political instability, changes in legislation
	Ecological	Associated with emergencies, environmental pollution
	Industrial	Associated with forced interruptions in production: loss of working capital, failure of production assets
	Commercial	Associated with a change in the terms of the commercial activities, market conditions
	Transport	It is associated with the safety of the cargo during transportation and compliance with the delivery time
	Financial	Associated with the likelihood of loss of financial resources
Place of origin	External	Changes in economic policy, natural disasters, exchange rate risk
	Internal	Associated with the specialization of the enterprise: production, financial, insurance
The degree of the risk acceptability	Permissible	Risk, financial losses for which do not exceed the estimated amount of profit on the ongoing investment project
	Critical	Risk, financial losses for which do not exceed the estimated amount of gross income for the investment project being implemented
	Catastrophic	The risk for which financial losses are determined by the partial or complete loss of equity capital (this type of risk may be accompanied by the loss of borrowed capital)
Possibility / impossibility for project participants to influence risk factors	Non-systematic (internal)	Risk associated with factors, the negative consequences of which can be largely prevented through effective management of project risks (quality of management, structure of assets and capital, relationships with partners, etc.)
	Systematic (external)	It is typical for all participants in investment activities and all types of real investment operations. It occurs in a number of cases that the company cannot influence in the course of its activities (inflation risk, interest rate risk, tax risk)
By stages of project implementation	Pre-investment stage risks	Risks associated with the choice of an investment idea, the preparation of business plans, recommended for the use of investment goods, the validity of the assessment of the main performance indicators of the project
	Investment stage risks	Risks of untimely implementation of construction and installation work on the project; ineffective control over the quality of these works
	Post-investment stage risks	Risks associated with untimely production reaching the planned design capacity; insufficient provision of production with the necessary raw materials and materials; irregular supply of raw materials and supplies; low qualification of operating personnel; shortcomings in marketing policy, etc.



possibility of insurance	Insured	Risks that can be transferred through external insurance to relevant insurance companies
	Uninsured	Risks for which there is no supply of relevant insurance products in the insurance market

The International Risk Management Standard, recognized worldwide, was developed jointly by the Risk Management Institute (IRM), the Association for Risk Management and Insurance (AIRMIC) with the participation of the National Risk Management Forum in the UK Public Sector. This standard is known as FERMA RMS. Unlike the COSO ERM Standard discussed above in terms of the terminology used, this standard follows the approach taken in the documents of the International Organization for Standardization, which is the ISO / IEC Guide 73 Risk Management - Vocabulary - Guidelines for use in standards. In particular, risk is defined by the standard as “a combination of the likelihood of an event and its consequences. Risk management in this context is considered as the central part of the strategic management of an organization, whose task is to identify and manage risks. Risk management as a unified risk management system should include a program for monitoring the implementation of assigned tasks, an assessment of the effectiveness of measures taken, as well as a reward system at all levels of the organization. In accordance with the FERMA Standard, four groups of organization risks

are distinguished: strategic, operational and financial, as well as hazard risks. In addition, the methods presented in the ISO standards are the basis for the risk assessment in the FERMA RMS standard. The creators of the standards agree with ISO / IEC that risk assessment is an analysis of risk, as well as its qualitative and quantitative assessment.

Today, there are a large number of risk minimization methods presented by various scientists.

The main ways to minimize risks include: risk distribution among different agents, risk insurance, self-insurance of risks, organization of production diversification, limitation, implementation of alternative planning, creation of a flexible production structure, creation of reserve funds, information monitoring, training and training of personnel, the use of flexible technologies , risk aversion.

Taking into account the sectoral characteristics of industrial enterprises in production management, it is necessary to highlight the methods of risk reduction aimed at resource provision of production and effective supply activities (Table 2).

**Table 2**

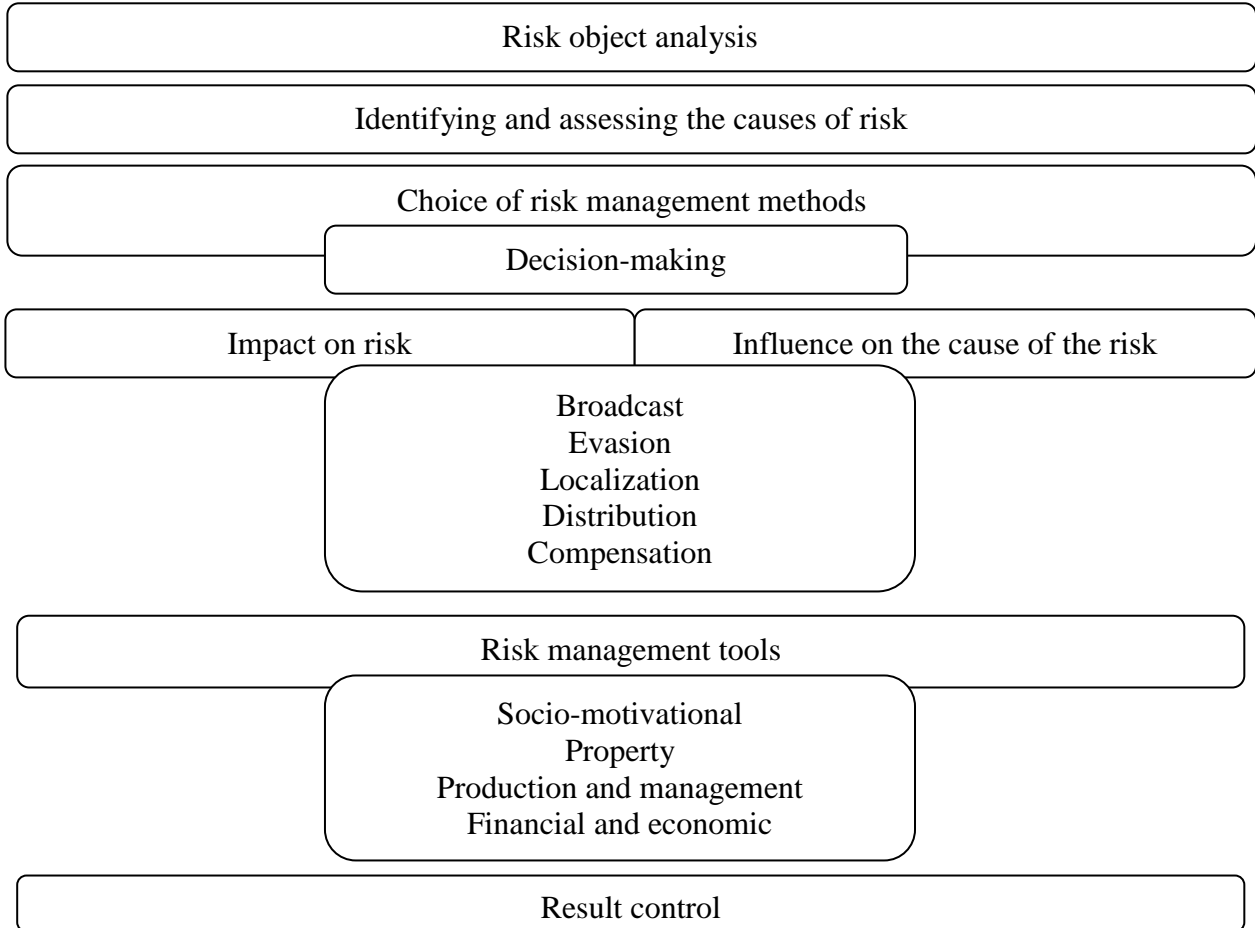
**Ways to reduce risk in the production management of industrial enterprises**

Types of risk	Ways to reduce your risk
<i>In the field of production</i>	
Technical risk	Carrying out preventive measures, formation of reserve funds, insurance
Technological risk	Quality control, situation monitoring
Production organization risk	Development of promising areas of development, building a rational production structure, pursuing an effective innovation and investment policy
Labor resource risk	Professional development, personnel training, certification, accident insurance
Executive risk	Methods of motivating employees, contributing to the achievement of the goals of the enterprise (association)
Natural disaster risk	Insurance, self-insurance - formation of reserve funds
<i>In the field of supply and sales</i>	
Market risk	Integration processes (conclusion of long-term contracts, agreements), diversification of production
Transport risk	Self-insurance, introduction of penalties, forfeits
Warehouse risk	Introduction of resource-saving, energy-saving technologies
Risk of purchasing raw materials	Implementation of scientific inventory management methods
Marketing Risk	Marketing research, diversification of sales markets, creation and promotion of a trade mark (brand)



In many ways, the reasons for the low competitiveness of industrial enterprises are the lack of a specialized contour (and/or special functions) for risk management in their management system. Risk management of industrial enterprises must be holistic

and orderly in a certain way. For the integrity and orderliness of risk management, this system can be represented as the following diagram:



**Fig. 3. General scheme of the risk management system of industrial enterprises**

Let us give a description of each element of the risk management system of an industrial enterprise. In accordance with the presented scheme, the first element is a risk analysis subsystem, the purpose of which is to obtain information about the structure, properties of an industrial enterprise at the present time and changes in its state in the future;

The second element is identifying, characterizing and assessing the existing causes of risks of an industrial enterprise, determining the likelihood of the size and possible damage;

The third element is responsible for choosing a method for developing a management decision aimed either at eliminating the cause or at minimizing the consequences;

The fourth element implements the process of influencing the risk, which consists in the application of specific methods of influencing the risk;

In the fifth element, the choice of risk management tools is carried out, and in the sixth stage, the result of the implementation of measures for risk management of machine-building enterprises is monitored. The system should be filled with risk management tools.

Modern economic conditions in which industrial enterprises operate, lead to the need to improve the risk accounting system, the basis of which is the classification of risk.

Industrial risks of enterprises should be considered the risks arising in the process of economic activity of enterprises of the main industries, which may have the nature of large, special or natural disaster risks.

The considered methodological recommendations for the analysis and assessment of risk will make it possible to build an effective risk prevention mechanism, focused on solving the



problems of stabilization and development of industrial enterprises, can be used as a toolkit in the procedure for making and implementing decisions in production management.

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# EFFECT OF NEEM LEAVES AND GARLIC BULBS EXTRACTS ON BACTERIA CAUSING POST-HARVEST SPOILAGE OF TOMATOES AT SOKOTO

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## ABSTRACT

This study attempts to overcome the challenges of postharvest losses of tomato fruits by examining some botanical extracts as alternative means to the use of synthetic chemicals. Step by step procedures were followed during conducting this work. Two locations were chosen, Sokoto and Shuni, and the samples of spoiled tomato fruits were collected randomly, materials that were used for the analysis were sterilized. bacterial pathogens were isolated at Microbiology Laboratory respectively. The pathogens were also identified after isolation. The identified pathogens were, *Saccharomyces cerevisiae*, *Enterobacter aurogene*, *Citrobacter freudii* *Providencia* spp. Preparation of crude extracts of neem leaves and garlic bulb and determination of the efficacy of these extracts on identified pathogens were conducted. Each identified pathogens were treated with three different concentrations of both neem and garlic extracts, at 100mg/ml, 200mg/ml, and 300mg/ml and streptomycin was used as control. The zones of inhibition were observed after 24hours in each and recorded in each sample.

**KEYWORDS:** *Neem Leaves and Garlic Bulbs Extracts, Bacteria, Post-Harvest Spoilage, Tomatoes*

## INTRODUCTION

Tomato (*Solanum lycopersicum* L.) belongs to the family *solanaceae* and it is an annual sub-tropical fruit vegetable crop. The crop originated from South America and was introduced to Europe in the 16<sup>th</sup> Century and later to East Africa by colonial settlers in early 1900 (Wamache, 2005). Nigeria is the 14<sup>th</sup> largest producer of tomatoes in the world. On the continent, the country is ranked second after Egypt with about 1.8 million metric tons (MT), which she produces annually. With over 48 million tomato farmers across the country, Nigeria accounts for 65 per cent of tomatoes produced in West Africa (Eno-

Abasi *et al.*, 2018). Ironically the country is the largest importer of tomato paste in the world, importing an average of 150,000mt of concentrate per annum, which value at \$170m. (Eno-Abasi *et al.*, 2014) Tomato plays a vital role in meeting the nutritional food requirements, generation of income, foreign exchange earnings and creation of employment (Sigei *et al.*, 2014). The crop is grown for fresh domestic but there is increasing demand for processed tomato products (Mungai *et al.*, 2000). The crop is grown either on open field or under greenhouse technology. Open field production account for 95 % while greenhouse technology



accounts for 5% of the total tomato production (Semini, 2007). Tomato crop does well in warm climate with an altitude range of 0 – 2100m above sea level. It requires rainfall ranging between 760 mm to 1300 mm and deep fertile loam soil that is well drained, with high content of organic matter and a pH ranging between 5-7 (Rice *et al.*, 1994). Fruits are used in salads or cooked as a vegetable, processed into tomato paste, sauce and puree. The nutritional value of tomato makes it a widely accepted vegetable by consumers. Fruits are rich in calcium, phosphorus, magnesium, copper, niacin, iron, folate, Vitamin A, B6, Vitamin E, Vitamin B2, Vitamin C, iron and carbohydrates (Wamache, 2005). Furthermore, the fruit has medicinal value as a gentle stimulant for kidneys, and washing off toxins that contaminate the body systems. It improves the status of dietary antioxidants (lycopene, ascorbic acid and phenols) in diet (George *et al.*, 2004). Tomato juice is known to be effective for intestinal and liver disorders (Wamache, 2005).

Tomato production is constrained by factors such as poor pre-harvest practices, adoption of poor production techniques, rough handling and moisture condensation causing pathogen infestation (Kader, 1992). Packaging in bulk without sorting and grading of produce, damage during transport and storage due to mechanical injuries are other factors contributing to post-harvest losses (Kader, 1992). Inadequate storage, distance and time consuming market distribution, poor access to the market, post-harvest spoilage micro-organisms and cultivars disposition to diseases causes high post-harvest losses of tomatoes (Kader, 1992).

According to FAO (2002), records of post-harvest losses do not exist and if available they do not cover enough period of time and the figures are only estimates made by observers. It has been estimated that 20-50% of tomato fruits harvested for human consumption are lost through microbial spoilage while other losses result from damage by dynamic stresses during transit, and through rough handling during loading and unloading (Kader, 1992; Okezie, 1998). Thirupathi *et al.* (2006) estimated the magnitude of post-harvest losses in fresh fruits to be 25-80 %. Post-harvest decay remains a major challenge in tomato production. The magnitude of post-harvest losses varies from one country to another, one season to another and even one day to another (Mujib *et al.*, 2007). There are numerous micro-organisms that cause post-harvest decay of tomatoes. Among these, fungi and bacteria are the most destructive.

Most of the tomato fruits are also damaged after harvesting because of inadequate handling and preservation methods (Wills *et al.*, 1981). Fruits, due to their low pH, high moisture content and nutrient composition are very susceptible to attack by

pathogenic fungi, which in addition to causing rots, may also make them unfit for consumption by producing mycotoxins (Stinson *et al.*, 1981; Moss, 2002). Mycotoxins are potential health hazards to man and animals and in most cases they are unnoticed. Control of fruit rot also remains a major challenge in tomato production.

Tomatoes are an attractive cash crop for small scale farmers and provide potential source of employment to many rural and urban Nigerians. The tomato fruits have been marketed freshly picked from the field and is the bestselling fresh market vegetable crop (AVRDC, 2006). Despite the human need of tomato, damage as a result of post-harvest spoilage micro-organisms has been of serious concern. Microbial decay is one of the main factors that determine losses and compromises the quality of the produce. The extent of the losses especially through microbial decay has not been quantified in most areas and where this has been quantified the results are short lived. Therefore, the study aims at evaluating ways of managing the post-harvest losses of tomatoes using crude plant extracts.

Several kinds of synthetic fungicides have been successfully used to control the post-harvest decay of fruits and vegetables (Adaskaveg *et al.*, 2000; Kanetis *et al.*, 2007). However, there are three major concerns: Firstly, the increasing consumer concern over pesticide residues on foods which are toxic and carcinogenic. Secondly, predominance of fungicide resistant strains of fungi due to excessive use of fungicides and thirdly, environmental pollution.

Therefore, there is need for new effective means of post-harvest disease control that possess less risk to human health and the environment.

Natural plant products and their analogues have been found as important sources of agricultural bio-pesticides which serve as anti-microbial properties of the plant extracts (Cardelina, 1995; Okigbo, 2009). It has been reported that plants are sources of natural pesticides that lead in new pesticide development. Arokiyaraj *et al.* (2008), Shanmugavalli *et al.* (2009), Swarnalatha and Reddy (2009). Anti-fungal and anti-bacterial compounds of neem plant leaf and garlic bulb crude extracts on rot pathogens of post-harvest tomato fruits are the main target of this study.

### Objective of the Study

The objective of the study was to evaluate the effect of the selected crude plant extracts on major micro-organisms causing post-harvest spoilage of tomatoes in Sokoto, and specifically the study was aimed at:

- Identification and collection of four spoiled tomato fruits sample from two different locations around Sokoto metropolis



- Isolation and identification of pathogenic bacteria causing post-harvest spoilage of tomato
- Preparation of neem leaves and garlic cloves extract
- Determining the effect of crude plant extract on growth of bacteria colonies.

## MATERIALS AND METHODS

### Experimental Location

The research was conducted at Usmanu Danfodiyo University Sokoto, at Microbiology Laboratory for effects of neem leaves and garlic bulbs extracts on the bacterial isolates. Sokoto is located in the Sudan savannah zone in the extreme northwestern part of Nigeria. It lies between latitudes 12°N, 13°N and 58°N and longitudes 4°E, 8°E and 5°E (Mamman *et al.*, 2000). Sokoto has low humidity and high solar radiation, it records annual rainfall between 300mm-800mm and mean temperature of 34.5°C. The dry season temperatures do exceed 45°C during the day time which is the highest recorded in Nigeria, (Adegboyega, *et al.*, 2016).

### Sample Collection

In this analysis, four (4) spoiled tomato fruit samples were collected from different places. Two samples from Sokoto vegetable market (Kasuwan Daji) in Sokoto metropolis, and the remaining two (2) others from Dange Shuni Local Government. Infected tomato fruit samples were identified by physical examination and then collected randomly in a sterilized polythene bags. The samples were then brought to Usmanu Danfodiyo University at Microbiology Laboratory for bacterial analysis.

### Sterilization of Materials

Different Laboratory materials that were used for this analysis were first washed with detergent, rinsed with clean water and air dried. The Petri dishes were sterilized in a hot air oven at a temperature of 160°C for 1hour. For test tubes, 9ml of distilled water were measured using sterilized syringe and poured into the test-tubes. The test tubes were then inserted into an autoclave heater and heated at a temperature of 121°C for 15minutes.

### Media Preparation

Sabouraud Dextrose Agar (SDA) and Nutrient Agar (NA) were the standard media that were used to isolate bacterial pathogens from the tomato samples respectively. Preparations of both Media were conducted according to the manufacturer's instruction.

For bacterial isolation, 2.3g of the NA media was measured using sensitive weighing scale and poured into a conical flask, 100ml of distilled water

was also measured using measuring cylinder. It was then heated using hot plate with frequent agitation till it boils to completely dissolve the powder. The media was inserted into an autoclaving for sterilization at 121°C for 15minutes it was allow to cool and poured into Petri dishes.

### Isolation of Pathogenic Bacteria from Rotting Tomato Fruits

For bacterial isolation, about 0.1ml of the aliquot from the serial dilution of the sample was inoculated using sterile syringe. A bend glass rod was then sterilized to spread the aliquot on nutrient agar surfaces and the same procedure was repeated for the other samples. The inoculated plates were incubated inverted at 37°C for 24 hours.

### Colony Count

Bacterial count was carried out on each of the plate using colony counter to determine the number of bacterial growth. This was obtained by counting the whole plate and using the number obtained to multiply by the dilution factor.

### Identification

#### Gram Staining

This was carried out as described by (Chesbrough, 2000). A drop of water was placed on a clean slide, and a speck of bacterial growth was taken from the culture. The speck was emulsified on the slide to make a thin smear. It was then flooded with crystal violet for 60seconds washed with water, and lugols iodine was added for 30seconds, and washed with water and it was decolorized with alcohol. The smear was finally flooded with safranin to counter stain for 60seconds. It was then washed with water and allowed to air dried. Oil immersion was added and it was viewed at x100 objectives. Gram positive stains purple while gram negative stain red.

### Biochemical Tests

#### Catalase test

Catalase test was carried out as described by (Fawole and Oso, 2001). Catalase is an enzyme which catalyzes the decomposition of hydrogen peroxide to water and oxygen. It will be formed by most aerobic bacteria. A speck of bacterial growth will be transferred with a wire loop to a drop of hydrogen peroxide on the slide. The presence of catalase is indicated by bubbles of gas (Singleton, 1997).

#### Indole test

Indole test was carried out as described by (Singleton, 1997). Indole test detect the ability of an organism to detect Indole from amino acid tryptophan. A speck of each isolate was inoculated into sterile peptone water enriched with 1%



tryptophan in a test tube which was inoculated at 37°C for 48hours. After inoculation, 0.5kovac's reagent was added and shaken gently. In a positive test indole was dissolved in the reagent which then becomes pink.

### **Methyl red test**

Methyl red test was carried out as described by (Chesbrough, 2000). Methyl red test detect the ability of an organism growing in a phosphate buffer medium to produce sufficient acid to reduce pH of the medium (Singleton, 1997). A speck of the isolate was inoculated into the medium and incubated at 37°C for 48hours. Few drop of methyl red was added to the culture. Methyl red positive was indicated by red color formation.

### **Citrate Test**

This was carried out as described by (Fawole and Oso, 2001). Citrate detects the ability of an organism to use citrate as sole source of carbon (Singleton, 1997). A speck of each isolate was inoculated into citrate medium in test tube and incubated at 37°C for 48hours. A positive test was indicated by blue color while a green color denote negative.

### **Urease Test**

This was carried out as described by (Chesbrough, 2000). Urease is an enzyme which hydrolyzes urea to carbon dioxide and ammonia (Singleton, 1997). A speck of each isolate was inoculated into urea agar slant and incubated at 37°C for 24hours. Red color was indicated urease positive while yellow color denote negative.

### **Hydrogen Sulphide Production**

This was carried out as described by (Chesbrough, 2000). This test detects the ability of bacterial species to produce hydrogen sulphide (Singleton, 1997). A speck of each isolate will be inoculated by streaking and stabbing into triple sugar ion (TSI) agar and was incubated at 37°C for 24hours. Evolution of blackening on the medium indicates a positive test.

### **Motility Test**

This was carried out as described by (Singleton, 1997). Motility can sometimes be inferred from the way organism growing on solid media. A speck of each isolate was stab on triple sugar phosphate agar which was incubated at 37°C for 24hours. Motility was observed by spreading of the organism outward from the stab area.

After identifying different organisms, both fungi and bacteria on samples collected, the Petri dishes were labeled, wrapped with masking tape and kept in a

refrigerator before preparing the media for anti-fungal and anti-bacterial tests.

### **Preparation of Plant Crude Extracts**

Crude plant extracts were obtained from neem leaves and garlic cloves. The extraction process was followed the procedure described by Handa *et al.* (2008). Neem leaves were collected from Usmanu Danfodiyo University Plantation and were brought to Agricultural Physical Laboratory for drying. The leaves were washed under tap water, rinsed in three changes of sterile distilled water and dried using sterile blotting paper. They were then placed in the oven and dried at a temperature of 40°C for three days. Garlic bulbs were obtained from University mini market and brought to the same laboratory. Garlic cloves were peeled washed in sterile distilled water and dried using sterile blotting papers. The cloves were cut into smaller pieces and placed in the oven to dry at a temperature of 40°C for seven days. The neem leaves were grounded to powder using sterile mortar and pestle so as to rapture leaf tissues and cell structures to release the active cell contents. The extracts were placed in sterile specimen bottles. The garlic was also grounded into powder by use of a sterile motor and pestle and place in the sterile specimen bottles. This was done to maximize the surface area which in turn enables the mass transfer of active ingredients from the plant material to the solvent.

Fifty (100gms) of each of the powder was put into separate sterile conical flasks and 300ml of distilled water was added to each of the plant powder ensuring that the powder is completely immersed into the solvent, then it was shaken vigorously and allowed to stand on the bench at room temperature but with continued shaking at different intervals for two days. A sterile funnel was placed into a 500mls conical flask and then a Whitman's (No.2) filter paper was folded and placed into the funnel. The extract was poured gradually into the filter paper and allowed to trickle into the conical flask. The filtrate was then poured into stainless plate and covered with a foil paper. The stainless plates were labeled and taken to biochemistry laboratory, Usmanu Danfodiyo University and dried in an oven at 40°C for four days until a powder like substance remains at the bottom of the stainless plates.

### **Effect of Crude Plant Extracts on Growth of Bacterial Colonies.**

#### **Screening of Extracts for Anti-Bacterial Activities**

The agar diffusion method was used. Sterilized nutrient agar plates were prepared and different concentrations of the extraction were also prepared and dissolved in distilled water. 1ml of each



of the 3 identified organisms were added to 6 plates containing 19mls of the nutrient agar and labeled. A sterile cork borer (12mm) was used to make four ditches in each plate. The base of each plate was filled with sterile Mueller Hinton agar to seal the bottom and left for some time to allow it to gel. 0.2mls of the extracts were dispensed into each ditch. The plates were left to allow diffusion of the extracts before being placed in the incubator at 37°C for 24hrs. The zone of inhibition produced after incubation were measured and recorded.

### Control Used for the Screenings

Positive control was made using the antibiotic streptomycin in order to check if the organisms are not resistance to treatment with broad spectrum antibiotic.

### Data Analysis

The biocidal activities of the plant extracts on susceptibility of the tomato samples to the pathogens was analyzed using completely randomized design (CRD) and least significant difference (LSD) was used for mean separation.

## RESULTS AND DISCUSSIONS

### Isolation and Identification of Pathogens Associated with Post-Harvest Losses of Tomatoes Bacteria

#### Bacteria Count

**Table 1 Colony count of bacteria in the tomato samples collected from different locations.**

S/N	Samples	Plate I count	Plate II count	Mean	Standard CFU/ml
1	Shuni	916	484	700	7.0x10 <sup>5</sup>
2	Sokoto	235	696	466	4.66x10 <sup>5</sup>

From the Table 1 above, the result showed that samples collected from Shuni local government contained higher bacterial population than those of Sokoto, plate I collected from Shuni contained the highest bacterial population (916) followed by plate II collected from Sokoto with (696), the third and fourth were plate II from Shuni and plate I from Sokoto with population of 484 and 235 respectively.

bacteria in each sample. In two samples collected from Sokoto vegetable market, *Klebsiella aerogene* previously known as *Enterobacter aerogene* and *Citrobacter freundii* were identified. While *Providencia spp* and *Enterobacter aerogene* were identified in the samples collected from Shuni local government. *Enterobacter aerogene* was present in both samples.

#### Biochemical Test

After conducting different biochemical tests, the tests indicated the presence of two pathogenic

**Table 2 Identified bacterial isolates from tomato samples**

S/N	Sample code	GS	L	G	S	Ci	M	I	U	Ca	Mr	Confermed spp
1	TMT SKT <sub>S</sub>	-	+	+	+	+	+	-	-	+	-	<i>Klebsiella aerogene</i>
2	TMT SKT <sub>L</sub>	-	+	+	+	+	+	-	-	+	+	<i>Citrobacter freudii</i>
3	TMT SHN <sub>S</sub>	-	-	+	+	+	+	+	-	+	+	<i>Providencia spp</i>
4	TMT SKT <sub>L</sub>	-	+	+	+	+	+	-	-	+	+	<i>Citrobacter freudii</i>

Key:

TMT SKT<sub>S</sub>: Tomato sample collected from Sokoto which smaller bacterial pathogens were observed  
 TMT SKT<sub>L</sub>: Tomato samples collected from Sokoto which larger bacterial pathogens were observed.  
 TMT SHN<sub>S</sub>: Tomato samples collected from Dange Shuni local government in which smaller bacterial pathogens were observed

TMT SHN<sub>L</sub>: Tomato samples collected from Dange Shuni local government in which larger bacterial pathogens were observed

G S: Gram staining, L: Lactose, G: Glucose, S: Sucrose, Ci: Citrate, M: Motility,

I: Indole, U: Urease, Ca: Catalase, Mr: Methyl red.

Similar previous researches have also confirmed the appearance of these identified organisms on tomatoes. Brigitte *et al.* (2016) reported



that the dominant species associated with tomatoes were those belonging to the genera *Enterobacter*, *Klebsiella*, and *Citrobacter*.

### ***Klebsiella aerogenes***

*Klebsiella aerogenes* previously known as *Enterobacter aerogene* (Tindall *et al.*, 2017), is a Gram-negative, oxidase negative, catalase positive, citrate positive, indole negative, rod-shaped bacterium. The bacterium is approximately 1-3microns in length, and is capable of motility via peritrichous flagella. These characteristics were observed in the present study and are similar to what was observed by (Tindall *et al.*, 2017).

### ***Citrobacter freundii***

*Citrobacter freundii* is a gram-negative, catalase positive, citrate positive, indole negative, methyl red

positive, it is a species of facultative anaerobic bacteria of the family *Enterobacteraceae*. The bacteria have a long rod shape with a typically length of 1-5microns in length. Most *C. freundii* cells generally have several flagella for locomotion but some are non-motile. (Wang *et al.*, 2000).

### ***Providencia spp***

*Providencia spp* Is a gram-negative, catalase positive, indole positive, citrate positive, urease negative, it is a motile bacterium which belongs to the family *morganellaceae* (Stuart *et al.*, 1943).

Table 3 Anti-bacterial activities of aqueous extract of neem and garlic on bacterial pathogens isolated from the tomato samples

S/ N	Name of plant used	Part of plant used	Extractant	Diameter of inhibition mm/bacterial spp			
				Conc. mg/ml	<i>E.</i> <i>aerogene</i>	<i>C.</i> <i>freundii</i>	<i>Providencia</i> <i>spp</i>
1.	Garlic	Bulb	H <sub>2</sub> O	40	00	00	00
				80	14	16	15
				120	17	19	19
2.	Neem	Leaves	H <sub>2</sub> O	40	00	00	00
				80	00	14	00
				120	15	16	14
3.	Streptomycin			5	23	26	25

Size of cork borer = 12mm

The anti-bacterial activities of neem and garlic extracts on *E. aerogenes*, from the Table 3 above, shows that garlic is more active than neem because it produces 14mm and 17mm zones of inhibition at 80mg/ml and 120mg/ml concentration of the extract. While neem produces effect only at 120mg/ml concentration with 15mm zone of inhibition.

Similar result was observed on *Providencia spp* because neem does not show any effect at 40mg/ml and 80mg/ml concentrations; it only shows its effect at 120mg/ml concentration with 14mm zone of inhibition which was less than that of garlic at 80mg/ml concentration that produced 15mm zone of inhibition and 19mm at 120mg/ml concentration.

The result also shows that garlic extract is more effective on *C. freundii* than neem, by showing 15mm and 19mm zones of inhibition at 80mg/ml and 120mg/ml respectively, it is only on this pathogen that effect of neem extract at 80mg/ml was observed, the result from the table shows that neem extract inhibited bacterial growth with 14mm and 16mm

zones of inhibition at 80mg/ml and 120mg/ml respectively.

The overall activities of both neem and garlic on all isolated bacterial species have shown less effect at all concentrations used compared to streptomycin which was used as the control.

Streptomycin is an antibiotic used to treat a number of bacterial infections. These include tuberculosis, *Mycobacterium avium* complex, endocarditis, brucellosis, *Burkholderia* infection, plague, tularemia, rat bite fever (ASPHSP, 2016). However, streptomycin contains several side effects which include feeling like world is spinning, vomiting, numbness of the face, fever and rash. (ASHSP, 2016). When used during pregnancy it may result in permanent deafness in the developing baby, (WHO, 2008). The above mentioned side effects and many others found in several synthetic chemicals used in the treatment of pathogenic fungi and bacteria were among the main reason why scientist started to think of other alternatives like producing resistance varieties and treatment with natural pesticides.

**Table 4 Effect of Neem and Garlic extracts on isolated bacteria species from tomato fruit samples.**

Treatments	<i>Citrobacter freudii</i>	<i>Enterobacter aurogene</i>	<i>Providencia spp</i>
Neem	10.00	5.00	4.67
Garlic	11.67	10.33	11.33
Control	25.98	22.98	24.98
SE±	7.75	7.24	7.43
Significance	NS	NS	NS

NS=Not Significant

From the table 4 above, the result shown that the inhibition of growth of bacterial pathogens by both neem leaves and garlic bulb extract is not significant compared to the control. However, since zone of inhibition increases with increase in concentration rate, further research needed to be done using higher concentration than what were used in this research and that might produce a significance effect when compared to the control.

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### Summary

This research was conducted to analyze the efficacy of neem leaves and garlic bulbs extracts on identified bacterial pathogens isolated from tomato fruit samples collected from Sokoto vegetable market and Shuni local government Sokoto state. Nutrient agar was used for bacterial isolation at Microbiology Laboratory as well to analyze the efficacy of the efficacy of neem and garlic extract extracts on bacteria.

all at Usmanu Danfodiyo University Sokoto.

Three bacterial species were identified after the isolation and both were treated with the extracts that were prepared at different concentrations of 100mg/ml, 200mg/ml and 300mg/ml.

The three bacterial species identified after the isolation were also treated with neem and garlic extracts, both neem and garlic extracts have shown a positive result on identified bacterial species, the bacterial species that were identified includes; *Providencia* spp, *C. freudii* and *E. aerogenes*. However, both extracts have shown less effect compared to streptomycin which was used as the control, although it contained several side effects.

### Conclusion

At the end of this study, it was observed that there are bacteria that cause post-harvest losses of tomatoes in both Shuni and Sokoto. The identified bacteria were *Enterobacter aerogene*, *Citrobacter freudii* and *Providencia* spp.

Neem leaves and garlic bulb extracts were found to have potential anti-microbial compound that inhibit the growth of pathogens isolated on tomato fruits at various concentrations. Result of this study can be an

important step in developing plant biopesticides for management of fruit rots.

### Recommendations

This study recommends that;

- Farmers should disinfect the tomato fruits after harvesting to reduce chance of infection by pathogens. This could be done by use of sodium hypochlorite.
- Further research need to be carried using higher concentrations of extracts than the quantity used in this research, which might be enough to substitute the used of synthetic chemicals.
- Government and other research organizations need to sponsor researches on this aspect since these medicinal plants are abundant and affordable, this can help greatly in reducing several diseases such as cancer that might occur as a result of ingesting chemical residues.

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# IRRIGATION SYSTEMS AND ECONOMIC LIFE OF LOWER AMU DARYA POPULATION ACCORDING RUSSIAN SCIENTISTS (THE BEGINNING OF THE XX CENTURY)

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## ANNOTATION

*This article describes the economic life of the Lower Amudarya basin in the early twentieth century, the study and research of irrigation systems by Russian scientists.*

**KEYWORDS:** *Lower Amudarya, (SredazEKOSO), pump, Uzboy, Shorahon, Chimbay, Irjeyop, Kokkol, corn, kavasha, Gurlan, Kungrad*

## DISCUSSION

Karakalpakstan Republic and Khorezm region, which are part of Lower Amu Darya basin, have been studied by many foreign scientists, travelers, oriental study researchers. Especially, at the beginning of the XX century Khiva Khanate region and Central Asian countries (Bukhara Emirate and Turkestan governor-generalship), which were located in Lower Amu Darya basin, have been studied by many Russian scientists and oriental study researchers. For example, at the end of XIX century and at the beginning of XX century a lot of scientists from Tsar Russia like L.S.Berg, R.M.V. Nechkina, A.V. Yakunin, P.P. Ivanov, B.V. Lunin, X.D. Fren and P.I. Lerx, A.A.Gordiyenko, I.V. Pogorelskiy, V.V.Bartold came to the Khiva Khanate and the lands of Karakalpak and studied their social, economical, political and cultural life. A lot of information about irrigation systems, economic situation in Lower Amu Darya region can be found in the studies of F.P.Morgunenko, V.V.Tsinzerling, S.K.Kondrashev, M.A.Stekolnikov, N.I. Vavilov about the Khiva economy and irrigation systems at the beginning of the XX century. Especially, the findings of a renowned traveler, well-known hydrologist Vladimir Vladimirovich Tsinzerling(1884-1954) are noteworthy. In the Amu Darya Delta from 1913 Tsinzerling managed the group which prepared the initial project of Bosh

Turkman canal. In 1918, along with new government, Tsinzerling was added to organisational bureau of national infrastructures, and he participated actively in the start of projects regarding the recreation of irrigation, amelioration and forests. In 1924, being sent by Central Asian Economical Committee (СредазЭКОСО) to Khorezm region in order to solve water problems in the Lower Amu Darya basin, he gave suggestions about directing Amu Darya stream towards the left bank. Also, his article named "Irrigation and cotton growing prospects in Amu Darya Delta" ("Перспективы орошения и хлопководства в дельте Аму-Дарьи") has significant importance. After Tsinzerling returned to Moscow, collecting his findings that he learned in Amu Darya oasis, he wrote his monograph called "Irrigation in Amu Darya" (Орошение на Амударье). In this article he pointed out that the land surface in Khorezm oasis rise by average 1mm, also up to 7mm due to the spill of minerals (which are mixed with sand and mud that came from the river) and local fertilizers.

Another hydrologist, accomplished scientist F.P. Morgunenko(1880-1939) also studied water problems in the Amu Darya oasis in the beginning of the XX century. In 1910, he along with researchers like V.Aleksandrov and A.Esayev obtained a patent for the project of a device which can lift water upwards (a pump). In 1915, the



scientist suggested irrigate the dry lands in South-eastern Caspian with the extra water of Amu Darya during winter and the periods of flood. He also suggested join the canal, which came from Takhiatash and passed nearby Sariqamish lake, to the 500km confluent of Old Ozboy, and direct river water up to Nebit mountainside. In 1926, G.P.Sazanov, M.N.Yermaloyev, B.X.Shlegel under the supervision of F.P. Morgunenko prepared the project of the large canal which is in the course of Amu Darya that passes through Qorqadam desert. In 1927, F.P.Morgunenko in cooperation with engineer V.V.Poslovskiy studied the construction prospects of the irrigation systems in Southern Khorezm and gave several useful suggestions. Among them was the new ideas of directing extra water of the Ozboy watercourse of Amu Darya, which was located between the borders of Ustyurt and Qoraqum but had dried, towards the Caspian Sea. Morgunenko through his studies of irrigation and agriculture in Lower Amu Darya basin wrote his article "Irrigation and cotton growing prospects in Amu Darya Delta". [1] In this article, he gave important information about population and how well the cotton growing practices were developed in Lower Amu Darya at the beginning of the XX century.

One of the Russian scientists S.K.Kondrashev gave much information about irrigation system, economical situation and agriculture of Khiva Khanate at the beginning of the XX century in his book "Орошаемое хозяйство и водопользование Хивинского оазиса" ("Agriculture and water usage in Khorezm oasis"). This book was published in 1916 in Moscow. In this book, conducting observations in the lands of Khiva, Shoraxon and Chimboy, valuable information about living conditions of population, irrigation system, plants of this regions were given. Dividing Khiva into Kohna Urganch, Qipchoq, Xojayli, Toshliyop, Qirq; Shoraxon into Chubuqli, Durgadik, Abdurahmon machit, Kaltaminor, Oqqamish; Chimboy into Irjeyop, Qizil ozak, Chimboy Kokkol regions, he gave information about the economy of the Lower Amu Darya population. Also, S.K.Kondrashev writing about cotton plant in his book, gave information about two types of cotton which were grown: first American (*Gossypium hirsutum*), second local (*herbacuem*)[2]. Local breed was called "kavasha". However, American breed were more commonly grown according to his account. Another plant he mentioned was corn, especially red corn and mayxari corn, he claimed that it was hard to find this plant in other areas except Khiva Khanate and Amu Darya oasis. Writing about lucerne seeds, he mentioned that farmers used local reapers effectively while cutting the lucerne. In Turkestan, there was a dramatic difference between local population and migrant Russians in cutting lucerne. Due to cutting the lucerne cleanly without

leaving any trace on the surface with the reapers, the following lucerne plants grew well for cutting and different branches which came from the roots made the harvest thicker. When Russian farmers cut lucerne with their reapers, around 1-3 vershok (1 vershok is equal to 4.45 cm) stays on the bottom. This stops the eventual growth of the lucerne. Thus, local farmers' reapers were more effective at work according his account.

At the beginning of the XX century, Russian traveler N.I.Vavilov traveled to Khorezm, during his trip, he visited Khiva oasis and gave valuable information. In the summer of 1925, I. I. Vavilov along with V. K. Kobelev and N. N. Kuleshov had a visit to Khorezm oasis which is located in the lower stream and delta of Amu Darya. Studying the cultivated plants of Turkmanistan, Uzbekistan, Tadjikistan, Northern Iran and Afganistan, he concluded that it was essential to discover the role of Khorezm in the emergence of cultivated flora. The expedition studied the agricultural lands of Khiva, Yangi Urganch, Gurlan and Tashovuz. From the areas of Chimboy and Qongirov, N.N.Kuleshov, who mainly dealt with studying lucerne, collected new valuable information.

The seed materials which were collected by the expedition (over 1500 samples) were planted in the branches Practical Botany Institution and the selection stations of Turkestan between 1926 and 1928. The findings of the study were given in a book by N.I.Vavilov "Cultivated plants of the Khorezm region" (1929).

To conclude, the irrigation systems and the economy of the Lower Amu Darya population were at the centre of the Russian scientists attention. Especially, scientific expeditions and trips which were conducted at the beginning of the XX century has significant importance. In this period the economy and the irrigation systems of the Lower Amu Darya population started to be studied widely.

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## ACADEMIC ACHIEVEMENT IN ENVIRONMENTAL SCIENCE OF B.ED. STUDENTS

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### ABSTRACT

*The role of Environmental education is perceived as one that would generate awareness and provide opportunities to gain knowledge, attitudes and skills which are required to protect and improve the environment. This study examines Academic Achievement in Environmental Science of B.Ed. students, with reference to their Gender, Stream of Subjects and Qualification. The Academic Achievement in environmental science was collected from the respective colleges. The results of the present study reflect that there is no significant relationship with respect to Gender, there exist significant relationship in Academic Achievement of Environmental science between Arts and Science students and Undergraduate and Postgraduates student.*

**KEYWORDS:** *Environmental science, Academic achievement, B.Ed. students.*

### INTRODUCTION

As per the orders of the Honorable Supreme court, the subject of Environmental Studies was introduced as a compulsory subject in 2003 at the undergraduate level in all the streams. Supreme Court directed the Universities to include Environmental Studies in their curricula.

The objective behind the order was to raise the environmental conscience and consciousness among the young citizens so that they may realize the importance of environment for human wellbeing. Sustainability issues related to environmental management are more frequently discussed and corporations are engaging more with sustainability matters now. Due to this, global environmental problems such as decline in biodiversity, environmental pollution, waste generation and climate change have become very important. It is next to impossible for Indian companies to ignore the environmental

consequences of their actions. In view of this, the syllabus was well framed and included all the pertinent issues, which are quite relevant in the present context.

The importance of having a environmental science curriculum in colleges.

- The subject gives a direct contact with nature and the knowledge of it.
- Environmental Science encompasses many other science domains.
- Environmental Science encourages collaborative studies.
- Conscientizes students to the problems of the planet earth.

### Definition of the terms

#### Environmental science

Environmental science is an interdisciplinary academic field that integrates physical, biological and



information sciences (including ecology, biology, physics, chemistry, plant science, zoology, mineralogy, oceanography, limnology, soil science, geology and physical geography, and atmospheric science) to the study of the environment, and the solution of environmental problems.

### **Academic achievement**

Academic achievement or academic performance is the extent to which a student, teacher or institution has attained their short or long-term educational goals.

## **REVIEW OF RELATED LITERATURE**

**1. Lincoln Fok (03 Mar 2016)**, a study on Students' academic performance in environmental studies: an empirical study of different groups of secondary school graduates, This study investigated the academic performance of students from different secondary schooling systems in an environmental studies course. Questionnaire survey data and the assessment results of a compulsory course of the students were used for this study. Results indicated significant differences in academic performance in the environmental studies course between three different groups of students. The students that completed a three-year senior secondary education outperformed their counterparts who completed the pre-associate degree and four-year senior secondary education in the environmental course assessment results. Students' environmental attitudes were positively correlated with academic performance on the environmental course, suggesting that students with better environmental attitudes performed better in the environmental studies course.

**2. Naima M Gumaga-Pendi, (Nov 6, 2019)** Academic Achievement in Science of MSU – Maguindanao Students in Relation to Their Science System Admission Scholarship Examination Scores. This research seeks to determine the academic achievement in science of students in the MSU - Maguindanao High School Department. Specifically, it aims to assess the performance of the students in science for the last five years, to determine the significant difference in the academic achievement in science between the students of the science curriculum and the Vocational Agriculture curriculum, to find out the students' performance in System Admission Scholarship Examination in Science for the last five years, as well as the significant difference in the performance in the System Admission Scholarship Examination between the students of the science curriculum and the Vocational Agriculture curriculum, and the correlation between academic achievement in science with that of System Admission Scholarship

Examination scores in Science. The students in the Science curriculum have a mean grade of 81.833 indicating fair performance while the students in the Vocational Agriculture Curriculum has a mean grade of 78.66 indicating poor performance. Students who have high grade in their Science subjects tend to have high scores in the SASE in science. There is a significant relationship between the science grades and the SASE scores of the students.

### **3. Shirin Shafiei Ebrahim (February 2020)**

Environmental Sciences Students' Achievements via Conventional and Technology-Based Instructions. This study is about the roles of instruction through technologies on the students' academic performance in Environmental Sciences subject. Totally, 60 sophomore of a Malaysian public university were selected based on convenience sampling. For data collection, students with close pre-test scores were chosen to be in the same group. For data analysis, SPSS assisted to calculate the mean, standard deviation and independent sample t-test. Based on statistical analysis, technology-based instruction affects students' academic achievement positively and they find it more effective in teaching Environmental Sciences compared to conventional approaches. It is highly suggested that teachers put more efforts into teaching by means of technologies to Environmental Science students to help them improve their academic success.

### **Need for the study**

Our environment is very important to us because it is where we live and share resources with other species. Environmental science enlightens us on how to conserve our environment in the face of increasing human population growth and anthropogenic activities that degrade natural resources and ecosystems. Such highly important field thus requires sufficient and ample awareness among the Environmental Science learning B.Ed., students which in turn inculcate not only the knowledge, besides the basis for sustainable development.

### **Objectives of the study**

The main objective of this investigation is to study the relationship between male and female, Arts and Science students and Undergraduate and Postgraduates student, in their Academic Achievements in environmental science.

The present study has been designed to achieve the following objectives:

- To study the academic achievement of college students environmental science.



- To carry out a comparative study of academic achievements of Arts and Science students.
- To carry out a comparative study of academic achievements of U.G and P.G students.

**Hypothesis**

To attain the proceeding objectives, the following hypotheses are proposed:

- There is no significant difference among college student with respect to academic achievement in environmental science.
- There is no significant relationship between academic achievements of Arts and Science students
- There is no significant relationship between academic achievements of U.G and P.G students

**Population**

The population of this study included all the undergraduate and postgraduate students of B.Ed. Students from different college of Pondicherry region.

**METHODOLOGY**

Stratified random sampling technique was used to collect data from the population.

Sl.no	N	Mean value	Median value	Mode value
Academic achievement	150	39.08	39	45

The academic achievement mean value is 39.08. It is greater than the standard norms value. Hence hypothesis is rejected. The academic

**Tools used**

Academic achievement in environmental science

**Statistical techniques used**

The following statistical techniques are used for the studies

1. Descriptive Analysis- Mean, Median and Mode.
2. Standard Deviation
3. T-test

**Analysis and interpretation of data**

The data collected were analyzes using appropriate devices like mean, median and mode

From the calculated value hypothesis were tested and the level of significance were found. Then the calculated values were subjected to interpretation.

**Hypothesis –I**

There is no significant difference among college student with respect to academic achievement in environmental science

achievement in environmental science of the total sample is high.

**Hypothesis –II**

There is no significant relationship between academic achievements of Arts and Science students

Sl.no	Gender	N	Mean value	Std.Deviation	Std.ErrorMean
1	Art	75	36.44	2.8	6.8
2	Science	75	41.98	3.9	

The calculated value is more than the table value at 0.05 % level of significance; therefore the null hypothesis is rejected.

**Hypothesis III**

There is no significant relationship between academic achievements of U.G and P.G students

Sl.no	Gender	N	Mean value	Std.Deviation	Std. ErrorMean
1	UG	75	38.8	4.14	0.21
2	PG	75	39	3.99	



The calculated value is more than the table value at 0.05% level of significance; therefore the null hypothesis is rejected.

## CONCLUSION

Man is a social animal. Without Environment there is no Society. In order to achieve sustainable development, each and every one should be aware of the environment, the B.Ed., students not be spared. From the study the Research scholar has found out that the knowledge of Environmental Science prevails much better among the Science students compared to Arts students. It is also found that the knowledge of Environmental Science prevails much among the Post Graduate students when compared to Under Graduate students.

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# FACTORS INFLUENCING BUSINESS VIABILITY: ENTREPRENEURSHIP PERSONALITY PERSPECTIVES

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## ABSTRACT

*Entrepreneurship has been recognized as a pillar to the development of a country. In this context, the government plays an important role in the provision of space and opportunities to entrepreneurs through the entrepreneur development agenda. Undoubtedly, every development agenda requires allocation to ensure that every development has a positive impact on the target group, particularly for Bumiputera youths. Therefore, this study aims at identifying the influence of personality on the business continuity of youth entrepreneurs. Using quantitative methods (questionnaires), a total of 387 TUBE entrepreneurs were selected as respondents. The findings revealed that the level of entrepreneurial personality towards the continuity of the business is at a low level. The regression analysis found that there were five factors influencing the personality on the business continuity of the youth entrepreneurs. Therefore, improvement is an important element that needs to be focused on in the process of further strengthening the TUBE entrepreneurship program. In this study, improvement should be initiated from two perspectives, namely entrepreneurs and the organizers, namely the government represented by the Ministry of Entrepreneur Development and Cooperatives (KPUK).*

**KEY WORDS:** *entrepreneurship, business continuity, TUBE, youth, personality*

## 1.0 INTRODUCTION

Entrepreneurship has been recognized as a pillar to the development of a country (Afolabi, 2015). In this context, the government plays an important role in providing space and opportunities for entrepreneurs through the entrepreneur development agenda. Undoubtedly, every development agenda requires allocation to ensure that every development has a positive impact on the target group, especially for Bumiputera youths.

The reduction in allocation or funds for the Ministry of Entrepreneur Development (KPU) was found to have an impact mainly on entrepreneurship programs. The allocation for 2019 was found to be reduced by RM57 millions, from RM636 millions in 2018 to RM579 for 2019 (Ministry of Finance, 2019). This can be seen through previous studies that found that the entrepreneurship program conducted does not have an impact on entrepreneurs to ensure the continuity of the business conducted. In particular, most past studies have also not focused

comprehensively in identifying entrepreneurial-related issues.

Previous studies have been found to focus only on certain perspectives such as the content of entrepreneurship programs (Norsela & Nurul Ilyana, 2016; Suhaila, Suhaily & Muhammad Firdaus, 2014; Muhammad Rashid & Mohd Dzulfadli, 2010; Azmanirah, Ahmad Esa & Wan Mohd Rashid, 2010 ; Cheng, Chan & Amir, 2009), personality (Obschonka, Moeller & Goethner, 2019; Cardon & Kirk, 2015; Balloon, Lecoq, & Rimé, 2013) and business continuity (Irastorzan & Peña-Legazkue, 2018; Rise, 2015 ; Parker, Congregado & Golpe, 2012; Fritsch, Brixy & Falck, 2006). Thus, this paper aims at focusing more comprehensively through the perspective of entrepreneurial personality on business continuity.

## 2.0 LITERATURE REVIEW

Survival or business continuity is very important to be emphasized by entrepreneurs to assess the level of success of their business. By



looking at some important elements identified to be evaluated, it will determine the success of a business developed by the entrepreneur whether it is a success or vice versa. It is quite difficult to measure business success, however it can be seen from many different angles, as stated by (Praag, 2003). Having viewed from various angles and interests, several important things will be evaluated to measure the business viability of youth entrepreneurs in Malaysia, namely business ownership, increased income and increased revenue and products of their business.

There have been several reports in the major media on the impact of the Covid-19 and PKP crisis on economic sectors, especially the agricultural sector. Farmers, for instance, are cut off from daily incomes as a result of the distribution chain being affected due to the closure of support sector operations, the absence of workers, and declining cash reserves (Dzulkifli, 2020; Aling, 2020). Some entrepreneurs are beginning to take alternative approaches in business operations to ensure income sustainability. However, for micro -farmers or smallholders in rural areas, the constraints of existing infrastructure support limit business operations throughout the PKP.

To ensure business continuity, distribution chain support should be seen as the main element to be given attention to (Nurdin, Chan, Selvadurai & Suraiya, 2020). Every individual who ventures into the field of entrepreneurship has high hopes and ambitions that is to succeed in businesses. Achieving success is not something that is easy for entrepreneurs; one of the factors that entrepreneurs need to pay attention to is the personality factor. Discussions emphasizing successes and failures of entrepreneurs with personality factors have long been discussed in the past 20 years, indicating the role of personality in entrepreneurship is of key importance (Gartner, 1988).

To be successful, entrepreneurs are required to equip themselves entrepreneurial success orientation, which includes attitudes namely being proactive and innovative as well as being a risk taker. In addition, entrepreneurs also need to have a competitive attitude, autonomy, have corporate motivation, have the initiative to improve themselves. a person who is flexible and agile to perform work (Abd-Hamid, Azizan & Sorooshian, 2015) Apart from having a certain attitude to succeed, entrepreneurs also need to have a coordination between personality and vision to be achieved. Deborah et al (2008) asserted that entrepreneurs who have high prospective values will have diverse personalities, however the differences and similarities found in a handful of young entrepreneurs can be a factor that pushes and attracts them to continue to be in this field of entrepreneurship.

Based on a study on entrepreneurship conducted by Doris (2013), it was found that there are two main things that need to be considered in the study of entrepreneurship. The first self-factors of entrepreneurs including entrepreneurial characteristics, and the second is related to the influence of the environment, which are, cultural, political and economic factors (McDougall & Oviatt, 2020; Mostafa, Wheeler & Jones, 2019). When it comes to personality, one thing that can't be ignored Big-5 personalities. is a stimulus to an individual's actions on their performance (Zhoa & Seibert, 2006; James & Mazeroll, 2002). This personality is able to stimulate youth entrepreneurs to think creatively and innovatively in running their business. This study will reveal the relationship between business continuity and the Big-5 personality factors, as a study conducted by Ciavarella et al (2004) uncovered that in the 1980s, the Big-5 personality was found to be the basis of individual personality structure. A strong personality foundation, according to Zhoa (2009) is believed to ~~can~~ guarantee the success of an entrepreneur even if entrepreneurs lack other resources. On the same vein, Zhoa (2009) and Ciaverella et al (2004) in a study related to the influence of personality on entrepreneurial success, found that environmental factors alone cannot guarantee entrepreneurial success as entrepreneurs will be able to generate ideas for the purpose of obtaining their own resources when they have creative ideas.

According to Kirkpatrick (1975, 1994, 1996, 2000), reaction evaluation is known as customer satisfaction evaluation. This is because at this stage it is to measure the participants' perceptions of the training program they have attended. Frequently asked questions are related to instructor presentation techniques, suitability of course topics, participants' perceptions of the value of training modules, relevance of course content to assignments and the possibility of using new skills when returning to work. Reaction evaluation is very important because it provides meaningful feedback to help the organizers evaluate the training program and also provide comments and suggestions for improvement of the training program in the future.

For Kirkpatrick and Kirkpatrick (2005a) as well, reaction measurement plays a pivotal role and is relatively easier to be conducted. To them, top management is likely to make inaccurate decisions through what they hear about a training program, and with the assessment of reactions, real and valuable data can be collected to find out the reactions of participants. Accurate reaction assessment is very important because participants' interest, attention and motivation have an influence on the learning that will take place. In most studies, assessment of learning is to measure changes in attitudes, increase in



knowledge and increase in skills after the training program attended (Kirkpatrick, 1994). For Mohd. Azhar et al. (2005) knowledge is the level of awareness in the form of truth, principles and information. While Jarvis (1996) argues that knowledge can be seen as a level of awareness or a close relationship with something that provides benefits through experience, learning or thought.

### 3.0 METHODOLOGY

A sample is a portion of a set of respondents selected from a larger population for the purpose of the study and a subset of the population selected for the study. The population for this study was entrepreneurs consisting of youths. Analysis unit of this study is the youth entrepreneurs involved in the Tunas Usahawan Belia Bumiputera (TUBE) entrepreneurship program. To date, there are 4,380 youth entrepreneurs in the TUBE entrepreneurship program however only a sample group was approached as the respondents. The study adopted simple random sampling method (Krejcie and Morgan, 1970) in which questionnaires were distributed as the instrument for the research. The list of participants was obtained from the data of participants of entrepreneurship development programs. The respondents were selected based on the age classification of entrepreneurs stated by Chigunta (2002) and Oseifuah (2010).

Linear regression analysis was employed to identify the factors influencing the dependent variables. The dependent variable in the study is the personality. As such, the linear regression equation used in the data analysis is illustrated as follows:

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n \quad (1)$$

where:

$a$  = constant

$Y$  = dependent variables

$X$  = independent variables

$b$  = coefficients

### 4.0 FINDING AND DISCUSSION

The effectiveness of a program implemented by the government requires the cooperation of the community. Therefore, for the TUBE entrepreneurship program to be successful, it is impossible if only one party plays a role. Thus, this section will look in depth at the role played by the participants of the TUBE entrepreneurship program themselves.

Table I shows the findings for the regression analysis for the factors influencing entrepreneurial personality. The variables for entrepreneurial personality consisted of views, goals, critical, relaxed, ideas, nervous, errors and frustrations. It was found that there were five found to be significant with significance level of 0.01 and 0.05 namely goal, critical, nervous, error and frustration.

Significantly, the variables of goal, critical, nervous, error and frustration were found to chiefly influence the entrepreneurial personality of the TUBE program. Thus, the null hypothesis was rejected and to summarize, these factors accounted for 64.5 percent in identifying the factors influencing the personality of the TUBE program entrepreneurs. These findings are in line with studies conducted by Siti Masayu and Fatimah (2020); Cheng (2020) as well as Flanagan, Lu, Shen & Jewel (2007).

**Table I: Factors Affecting Entrepreneurial Personality**

Personality	Statistic
View	0.057
<b>Goal</b>	<b>0.408***</b>
<b>Critical</b>	<b>0.343***</b>
Relax	0.018
Idea	0.004
Feeling	-0.110
<b>Nervous</b>	<b>-0.229***</b>
<b>Error</b>	<b>-0.190***</b>
<b>Frustrated</b>	<b>0.441***</b>
Dodge	-0.389
Sig = 0.000	
R <sup>2</sup> = 0.645	

Note: \*\*\* significant at 1%

The results indicate that the level of entrepreneurial personality towards business continuity remains at a lower level. In addition, the findings also show that there is a significant relationship between entrepreneurial personality and business continuity. Where entrepreneurial

personality acts as a moderator in identifying significant variables. With the existence of this relationship, it can be concluded that there are certain factors that influence the personality of the entrepreneur on the continuity of the business conducted.



## a) Personality

Without entrepreneurs it is impossible for an entrepreneurship program to run. However, for entrepreneurs who follow the TUBE entrepreneurship program, it was revealed that the personality factors of the entrepreneurs themselves influence the ineffectiveness of the TUBE entrepreneurship program. Among the problems faced by the entrepreneurs who have joined the TUBE entrepreneurship program are no long-term goals in business, not reviewing results critically, nervous in running a business, not learning from mistakes and easily disappointed if plans made fail.

These findings were found to be contrary to the meaning of entrepreneurs as explained by Abd-Hamid, Azizan & Sorooshian (2015).

Entrepreneurial personality was found to influence the continuity of the business conducted. This can be seen when 69.8 percent of entrepreneurs do not have clear goals related to their business planning (Table II). Simultaneously, it shows that entrepreneurs who participate in the TUBE entrepreneurship program may only participate in the TUBE program due to the financial factors provided through the program.

**Table II: Business Planning**

	Frequency	Percentage (%)
Grow the business	73	18.2
Job	48	12.0
Uncertain	279	69.8

Without clear planning about the future of the business or the viability of the business, this indirectly affects the emotions of the entrepreneur and causes the entrepreneur to be unable to maintain performance at its best. The effect can be seen when all entrepreneurs who participate in the TUBE entrepreneurship program have their own problems or challenges in running a business (Table III). One

of the challenges entrepreneurs face is themselves. These findings also support the factor why the personality of entrepreneurs who participate in the TUBE entrepreneurship program is at a low level. In addition to self-challenges, entrepreneurs were also found to face problems in terms of competition, assistance or support, economy and market.

**Table III: Business Challenge**

	Frequency	Percentage (%)
Self	65	16.2
Rivalry	123	30.8
Support	89	22.2
Economy	59	14.8
Market	64	16.0

Based on the highlights of the work, most of the previous researchers placed personality factors as one of the independent variables in their studies (Amran et al., 2014; Faradillah Iqmar et al., 2015; Scherer, Brodzinski & Wiebe, 1991). In contrast, Tastan (2013) placed proactive personality factors as a moderating variable in his research conducted in Izmir, Turkey. Many previous research findings indicate that personality factors also influence an entrepreneur's career choice and success (Amran, Ima Illyani & Siti Azreena, 2014; Faradillah Iqmar, Samsudin & Ali, 2015; Singh & Habib, 2013; Tastan, 2013).

In fact, personality factors are not only seen as important in the field of entrepreneurship but also among the factors that contribute to an individual's tendency to succeed in their lives. Although previous studies show this personality factor is quite important, it is still given less attention in

entrepreneurship research especially in this country (Amran et al., 2014). While research by Jaya (2016) emphasizes on the mental attitude of entrepreneurship (mental attitude entrepreneurship) as an important factor to empower entrepreneurship among women from Lombok who work in Malaysia.

Typically, successful entrepreneurs have similarities for certain characteristics and willingness to take risks is the most frequently mentioned trait (Singh & Habib, 2013). In the discussion of personality factors, a number of previous research has focused on physical and mental activities as well as a person's attitudes. In fact, there are various views on what is meant by these personality factors, subject to the theories underlying to discuss this (Amran et al., 2014; Jaya, 2016; Tastan, 2013). Therefore, for the purpose of this research, personality factors refer to self-efficacy (self-efficacy), locus of control (locus of control) and the



need for achievement (need for achievement) as formulated by Amran et al. (2014) as well as risk-taking factors (Singh & Habib, 2013).

## 5.0 CONCLUSION

Improvement is an important element that needs to be focused on in the process of further strengthening the TUBE entrepreneurship program. In this study, the improvement must be seen from two perspectives, namely the entrepreneurs and the organizers, namely the government represented by the Ministry of Entrepreneur Development (KPU). The recommendations in this study are in line with the objectives of the National Entrepreneurship Policy that have been set, namely:

- a) To create a holistic and conducive entrepreneurial ecosystem to support Malaysia's inclusive, balanced and sustainable socio-economic development agenda.
- b) To form a Malaysian society with an entrepreneurial mindset and culture.
- c) Increase the number of quality, viable, resilient, global-minded and competitive national entrepreneurs.
- d) Enhancing the capacity of micro, small and medium enterprises and cooperatives.
- e) Make entrepreneurship a career of choice.

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УДК: 336.74 (575.1)

## OPPORTUNITIES FOR IMPROVING MONETARY POLICY IN THE REPUBLIC OF UZBEKISTAN

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### ANNOTATION

*The article identifies the problems associated with the improvement of monetary policy, carried out by the Central Bank of the Republic of Uzbekistan and developed scientific proposals aimed at solving these problems.*

*The author identifies the following problems as topical problems associated with improving monetary policy: the lack of a discount policy of the Central Bank, a small volume of open market transactions, the lack of stability of the national currency, a high proportion of all cash in the money supply.*

*Also, the article studies the scientific and theoretical views of foreign scientists and economists on improving monetary policy.*

*Based on the analyzes carried out in the process of writing the article. Scientific conclusions are formulated and scientific proposals are developed, which serve to substantiate the possibility of improving monetary policy. So, in the author's opinion, in order to improve the open market policy of the Central Bank, it is necessary to increase the objects of operations of the open market at the expense of corporate securities of residents - bonds, shares, certificates of deposit that have high ratings from international rating agencies.*

**KEY WORDS:** *Central Bank, monetary policy, discount policy, inflation, exchange rate, open market policy, draft, money supply, cash, refinancing rate.*

### INTRODUCTION

In modern conditions of development of the economy of Uzbekistan, improving monetary policy is one of the main directions of reforming the national banking system.

In the Decree of the President of the Republic of Uzbekistan No. PP-3272 of September 13, 2017 "On measures to further improve monetary policy", the Central Bank is entrusted with the following tasks to improve monetary policy:

- Improve the practice of coordinating general economic, fiscal and monetary policy;
- To expand the set of effectively applied interest-rate instruments of monetary policy for the operations of providing and attracting liquidity;
- Widely use by commercial banks market mechanisms for the formation of interest rates, including on loans;
- To improve models of macroeconomic analysis and forecasting in accordance with the best foreign experience;

- To increase the transparency and predictability of the conducted monetary policy, including by strengthening the relationship with the public in order to inform about the instruments used and the ultimate goals of the policy [1].

The developed countries of the world have extensive experience in improving monetary policy. Therefore, the study and generalization of advanced foreign experience in the field of improving monetary policy is of great practical importance for Uzbekistan.

The improvement of monetary policy has been investigated in the scientific works of such economists as J. Keynes [2], V. Krolivetskaya [3], F. Mishkin [4], A. Navoi [5], J. Tobin [6], M. Friedman [7], B. McCallum [8], J. Taylor [9], L. Katao, M. Terronza [10], S. Kalderov, K. Schmidt-Hebbel [11].

In the scientific works of these economists, scientific proposals and practical recommendations for improving monetary policy have been developed.

**THE PURPOSE OF THE STUDY**

The aim of the study is to develop scientific proposals aimed at solving problems associated with improving monetary policy in the Republic of Uzbekistan.

To achieve this goal, we set the following tasks:

- \* study of the theoretical foundations of monetary policy;
- \* study and summarize advanced foreign experience in the field of improving monetary policy;
- \* analyze the current state of monetary policy

Central Bank of the Republic of Uzbekistan;

- \* identify urgent problems associated with improving monetary policy in Uzbekistan;
- \* to develop scientific proposals aimed at solving urgent problems associated with improving monetary policy.

**MATERIAL AND RESEARCH METHODS**

When writing the article, the official statistics of the Central Bank of the Republic of Uzbekistan, the US Federal Reserve System were used.

Also, the results of empirical studies of experts of the International Monetary Fund, scientists and economists were used.

The study used research and analytical methods such as peer review, induction and deduction, correlation and regression analysis.

**RESULTS AND ITS DISCUSSION**

The developed countries of the world, including the United States, have extensive experience in improving monetary policy.

**Table 1**  
**GDP (Gross Domestic Products) growth rate and macroeconomic monetary indicators in the USA [12]**  
**In percents**

Indicators	2017 y.	2018 y.	2019 y.
GDP	2,3	2,9	2,3
Annual inflation rate	2,1	1,9	2,3
Growth rate of money supply M2	4,5	3,1	7.9
Discount rate federal reserve rate	1,5	2,5	1,75

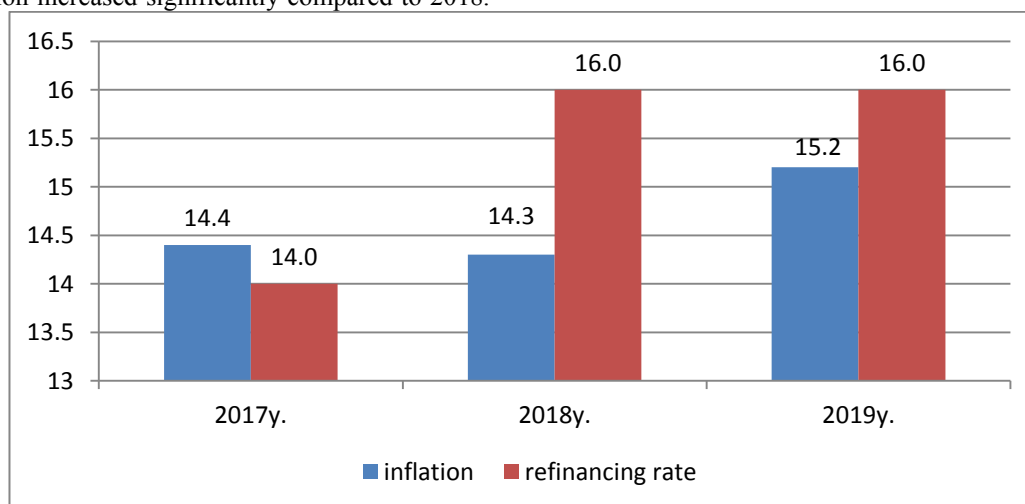
As can be seen from the data in Table 1, a low GDP growth rate was observed in 2017-2019.

These data show that in the United States the inflation rate is considered moderate, that is, the annual inflation rate does not exceed 3%.

As can be seen from the data in Table 1, in 2019, the growth rate of the money supply in circulation increased significantly compared to 2018.

This is due to the significant reduction in the Fed's discount rate in 2019 compared to 2018.

At present, the strategic goals of the Central Bank's monetary policy are to combat inflation, ensure the stability of the banking system, and ensure the stability of the functioning of national payment systems [13].

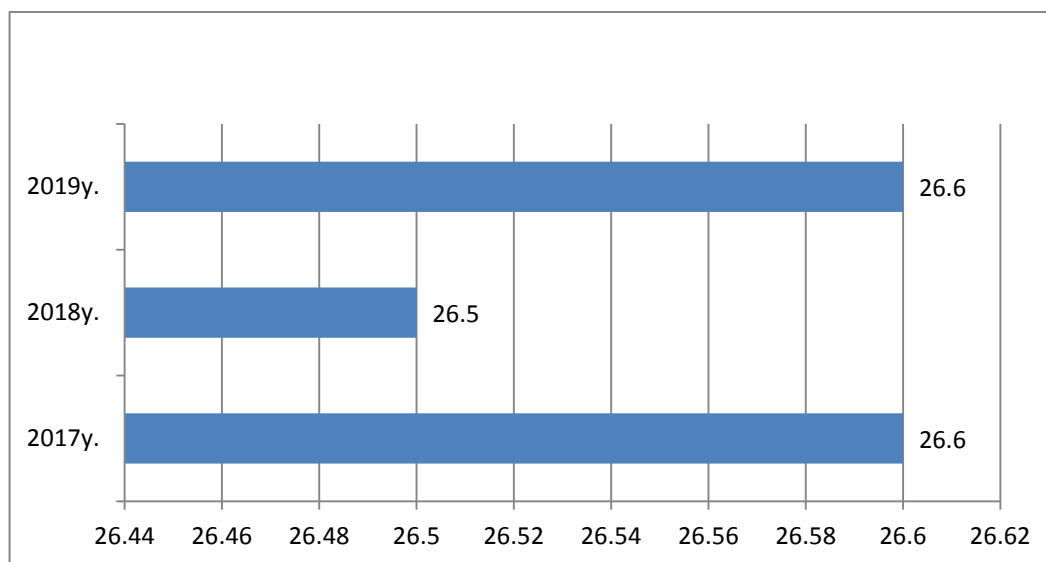


**Fig. 1. Annual inflation rate and refinancing rate of the Central Bank of the Republic of Uzbekistan, in percent [14]**



As can be seen from the data presented in Fig. 1, high inflation does not allow the Central Bank of Uzbekistan to reduce the refinancing rate.

It should be emphasized that one of the pressing problems of the monetary policy of the Central Bank of Uzbekistan is a relatively high share of all cash in the total money supply (Fig. 2)



**Fig. 2. The share of cash in the volume of the monetary aggregate M2 in the Republic of Uzbekistan, in percent [15]**

As can be seen from the data presented in Fig. 2, in the volume of the monetary aggregate, cash occupies a relatively high proportion of the whole.

The problem of securing the national currency is also considered urgent. Over the past three years (2018-2020), the national currency of the republic has depreciated against the dollar by 26.5%.

According to the Central Bank of the Republic of Uzbekistan, in 2019 the total money supply will increase by 13.8% to 91.3 trillion. sum. At the same time, the money supply in the national currency increased by 14.4% (as of January 1, 2020, the money supply in the national currency amounted to 62.8 trillion soums). In turn, positive real interest rates on deposits in national currency increased the attractiveness of deposits. In 2019, the volume of time deposits in the national currency increased by 43%, including an increase in bank deposits of the population by 54%. At the same time, the share of household deposits in the total volume of deposits increased from 25% to 31% [16].

## CONCLUSION

Our analyzes within the framework of this study showed:

- In 2017-2019, there was a low growth rate of US GDP;

- In 2017-2019 in the United States, the inflation rate was moderate, since the annual inflation rate did not exceed 3%;

- In 2019, the growth rate of money supply in circulation in the United States increased significantly compared to 2018, which is explained by a significant decrease in the Fed's discount rate in this period;

- In 2017-2019, the high level of inflation did not allow the Central Bank of Uzbekistan to reduce the refinancing rate;

- One of the topical problems of the monetary policy of the Central Bank of Uzbekistan is a relatively high proportion of all cash in the total money supply;

- The level of devaluation of the national currency remains high.

In our opinion, to improve the monetary policy of the Central Bank, it is necessary to take the following measures:

1. In order to improve the practice of using monetary policy instruments, it is necessary:

\* develop the national market for loan capital by creating a special reserve fund, which will eliminate the danger of a sharp increase in interest rates on loans as a result of increased demand for credit resources;



\* control changes in interest rates through REPO auctions;

\* to increase the volume of operations on the open market of the Central Bank by increasing the objects of operations on the open market at the expense of corporate securities (bonds, shares, certificates of deposit) of residents that have high ratings from international rating agencies.

2. It is necessary to reduce the level of devaluation of the national currency by:

\* An increase in the volume of Central Bank swaps in foreign currencies and gold;

\* Introduction of the definition of the nominal exchange rate of the national currency in relation to the "currency basket";

\* Elimination of sources of pressure on the nominal exchange rate of the national currency (foreign trade deficit, state budget deficit, high growth rate of the state external debt);

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# METHODOLOGICAL FOUNDATIONS OF ENHANCING THE COGNITIVE ACTIVITY OF STUDENTS IN THE PROCESS OF PERFORMING EXERCISES

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## ANNOTATION

*The article is devoted to the analysis of ways to enhance the cognitive activity of students when performing exercises in their native language and addresses one of the important problems of increasing the productivity of native language lessons.*

**KEY WORDS:** *Cognitive activity, abilities, skills, category of cognition, linguistic processes, exercises, development, educational process, independence, assimilation of knowledge.*

Increasing the activation of students' cognition in the process of performing exercises in their native language - the conscious mastering of theoretical information through practical exercises, consolidating the knowledge gained, their systematization and generalization - this, therefore, concretization of the concepts of abstract grammar, leading to an increase in the level of knowledge.

Cognitive activity is the process of mastering theoretical knowledge, acquiring skills and abilities. Cognitive activity, being the psychological side of teaching, shows what judgments and thoughts in the minds of students appear as a result of pedagogical influence on them, to what extent these judgments of thought are manifested in the process of teaching knowledge and forming a worldview. In the process of cognition, the most important place is occupied by knowledge, skill and skills. It is known that knowledge is productive in the assimilation of the rules of languages in various linguistic processes, and skill, taking into account the implementation of goals and objectives, is the assimilation of this activity, with diligence and pleasure. When studying each topic and performing related to them. When studying each topic and when performing exercises and independent tasks related to them, the acquired skills are applied in practice. Skills are one of the components of cognitive activity. Skills in the conditions of performing complex tasks receive practical consolidation, with the help of exercises and reach automatism. When performing the exercises,

the student acts depending on the condition set in him: he performs the exercise in writing or orally, in this process he consolidates the knowledge gained on this topic in his memory, forms judgments. Without skills, the exercise process does not reach the goal.

The mastery of knowledge by students, the development of their skills and abilities are directly related to the activation of their cognitive activity. I. Shamova notes that if, on the one hand, the phenomenon of knowledge is determined by the content of educational material, then on the other hand, it is based on objective laws of assimilation of knowledge. Cognitive activity, being a constant category of cognition (this means a purposeful and productive cognitive act), manifests itself at all stages of cognition, starting with direct comprehension of a specific event and ending with its theoretical development). [10.p.46]

In the process of learning, the student is under the influence of various psychological factors, feeling, understanding and memorization. As a result, it turns out to be able to task and link various themes. Through understanding, it can be deeply analyzed, understand the essence of the material being absorbed and retains it for a long time. Analysis, synthesis, induction and deduction are considered external forms of knowledge. So, for example, T.S. Khrasota noted that in the learning process, the student argues. These his mental operations are directed to the knowledge of the subject, in their aggregate form cognitive activities. [4.p.12]



What is the activation of knowledge in the learning process of schoolchildren? What factors are the activation of cognitive activity, too? This problem of various pedagogical and psychological works did not receive an unambiguous interpretation. E.G. Mingazov's activation of cognitive activity characterizes as follows: noted that the activation of knowledge is the interpretation of reality when the student is happy to have new sources of knowledge, seeks to perform the tasks requiring mental tension and being an indicator of mental activity, is more manifested in the interest of knowledge than to the learning occupation. [6.p.34]

I.F. Kharlamov also believes that the activation of the knowledge of students is characterized by the desire to learn how to highlights and strong will [7.p.31]. T.I. Shames emphasizes that the activation of cognition consists of the desire for the development of knowledge and inclusion in the work of the activities of ensuring the achievement of the goal. [10.p.46]

Activity being a psychological side of training is the desire of a student to the knowledge, to fulfill their mental operations, treatment in the learning process except materials in textbooks and to other sources, as well as a positive attitude towards knowledge. Consequently, the activation, turning on the peculiarity of the psychology of the student is the main indicator of the student's activities in the learning process.

According to V.A. Dobrosmislova is the highest stage of activation consists in understanding the student of the topic [2.p.40-42]. L.P. Aristova also binds the activation with creativity. The highest activation activities are creative interpretation, creative understanding. Pupils are creatively suitable for the material studied: change the structure of the material, build their own options, are looking for various ways to perform the task, creatively designs examples [1.p.36]

Activation in the learning process, being the result of the productive activity of the teacher, turns out to be a means to enhancing students' activity. Activation is a prerequisite for the formation of the worldview of the institution.

One of the types of activation is a fruitful search associated with the teacher's activities through teaching in the lesson process, as well as directing the student to the search for various operations that require creative comprehension. N.S. Rozhdestvensky argues that activation is a search for productive techniques for high-quality mastering of materials, causing students from unwillingness to strive to complete the task [5.p.3].

In the studies of famous scientists M.A. Danilov, V.P. Esipov, M.N. Skatkin, activation is considered as the basis for increasing the productivity of the

lesson. Here, the dominant is intellectual (mental) activity, which, in order to improve the quality of the lesson about the studied subject, significantly enhances and excites the student's mental activity and is the most important means of activation.

According to A. Gulomov, activity is a broad concept, by activity we mean the activity of students in the process of study, work and fulfillment of public assignments. Learning revitalization, being an integral part of general revitalization, is an activity aimed at assimilating knowledge and cognition. Therefore, we can say that the activation of cognition, being a product of the child's activity, takes an active part in the assimilation of knowledge. [8.p.8]

Activity, A. Gulomov continues, - the consolidation of human knowledge, is considered as the most important condition for satisfying a need. Activation in the process of certain activities enhances the mental abilities of a person, his feelings and sensations, and is achieved through the development of the need for work. Its comprehension, demonstrating mental activity, firstly, is introduced into practice as a result of external influence (textbook materials, the method used by the teacher, aids and techniques), and secondly, internal needs - activity is manifested as a result of self-activation [9.p.6].

We fully support this idea of A. Gulomov. Indeed, the student's activity in the process of study and social activity is an integral part of the general activity. The activation of cognition, being the product of the student's activity, takes an active part in the assimilation of knowledge and, being an indicator of the strengthening of mental activity, is the results of the teacher's activity to activate the process of student cognition.

The level of requirements for teaching the native language at school is, first of all, one of the principles of sufficient teaching and is considered a necessary condition for the full implementation of the principle of activation into practice. "The activation of the educational activity of students in the lessons of the Russian language is associated with an appeal to the activation of the principle of teaching

To enhance the activities of students in the classroom, it is necessary to achieve a conscious assimilation of the material. Conscious assimilation is associated with the vigorous activity of students. Since if the cognitive activity of students is not associated with activation, then there is no reason to speak of a conscious mastering of the topic.

In didactic literature, the concept of consciousness means a thorough assimilation of character and facts, phenomena in accordance with the laws of the topic being studied, the ability to make deep conclusions and generalizations, conduct



a comprehensive analysis and thus systematize the knowledge gained on the topic, as well as the correct interpretation of the topic, and as a result, the possibility of its independent development. There are various methods and ways for the productive use of the above exercises: among them are various grammatical games, the organization of independent work, in general, in order to make the classes more interesting, it is necessary to increase the process of activating cognition.

Activity-activity is closely related to independence. At the heart of each vigorous activity is independent mental activity, independently thinking students, demonstrate vigorous activity in the classroom. Consequently, independence is one of the most important enhancement of cognitive activity. If the student cannot independently select examples on the topic under study, then at the same time he will not be able to complete the exercise on the given topic.

The students' need for independent thinking is formed in the process of independent work in the lesson. The need for independent thinking develops in the process of gradual transition in the lessons from simple to complex. In addition, the variety of offered independent work, as well as the construction of tasks that require logical thinking, arouses students' interest, teaches them to think independently, and increases the productivity of lessons.

Learning exercises are one of the means of teaching didactics and allow you to teach students independent work and conscious assimilation of the material.

The systematic and productive use of exercises in the lessons of the native language is considered one of the most important conditions for enhancing the cognitive activity of students.

If, in order to increase the productivity of the lessons, the teacher during the lesson does not try to systematize the exercises for their greater productivity, then there can be no question of the effectiveness of the lessons. Since if the student cannot apply the knowledge gained in practice, then one cannot talk about the conscious assimilation of the material. Theoretical positions are learned only as a result of practical exercises.

Knowledge is crystallized only in the continuation of active practical activity. The highest stage of the process of knowledge is associated with the step of activating the exercise. One of the main conditions for the intensification of the cognitive activity of students in the course of the lesson is the awakening of interest in the performance of exercises.

Interest plays an important role in all learning activities. It is believed that the interest

caused by the learning of knowledge is an indicator of an active attitude to study. To achieve an active attitude towards classes, various ways of involvement of students are applied, for which it is necessary to find optimal ways to achieve this goal. To upbringing interest in the native language, firstly, you need to tell about the place occupied by the language in public life, about the meaning of its study for other sciences, about the richness of the language, bring various examples from life characterizing the beauty of the language, organize contests between classes, evenings Sciences, dramatic circles, secondly, to properly select training methods, to use the training tools in a timely manner, to accurately determine the lesson's tasks and find the best ways to perform exercises.

(Of course, the knowledge of the teacher, speech and impressionability of students) play an important role here.

What determines the interest of students to perform exercises is a means of ensuring interest in the study of the native language.

An important role in the intensification of students' activity is played by the unity of the purpose of exercises. It is known to ensure that every exercise does not remain only training, it should be raising and developing. The exercise material should be directed to the ideological and political, moral and aesthetic education of students, as well as the development of such psychological categories, as thinking, will, character, ability. Exercise materials (sentences, texts), if possible, should not be scattered. They consider the young age of students, should be accomplished from the famous literature, textbooks and magazines. Significantly activates the activities of students compliance with the requirements of the topic, brevity, emotional and educational influence on the student, a variety of genres.

Thus, the systematization of exercises in textbooks provides that each exercise has not only a learning value, it should perform educational and developing importance.

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## TRAINING STUDENTS OF UZBEK GROUPS OF NONPHILOLOGICAL DIRECTIONS CONJUGATION OF THE IMPERFECT VERB OF THE RUSSIAN LANGUAGE BASED ON A GRAMMATIC MODEL

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### ABSTRACT

*The article highlights one of the easy ways of teaching the conjugation of an imperfect verb on the basis of grammatical models of students of Uzbek groups of non-philological directions.*

**KEY WORDS:** *verb, model, grammatical model, conjugation, imperfect form of the verb, speaking, communication, inofon, native speaker.*

In every language, the action of someone or something plays a dominant role. And, of course, this action is indicated by a verb. Without knowing the verb of the native language, a person cannot learn to speak a foreign language. Because all our dialogues are about action. It should also be specially noted here that mostly (80%) people who are familiar with each other enter into the dialogue. For example, when we enter into a dialogue with someone, we must ask such questions as: - *Откуда ты идешь?* - *Где ты была?* - *Ты поступил(а) в университет?* etc. (dialogue between acquaintances). - *Где вы живете?* - *Откуда ты приехал(а)?* - *Кто вас пригласил?* etc. (dialogue between strangers). In all languages of the world, verbs are written and pronounced differently, but they mean the same action. For example, the verb *читать* in different languages is spelled differently, but it means reading something (read a newspaper, magazine, etc.) or someone (read A. Pushkin, Ch. Aitmatov, etc.). It cannot be that the verb read would mean another action. Therefore, we propose to start teaching speaking with a verb and consider 15-20 verbs in each lesson. This is necessary important, as we said already, verbs play an important role in the degree of speech.

When teaching speaking, two circumstances should be taken into account: a) training in prepared or unprepared speaking is carried out and b) skills and abilities of dialogic or monologic speech are formed [1,49]. In order to speak a non-native

language, a person must first of all know his native language well and be able to compare his native language with the target language. If a person thinks critically in relation to comparison, then it will be easier for him to study a non-native language, in particular Russian.

In both Russian and Uzbek languages, the verb is considered the largest and most difficult grammatical category to study. This is due to the fact that in the Russian language the verb as a part of speech is characterized by certain categories: type, time, person, voice, mood, gender and number.

Verb categories of kind, tense, person, voice, mood, gender and number exist in the Uzbek language, but in this language verbs do not have categories of kind and gender.

In the Uzbek language, the indefinite form of the verb is denoted by the ending *-моқ*. For example, *ўқи-моқ* (read), *гапир-моқ* (to speak), *юр-моқ* (to walk), etc. And in Russian, the indefinite form of the verb is indicated by the suffixes *-ть, -ти, -чь*. For example, *чита[ть], говори[ть], нес[ти], вез[ти], се[чь], пе[чь]*, etc. A large number of indefinite forms of verbs are indicated by the suffix *-ть*. Non-philological students change the form of the verb in their native language as:

*Мен ўқи-япман* (I read)

*Сен ўқи-япсан* (You read)

*У ўқи-япти* (He (she) reads),

and this seems to them as a common occurrence, and when they learn another language, in our case



Russian, they pay almost no attention to it and make gross mistakes. For example, instead of – Я читаю. use – Я читает. And, of course, these mistakes also lead to the incorrect use of the verb in the tense category. A person who cannot correctly change the form of a verb cannot correctly use it in the category of tense.

In order to form speech competence for the conjugation of the imperfect form of the Russian verb among students of Uzbek groups of non-philological directions, it is necessary to use grammatical models. There are various interpretations of the term "model" in both linguistic and other sciences. For example, E.G.Azimov and A.N.Shchukin give the following definition of the term: "A model in linguistics is an illustration of the use of a structure in language lessons, which has a specific lexical content; a speech or linguistic sample given in order to facilitate the completion of the task" [1,145].

Our proposed grammatical model allows students of Uzbek groups of non-philological directions to simultaneously study the change in the forms of verbs and their use in tenses.

Before completing Table 1, the teacher explains that in any language a verb has three main tenses. These are present, past and future tenses. And in any language there are three main types of sentences: affirmative, interrogative and negative.

In the first lesson, it is proposed to consider changing the forms of verbs only with personal pronouns я, ты, он (она). Because mostly masculine and feminine nouns are animate. There are very few animated neuter nouns, and they are used very rarely in the oral speech of foreigners. This is an animal, a face (meaning "man"), an insect, a child, a mammal, a creature ("living organism"), a monster, a monster, a bogeyman, and others.

Table 1

Interrogative sentence	Affirmative sentence	Negative sentence	
Я читал(а)? Ты читал(а)? Он (она) читал(а)?	Я читал (а) Ты читал(а) Он (она) читал(а)	Я не читал (а) Ты не читал(а) Он (она) не читал(а)	Past tense
Я читаю? Ты читаешь? Он (она) читает?	Я читаю Ты читаешь Он (она) читает	Я не читаю Ты не читаешь Он (она) не читает	Present tense
Я буду читать? Ты будешь читать? Он (она) будет читать?	Я буду читать Ты будешь читать Он (она) будет читать	Я не буду читать Ты не будешь читать Он (она) не будет читать	Future tense

It is proposed to start work with Table 1 with an affirmative proposal of the present tense. Because the main complex construction for a foreign student is found here. The teacher also explains that the first person singular of almost all the verbs in –ать and –ять take the ending –ю, the second person is –ешь, the third person is –ет. For example, думать – я думаю, копать – ты копаешь, открывать – он открывает, гулять – я гуляю, кашлять – ты кашляешь, примерять – он примеряет, etc.

After that, in order to obtain the desired result, the teacher must conduct a survey using some verbs in –ать and –ять. For example, it can be such verbs as думать, открывать, копать, делать, стирать, отдыхать, закрывать, гулять, примерять, кашлять, кушать, купать.

Studying the past tense of Russian verbs is much easier. Here, the teacher must explain that all verbs ending in –ть take the ending –л or –ла. This is very easily perceived by foreign students, where –ть is removed and instead of it is written –л or –ла. This is determined by the fact that in the Russian

language there is a category of gender, but in the Uzbek language this category does not exist. For example, закрывать – я закрывала, готовить – ты готовила, любить – он любил, писать – она писала etc. This means that men use – Я включал, and women – Я включала.

After explaining the past tense of the verbs, the teacher should again conduct a frontal survey using some verbs. Here you can use verbs such as писать, рисовать, копать, делать, стирать, выключать, жить, бегать, ходить, танцевать, искать, пить.

The future tense remains. In Russian, there are two forms of the future tense - a simple and complex future tense. In the first lesson, only the rules for using a complex future tense should be explained to students.

In order to form a future complex tense, you need a verb быть, which in the future tense has a completely different form -

Я буду  
Ты будешь  
Он (она) будет



and in the present tense also has a generally different form - **есть**, but this verb with personal pronouns is not used at all in modern Russian. In the present

tense, this verb is actively used in English and Czech. And in Uzbek (in other Turkic languages too), it is used in exactly the same way as in Russian.

Table 2

Interrogative sentence	Interrogative sentence	
Я был(а) Ты был(а) Он (она) был(а)	Мен бўлдим Сен бўлдинг У бўлди	Past tense
Not used		Present tense
Я буду Ты будешь Он (она) будет	Мен бўламан Сен бўласан У бўлади	Future tense

Thus, the future complex tense is formed with the help of the auxiliary verb be + infinitive. For example, **Я буду читать, Ты будешь читать, Он (она) будет читать.**

As examples for conducting a frontal survey, the following verbs can be given: **плавать, рисовать, копировать, делать, стирать, танцевать, целовать, держать, ходить, танцевать, искать, пить.**

The interrogative and negative sentences remain. Negative sentences are formed by adding a **НЕ** particle in front of verbs. And this particle always gives them a negative meaning. It is important to note that in negative sentences, verbs are conjugated exactly as in an affirmative sentence. Only the particle **НЕ** is written between the person and the verb. For instance,

**- Я читаю. - Я не читаю.**

In Russian, an interrogative sentence is formed using intonation and an interrogative word. For instance,

**Ты читаешь?** (using intonation)

**Где ты читаешь?** (using a question word).

After filling out the table, the teacher dictates examples in the native language of the students, and the students translate them into Russian. And here errors appear in the use of some verbs.

Other examples can be cited:

<b>Рисовать</b>	<b>танцевать</b>	<b>целовать</b>	<b>копировать</b>
<b>Я ри-сую</b>	<b>я тан-цую</b>	<b>я це-лую</b>	<b>я копи-рую</b>
<b>Ты ри-суешь</b>	<b>ты тан-цуешь</b>	<b>ты це-луешь</b>	<b>ты копи-руешь</b>
<b>Он (она) ри-сует</b>	<b>он(она) тан-цует</b>	<b>он (она) це-лует</b>	<b>он (она) копи-рует</b>

Still such verbs can be divided into classes as in Table 3.

Just to make it clear, the teacher needs to give more examples to the above. And explain that in Russian there are regular and irregular verbs like in English (this is due to the fact that today everyone knows about the easy-to-remember rules of the English verb). By giving such a name, the teacher will greatly improve the process of learning the Russian language. Because when teaching speaking, purely grammatical terminologies such as “multi-conjugated verbs”, “especially conjugated verbs”, “I type of conjugation”, “II type of conjugation” and a number of others are not needed.

First, it is impossible to study them in a short time.

Secondly, students have a lack of confidence in their strength.

Third, a native speaker of another language will quickly become confused and lose interest in learning the language.)

Instead of such complex grammatical phenomena, the teacher should draw the students' attention to the same conjugation of similar verbs. For instance,

<b>Шить</b>	<b>Бить</b>	
<b>Я шью</b>	<b>Я бью</b>	
<b>Ты шьешь</b>		<b>Ты бьешь</b>
<b>Он (она) шьет</b>		<b>Он (она) бьет</b>



Table 3

<i>Писать</i>	<i>Ходить</i>	<i>Рисовать</i>	<i>Пить</i>	<i>Мыть</i>	<i>Жить</i>
<i>Искать</i>	<i>Водить</i>	<i>Копировать</i>	<i>Шить</i>	<i>Петь</i>	
	<i>Возить</i>	<i>Танцевать</i>	<i>Бить</i>		
		<i>целовать</i>	<i>Лить</i>		

Thus, it is much easier for a native speaker of another language to learn what they see and hear than specific grammatical rules.

In the next lesson, the teacher gives conjugation of plural verbs in 1, 2 and 3 persons

according to Table 1 and adds verbs in *-ти* to the dictionary. And after that, for the appearance of a deeper interest in the rapid learning of the language among students, the teacher gives the table below.

Table 4

	-га	-ни	билан	хақида	-да,	учун	Олдига, яқинига
	Себе	Себя	С собой	О себе	У себя	Для себя	К себе
Я	Мне	Меня	Со мной	Обо мне	У меня	Для меня	Ко мне
Ты	Тебе	Тебя	С тобой	О тебе	У тебя	Для тебя	К тебе
Он(она)	Ему(ей)	Его(её)	С ним (ней)	О нём (ней)	У него (неё)	Для него (неё)	К нему (ней)
Мы	Нам	Нас	С нами	О нас	У нас	Для нас	К нам
Вы	Вам	Вас	С вами	О вас	У вас	Для вас	К вам
Они	Им	Их	С ними	О них	У них	Для них	К ним

This is due to the fact that the speakers of the Turkic languages and other languages in general also find it much more difficult when declining personal pronouns in cases. Because the declension of pronouns in cases overlaps. Therefore, the above table gives specific results, as it is easy to remember. And then the placement of such active offers begins as:

*Я читаю тебе*

*Ты говоришь мне*

*Он любит меня*

*Мы любим их*

*Они видели у вас и т.д.*

Starting from the second lesson, the teacher gives ten test assignments, and from the third he adds small exercises.

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## **PEDAGOGICAL THOUGHT IN THE STORIES OF CH. AITMATOV**

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In the work of the world famous writer Ch. Aitmatov there is one thought, which, passing through many of his artistic and publicistic works, forms, combined with other problems, a powerful ideological and aesthetic force, entering into an active struggle for the future of mankind. This idea is pedagogical.

Aitmatov's pedagogical thought was manifested already in his early publicistic articles, Ch. Aitmatov subjected the current school textbooks to a critical analysis.

One of the early works of the writer, entirely devoted to the problem of educating the person of the future, - the story "Teacher" (1962) - without exaggeration can be called one of the best in the entire former Soviet multinational literature. Now, after more than four decades, in new socio-political conditions, one can think and speak about this work in different ways, however, in my opinion, one thing remains unchanged - the Aitmatov hero is an example of selfless, selfless service to his ideal. Enduring cold and hunger, bullying and beatings from the beys, risking their lives, overcoming the mistrust of ordinary people, for whom, in fact, the hero risked himself, Duishen teaches children to read and write, and most importantly, awakens human consciousness in them. The teacher clearly realizes the social necessity of what he is doing, considers himself called upon to do this paramount task.

In this work, Ch. Aitmatov, for the first time in his work, also raises the problem of respect for the memory of fathers, which later will become one of the leading not only among the Kyrgyz writer: almost every Soviet writer will begin with good reason to assert that without historical memory, humanity has no the future. This problem is also an integral part of the pedagogical thought of Ch. Aitmatov. Now everyone has realized that without assimilating the precepts of the fathers, without knowing their historical roots, one cannot even think about the normal spiritual development of the young generation.

Subsequently, the writer does not devote his works specifically to the problem of teaching.

However, the theme of caring for the younger generation, deep concern about the state of affairs in this area runs through almost all of his works. This is, first of all, striking in the stories that could be called works about children for adults: "White Steamer" (1970), "Early Cranes" (1975), "Pied Dog Running by the Edge of the Sea" (1977). In the first of them, the writer poses the problem of the formation of the spiritual world of his nameless little hero, more precisely, only the beginning of this process is shown here. It depicts the collision of a barely forming light, clean, like a glass, fragile idea of the world of the Boy with a rough, ruthless, cruel world that hates everything and everyone, spiritless, embodied in the image of Orazkul.

The Boy's idea of a kind world, dreams of a white steamer are formed under the direct influence of fairy tales, especially the legends "About the Horned Mother Deer", which grandfather Momun often told his grandson.

In the article Notes about Myself (1972), the writer recalls with gratitude his grandmother, who told him a lot of fairy tales and songs: "Perhaps, without knowing it, my grandmother instilled in me a love for my native language. Native language! How much has been said about this! And the miracle of native speech is inexplicable. Only a native word, learned and comprehended in childhood, can nourish the soul with poetry, born of the experience of the people, awaken in a person the first sources of national pride, and bring aesthetic pleasure to the multidimensionality and polysemy of the language of ancestors. Childhood is not only a glorious time, childhood is the core of the future human personality. It is then that there is a feeling of one's belonging to the people around, to the surrounding nature, to a certain culture."

In his other articles and works of fiction, the writer repeatedly emphasizes that folklore is the covenants of the fathers, the spiritual support for the people, and it is in it, through millennia, that moral experience comes to us, without which human existence loses its meaning. More precisely and more specifically: in the story "The White Steamer"



through the legend "About the Horned Mother-Deer" we hear the call: all people on Earth are children of one Mother and must live in complete mutual understanding, like brothers, in harmony with nature, which is our foremother. We must love and respect her. Otherwise, if the harmony of man's attitude to nature is violated, mankind will inevitably face a global catastrophe - complete destruction.

In one of his early articles, the writer unequivocally says that educational institutions of his day, especially preschool ones, do not sufficiently cope with the tasks assigned to them in the spiritual plane. "Well, how can one woman, often young, still inexperienced herself, cope with the spiritual education of thirty or even more children in her group," the writer complained then. At home, too, children are often deprived of this opportunity. All adults work: fathers and mothers, and grandfathers and grandmothers - there is almost no one and no time to take care of the children. There are many other reasons why children are often left to their own devices, especially in urban settings. It also happens that children are deprived of the opportunity to constantly communicate with their relatives due to the unsettled life. In the story "The White Steamer", the author, as if in passing, informs the reader that Momun's daughter lives with her husband "in a big house, but in a small room, so small that there is nowhere to turn. And in the courtyard, no one knows anyone, as in the bazaar. And everyone lives like this - they will enter their room, and immediately the doors are locked. They are locked up all the time, like in a prison".

Ch. Aitmatov reminds readers of the old days, when children were brought up mainly in a family. Gray-haired grandparents, sometimes not even relatives, just neighbors, told their beloved grandchildren their wonderful fairy tales, which they also heard from their grandfathers in their time. Parents themselves directly introduced children to their work, craft, family tribal traditions. All this was done as something important in human life, ritually, for it was perfectly understood that it was necessary for the continuation of not only a kind, serene existence of their offspring, but also for the continuation of life on Earth as a whole.

Reading the works of Ch. Aitmatov, it is not difficult to grasp the idea that not only parents should take care of the transfer of spiritual values and traditions of the elders to the younger generation. Each person is personally responsible for this, and not only to his own children.

An interesting example is from the story "Early Cranes". There are seemingly insignificant details here: one of the adults, leading the teenagers to the commemoration, explains to them how to behave there; or the father visits the bazaar with his

son, and the parent draws the attention of his child not only to how to choose this or that thing and to bargain for it from the owner (this is also, of course, important for education), but also how a merchant-Uzbek even refers to "you".

Of course, spirituality is not only about etiquette. The attributes of etiquette, a purely external manifestation of morality, can be easily learned and, at the same time, internally remain an outside observer of a neighbor's grief. The main thing is to have love for the person, the people, the land that feeds you, hard work, the desire to selflessly do good, or maybe, as I think, somewhere an unconscious instinctive urge to do good. And the reader of the story "Early Cranes" is convinced that it was not so much the harsh military reality that forced Sultanmurat and his friends to take up the plow instead of the fathers who had gone to the front, and overcome the incredible everyday hardships, how much hard work, which was timely instilled in them by their elders, above all, by their parents, love for the land, endurance, the concept of honor and conscience, etc.

The problem of passing on to the younger generation the covenants of the fathers, family traditions, including those of labor, is the focus of attention in the short story "Piebald Dog Running by the Edge of the Sea." In this work, the reader is struck by a tremendous sense of responsibility for their offspring, for the future of their children, so that ancestral traditions do not intersect, which is the meaning of the entire life of the adult heroes of this work, remarkable in its strength of emotional impact on the reader. Three adults: grandfather, uncle, father, finding themselves in an almost hopeless situation during the sea hunt, undertaken by them according to the family and tribal tradition in order to initiate little Kirisk into their craft, voluntarily lose their lives in order to save the one in whom they saw their future, the meaning of its existence, for the sake of which, in fact, this hunt was undertaken. If adults had acted differently, that is, if they were cowardly, they would have begun to take care of their own lives, it would have been worthless to all that thanks to which and in the name of which they lived. And here natural questions may arise: "Will Kirisk remember those three people who are dear to him who, in the name of his one life, sacrificed their own?", "Will he be faithful to the good traditions of his ancestors?", "Will he be able if need to sacrifice your life for the sake of the future, for the sake of saving someone's life?" The answer, of course, is only yes!

Once, in a conversation with R. Gamzatov, Aitmatov said that "in childhood, an embryo of conscience, decency appears in a person, and the integrity and value of the personality depends on how



he survives and develops, what conditions will be created for him."

It must be assumed that Ch. Aitmatov by "conditions" means behavior, in other words, a living example of adult fathers. Of course, in "Pied Dog ..." the author exaggerates the colors, throws his heroes into an exceptional, extreme situation, thereby achieving a significant increase in the force of the work's impact on the reader. In real life, there are more often less dramatic, but no less instructive examples of good deeds of conscientious people in relation to children.

By the way, the writer talks about one of such life experiences in the article "The Overcoming Kindness" (1962). (This episode is also used by the writer in a work of fiction). A seventeen-year-old boy, seeing a family of evacuees at the railway station in winter - all naked, barefoot - gives his sheepskin coat to one of the children. "The boy has gone completely wild, embittered. And the short fur coat just fits him," the young man explains his act to his mother. After some time, the mother said: "I didn't say anything then. I wouldn't talk about it now either." "My stupid, hearty one," I thought, "okay, if you could dress everyone with one half-cube or feed everyone with one piece of bread ... I don't want to say about my son's generosity. Is it a big deal? The sheepskin coat will wear out, and that's not the point. Now, if this boy at the station warms his soul, if from an early age he understands with his heart that people love each other and that it is the duty of each to do good to another, then he will grow up to be a good person. After all, good does not lie on the road, you cannot pick it up by accident, a person learns good from a person. And if it comes true, then my son has done a holy deed."

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# THE EDUCATIONAL PRINCIPLE OF COMMUNICATIVENESS IN TEACHING RUSSIAN IN A FOREIGN LANGUAGE AUDIENCE

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## RESUME

*In the modern teaching methodology, the concept of communicativeness appeared as applied to the practice of studying the Russian language by foreigners. Besides, communicativeness supposes the use of the language being studied from the very initial stages of training in natural interaction purposes and functions or as close as possible to them. Teaching foreigners the Russian language, even in the absence of a Russian language environment, is understood as teaching speech, communication and expression of thought.*

*In recent years, there has appeared willingness for a deep study of the goals and motives of learning, which, in turn, has given a fundamental turn to didactics to the personality of the student, the level of his or her claims.*

*The process of mastering the language should be the understanding of living foreign language reality. It requires that language forms and structures be studied in the situations in which they are naturally used by those for whom the language is native. To understand the language an extra linguistic element is required, awareness of the real situation with which this statement relates (Mitrofanova O.D., 1985: 89).*

**KEYWORDS:** *innovative technologies, traditional teaching methods, readers' culture, educational technologies, teaching technologies*

The links between people of different nationalities expand with each year. This generates the need to master foreign languages. The Russian language conquers great popularity in the modern world, and the number of people who want to study it are growing.

The principle of active communicativeness as a leading methodological principle in the teaching of the Russian language by foreign students was formulated on the III Congress Mapryal in Warsaw (1976) in the reports M.V. Watytneva, A. Neontieva, OD Mrophanova in collaboration with

M. Bonev (Bulgaria) and M. Sotakov (Czech Republic).

The main stimulus when studying the second language is a need for observation. That is why at present, the leading tendency trend was the desire to teach second language in such a way that using the language in the process of real or educational speaking, listening, reading or writing, the student would satisfy their need for communication.

Communication is recognized as a fundamental methodical Cate-Gray. The essence and direction of its development are largely



determined by the sign concept of the language.

In the process of our study, the method of studying the advanced pedagogical experience of the CIS students of the CIS countries, as well as a number of foreign countries (Bulgaria, Czech Republic, Slovakia, Serbia, Montenegro, Poland, etc.), a laboratory method, a natural experiment, and a pedagogical experiment, method, found its application.

As a result of the study, methodological recommendations on the use of communicative technologies in the teaching of the Russian language and literature were developed and applied.

A system of application has been created in the practice of informative-communicative technologies aimed at optimizing the process of learning Russian in bilingual conditions,

Pedagogical, psychological and methodological prerequisites for the introduction of communicative technologies in the practice of teaching the Russian language as a foreign language are substantiated.

As the questions put forward by us for discussion, we propose the following provisions:

1. One of the pedagogical conditions contributing to the effective formation of the communicative competence of students is the organization of the process of formation of the communicative competence of students. It should take into account the structure of speech activity, including the speech situation, motives, goals, needs, value orientations, the image of the result, the leading and background levels of speech activity and its stages (orientation, planning, implementation and control).

This process cannot replicate the acquisition of a native language. New signs act as equivalents of already designated objects, relationships, phenomena. In other words, the natural connections between the second language and reality are complicated by artificial connections between the mother tongue and the second language. Hence, the conclusion is inevitable that mastering a second language, focused on comparing it with the native language, grossly violates the natural process of comprehending objective reality.

2. Mastering a second language is complicated by the fact that in the process of its use, the form of manifestation of thought processes, the nature of the reflection of social relations and the expression of categorical features, and the characteristics of the nomination inevitably change. Usually we go to them from the forms of the language, although it would be natural to go from them to the linguistic forms.

3. The communicative technique should rely on all connections in a balanced way, but, according to experts and scientists, it is necessary to draw special attention in a timely manner to the connections between the language being studied and reality, and emphasize that mastering new linguistic signs is possible without the mediation of the native language.

A personality-oriented or individual approach in the upbringing of students is a purposeful system of pedagogical actions and relationships that maximally takes into account the age and socio-psychological characteristics of each student in order to comprehensive and harmonious development of his personality.

In the pedagogy of higher education, unfortunately, there is still a directive style of upbringing students, which often leads to formalism and mistakes due to ignorance and ignorance of the individual characteristics of students.

Studying the personality of students is important, first of all, from the standpoint of real life. It is known that the individual characteristics of people have a deep and varied impact on social groups, and thus on society as a whole, the level and nature of the organization, the productivity of collective activities, interpersonal relations.

Traditional "inattention" to individuality and gives rise to defects in "human formation", contradictions in the behavior and consciousness of people, negatively affects interpersonal communication.

The second reason is of a psychological nature. At the psychological level, reactions, attitudes, assessments, people's attitudes to the same fact, phenomenon, event are always varied. These differences in attitudes and attitudes of people affect people's behavior and personality manifestations. Since the true object of pedagogical work is precisely the relationship of a person, their knowledge and consideration are necessary.

The third reason is the patterns of the upbringing process. In upbringing, there is no direct dependence of the results of upbringing on upbringing influences. The breadth and dynamism of the student's connections and relations with the surrounding subject and social environment should be a constant object of pedagogical knowledge and correction.

The individual characteristics of students should be studied jointly by all teachers in contact with all students. Such a kind of pedagogical "consultation" will provide complete, reliable information and unity of action for all teachers.

The general program for all teachers is the



principle of personality study: purposefulness, comprehensiveness, dynamism, systematicity and consistency, the study of personality in activity and in a team, educating the character of personality study.

The world exists in reality. Language is a reflection and consolidation in human consciousness of different relationships between objects and phenomena of the real world. Moreover, each language has its own characteristics. Languages, adequately and fully reflecting one and the same objective reality, distinguish not the same type of signs in it, use different "internal forms", different material means. Hence the difficulty in mastering a second language, since the mastery of new linguistic signs must begin with the "de-objectification" of another social-historical or national experience that is accumulated in them.

In the practice of teaching a second language, an educational principle of active communication has developed, which is aimed at establishing direct associative links, at including students in the "linguistic picture of the world", which is characteristic of native speakers of the target language, at the possible elimination of "mediations" with the native language, at searching for "collapsing »Interlanguage code transitions in the internal speech of students.

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## MAIN FACTORS OF ECONOMIC DEVELOPMENT OF KASHKADARYA REGION

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### ANNOTATION

*Today, the economy of our republic is undergoing profound and large-scale structural changes. The republic's regions used to supply mainly raw materials, but now they produce competitive products and export them abroad. Kashkadarya region also makes a worthy contribution to the implementation of this work. Kashkadarya region plays a special role in the economic development of the republic. This article provides a comparative analysis of the role and importance of the region in the Republic over the years.*

**KEY WORDS:** *Uzbekistan, Kashkadarya, republic, region, Mubarek. Guzar, Kitab, Shakhrisabz, Shurtan, economy, agriculture, industry, cotton, grain, oil, gas, agriculture, animal husbandry.*

One of the main factors in the socio-economic development of the Republic of Uzbekistan, achieving sustainable economic growth, increasing incomes, improving the living standards of our people is to further liberalize the country's economy, especially to deepen structural changes.

Rational regional allocation of the country's productive forces is one of the priorities of regional policy. Therefore, the effective use of the natural and economic potential of the regions is one of the important conditions for ensuring the sustainable development of the country's economy, improving the living standards of the population. As the President of the Republic of Uzbekistan Shavkat Mirziyoyev noted, "political independence cannot be ensured without achieving economic independence." That is why the government of the republic has achieved the independence of grain and fuel energy since the early days of independence.

Indeed, today the economy of our republic is undergoing profound and large-scale structural changes. The regions of the republic used to supply mainly raw materials, but now they produce competitive products and export them abroad. Kashkadarya region also makes a worthy contribution to the implementation of this work.

Kashkadarya region plays a special role in the economic development of the republic. The region supplies 70% of the country's natural gas, about 78% of oil, 80% of gas condensate, 100% of

sulfur, 91.3% of salt and 11.1% of cement. Kashkadarya is the largest supplier of grain and cotton in the country. The region accounts for 10.2% of Uzbekistan's gross agricultural output, including more than 14% of cotton, more than 13% of grain and 19% of astrakhan leather.

There are great opportunities in the region for the development of these areas. In particular, given the climatic conditions of the region, the large amount of heat and the long duration of the growing season allow the cultivation of cereals (especially in dry lands), cotton and horticultural products in this area. The richness of fuel and mineral resources in the region is the basis for the development of gas, oil, mining and construction materials industries. In addition, the rapid growth of the region's population will provide sufficient labor resources in the region.

Kashkadarya region has a large land resource. Agricultural lands in the region in 1990 amounted to 2 million 534 thousand hectares, in 1995 - 2 million 522.7 thousand hectares, in 2000 - 2 million 194 thousand hectares, and in 2015 - 2 million 856.8 thousand hectares. 76.8% of the total area. The area under agricultural crops in 1990 was 616 thousand hectares, in 1995 - 643.1 thousand hectares, in 2000 - 698.3 thousand hectares, and in 2015 - 679.2 thousand hectares.

The agro-sector of the regional economy specializes mainly in the cultivation of cotton, grain and livestock products. From the point of view of



regional specialization, cotton growing, horticulture and grain growing are developed in the districts of the upper zone, and cotton growing in the lower zone, ie in the Karshi steppe. Livestock, especially sheep and goats, is more common in desert and foothill areas. Around the regional center and Shakhrisabz, the suburbs are engaged in agriculture, growing vegetables and potatoes, vegetables.

The main branch of agriculture is cotton growing. Cotton was planted on 220,000 hectares in 1990, 150,000 hectares in 2000, 173,000 hectares in 2008, 164.9 thousand hectares in 2015 and 139.8 hectares in 2018. It can be seen that the area under cotton has been declining from year to year.

In 1990, 500,000 tons of cotton were grown, in 1997, 420,000 tons, in 2013, 424,000 tons of cotton, and in 2020, 400,000 tons of cotton. For comparison, in 2020 it is planned to grow 331 thousand tons of cotton in Bukhara region, 250 thousand tons in Fergana region, 215 thousand tons in Samarkand region, 99 thousand tons in Navoi region, 244 800 thousand tons in Surkhondarya region.

In recent years, the gross production of cotton has been growing on the basis of intensive farming. As a result of reducing the area under cotton in the region, brigades specializing in fruit and vegetable growing are being formed. For example, in the period from 2010 to 2015, the area of cotton was reduced by 3,200 hectares and the cultivation of potatoes, vegetables and melons was launched.

Cereals include wheat, rice, corn, barley, oats, millet, oats, and rye. In Kashkadarya region, the largest grain crops are wheat, barley and corn. In 1990, 288.8 thousand tons of grain, in 1995 500 thousand tons of grain, in 2002 684 thousand tons of grain, in 2007 884 thousand tons of grain, in 2019 964.3 thousand tons of grain were grown. It should be noted that the increase in grain yields in the region from year to year was primarily due to the reduction of cotton acreage, improvement of land reclamation and planting of new high-yielding varieties. Thus, Kashkadarya region has made a worthy contribution to the independence of the republic. Livestock is the post-agricultural sector of the province's agriculture, providing the population with food products such as milk, meat, eggs, fish, and industry with wool, black lake leather, silk, and other raw materials. Further development of animal husbandry in the region is one of the first tasks facing agriculture. To do this, it is necessary to build a strong fodder base for livestock and the proper use of fodder, increase the number of all types of livestock, as well as poultry, increase productivity. In 2010, the region supplied 8.2% of meat, 8.6% of milk, 16% of wool and 19% of astrakhan skins grown in Uzbekistan.

Or, in 1999, 97.2 thousand tons of meat, 338.7 tons of milk, 3163 tons of wool, 95.1 thousand pieces of astrakhan skin, 94.5 million eggs were grown in the region, by 2005 the region produced 119.1 thousand tons of meat, 444 , 7 thousand tons of milk, 3962 tons of wool, 103.6 thousand pieces of astrakhan skin, 124.5 million eggs, in 2010 in the region 178731 tons of meat, 657162 tons of milk, 192627 thousand eggs, in 2015 in the region 248008 tons meat, 952542 tons of milk, 7431 tons of wool, 193386 pieces of astrakhan skin, 366 million 695 thousand eggs, by 2019 294716 tons of meat, 1148068 tons of milk, 7551 tons of wool, 219436 thousand pieces of astrakhan skin, 549760 eggs were grown.

It can be seen that the production of agricultural products has increased as the population has grown, that is, the volume of agricultural production has increased due to the needs of the population.

In 1996, there were 572,000 head of cattle in the region, in 2000 this number increased to 22,200, the number of sheep and goats increased from 1,829,000 to 1,961,000, and in 2006 there were 746.4 thousand head of cattle. , the number of sheep and goats reached 2311.8 thousand, in 2010 there were 972.1 thousand head of cattle, 2966 thousand head of sheep and goats, in 2017 the total number of cattle was 1479.3 thousand head, sheep and goats 4412.6 thousand heads, in 2020 1620.5 thousand heads of cattle, sheep and goats amounted to 4726.9 thousand heads.

Kashkadarya has great potential for livestock development. With this in mind, it is necessary to open the way for the farming movement in the livestock sector, to ensure the implementation of decisions to strengthen the fodder base.

The leading industries of Kashkadarya region are: natural gas and oil extraction, gas processing, cotton ginning, oil extraction, production of construction materials, sewing and food production.

Kashkadarya region accounts for 88% of natural gas and 92% of oil produced in the country. Tollimarjon GRES, Mubarekgaz, Shortangaz, Kokdumalak oil field and other facilities show the great contribution of Kashkadarya region to the economic development of our country.

Karshi and Shakhrisabz nodes play an important role in the regional organization of industry. In addition, Mubarek (IEM, gas-chemical complex), Kasan (oil extract, cotton ginning, brick plant), Shurtan (oil and gas-chemical), Tollimarjon (TPP), Kokdumalak (oil), Chirakchi (cannery) and the importance of other industries is also growing. There are textile enterprises in Karshi and Kamashi, cotton-spinning in Shakhrisabz (JV "Oqsaroy -



weaving”, silkworm breeding), ginning plants in most district centers.

Modernization and diversification of leading industries, the introduction of modern technologies for processing raw materials and semi-finished products, targeted support of highly competitive industries in the world market, contributed to increasing the share of the processing industry in the structure of production.

In 1995, the volume of industrial production increased by 1.5 times compared to 1990, since 2000 (compared to 1990) the growth was 1.7 times, in 2005 - 2.6 times, in 2010 - 4.2 times. and in 2016, it increased 5.1 times.

In 2008, industrial production accounted for 33.0% of GDP, while in 2010 it was 40.7% (2013 - 37.4%). The share of agriculture here is lower than in some other regions - 19.5%, although in Surkhandarya, Syrdarya, Jizzakh and Samarkand regions this figure is almost twice as high. At the present time the machinery here is underdeveloped; much attention is paid to the chemical and power industries. The Shurtangaz complex, the Dehkanabad potassium plant, and the Talimarjan thermal power plant, which were put into operation in the first place, are proof of our opinion. The Mubarek Thermal Power Plant also plays an important role in the regional energy base.

The internal structure of the gross regional product of Kashkadarya region also justifies the transition of its economy to an increasingly industrial-agrarian direction. Gas condensate in the region is produced by Mubarek oil and gas fields, Mubarek gas processing plant, Shurtan oil and gas subsidiary, Shurtangaz chemical complex and Gissar oil and gas joint ventures. These enterprises use oil and natural gas fields. Among them are the Mubarek Oil and Gas Departments for Gas Condensate and the Mubarek Oil and Gas Fields for Shurtan Oil and Gas, Oil and Natural Gas Production. About half of the liquefied gas is supplied by the Shurtangaz chemical complex, followed by the Shurtan oil and gas subsidiary.

In short, the main sectors of the economy of Kashkadarya region are natural gas, and oil production, gas processing, cotton ginning, oil extraction, production of construction materials, and the share of the processing industry has been growing in recent years. As an example, in 2010, the share of the processing industry in total industrial output was 30.7%, and by 2016 it had grown to 53.9%. In agriculture, the area under cotton is declining, and the area under grain and fruit and vegetable crops is increasing year by year. For example, in the upper districts (Kitab, Shahrisabz, Yakkabog) specialize in horticulture and vegetable growing.

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# USE OF AUTOMATION OF THE TECHNOLOGICAL PROCESS FOR MANUFACTURING STRENGTH SENSITIVE FILMS BASED ON A SEMICONDUCTOR JOINT $(\text{BiSb})_{2-x}\text{Te}_{3-x}$

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## ИСПОЛЬЗОВАНИЕ АВТОМАТИЗАЦИИ ТЕХНОЛОГИЧЕСКОГО ПРОЦЕССА ИЗГОТОВЛЕНИЯ ТЕНЗОЧУВСТВИТЕЛЬНЫХ ПЛЁНОК НА ОСНОВЕ ПОЛУПРОВОДНИКОВОГО СОЕДИНЕНИЯ

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**Аннотация:** В работе исследуется влияние циклической деформации на сопротивление пленочных образцов, а также описан способ автоматизации технологического процесса получения тензочувствительных пленок на основе теллуридов висмута-сурьмы, содержащих наногранулы.

**Ключевые слова:** полупроводниковые пленочные элементы, коэффициент тензочувствительности, датчики накопленной усталостной повреждаемости, метод термовакuumного напыления, вакуумная установка,

Известно, что в современной технике исследования многокомпонентных соединений в конденсированном состоянии позволяют расширить возможности их практического применения по сравнению с элементарными и бинарными конденсатами. Аморфные плёнки сложных халькогенидных соединений при вариации физико-химических свойств обладают большими возможностями. Однако, исследования тонкоплёночных конденсатов таких соединений не получили широкого распространения из-за того, что относительно небольшое число сложных халькогенидных соединений испаряются без изменения состава. Отклонение от исходного соотношения составляющих

компонентов, обычно, приводит к изменению необходимых характеристик образцов. Кроме того для сложных многокомпонентных систем характерны физико-химические процессы старения, к которым относятся всевозможные фазовые превращения приводящие к окислению, кристаллизации аморфных фаз, изменение стехиометрического соотношения компонентов со временем и др.

Исследование свойств плёночных тензочувствительных образцов, полученных из твёрдого раствора  $\text{Bi}_2\text{Te}_3 - \text{Sb}_2\text{Te}_3$ , используемого в термоэлектрических преобразователях, показало, что при некоторой оптимальной технологии, коэффициент тензочувствительности



может достигать  $6,2 \cdot 10^4$  единиц. Поэтому объектом нашего исследования было выбрано многокомпонентное соединение на основе теллуридов висмута и сурьмы.

Исследования влияния деформации на полупроводниковые пленочные элементы, полученные термическим испарением в вакууме, было отмечено значительное изменение сопротивления. Для оценки степени влияния деформации ( $\epsilon$ ) на сопротивление ( $R$ ) пленочных элементов используется коэффициент тензочувствительности –  $K$ :  $K = \Delta R / [\epsilon \cdot R]$ , где  $\Delta R = R(\epsilon) - R(0)$ ; а  $R(\epsilon)$  – сопротивление пленочного элемента, при наложенной относительной деформации  $\epsilon$ . Было замечено, что этот коэффициент зависит от техно-логии получения и последующей термической обработки пленочных образцов, может существенно отличаться от эласторезистивных констант монолитного материала или монокристалла.

Например, по данным работ [1,2], эласторезистивные константы монокристаллов PbS в зависимости от концентрации носителей и типа проводимости могут иметь значение  $30 \div 180$  для PbS n-типа проводимости и  $65 \div 250$  для PbS p-типа проводимости. В поликристаллических пленочных образцах  $K$  может достигать  $3000 \div 9000$ . Исследование свойств пленочных тензочувствительных образцов, полученных из твердого раствора  $\text{Bi}_2\text{Te}_3 - \text{Sb}_2\text{Te}_3$ , используемого в термоэлектрических преобразователях, показало, что при некоторой оптимальной технологии, коэффициент тензочувствительности может достигать  $6,2 \cdot 10^4$  единиц.

Сравнение коэффициента тензочувствительности монолитных и пленочных элементов из этого материала показывает, что пленочные элементы могут иметь коэффициент тензочувствительности на четыре, пять порядков больше, чем монолитные, допускают на один, два порядка большую относительную деформацию, выдерживают более  $10^6$  циклов деформации  $\epsilon = 10^{-3}$  относительных единиц и не изменяют своих свойств при длительном хранении [3].

Известно, что наиболее высоким КТЧ обладают пленочные тензорезисторы на основе тройных полупроводниковых соединений (Bi, Sb)Te. Тензочувствительные пленки теллуридов висмута-сурьмы способны накапливать информацию в виде изменения сопротивления, по способам приложения и величине нагрузок, которые они воспринимают. Это позволяет использовать такие пленки для создания датчиков-преобразователей механических величин в электрические сигналы,

в частности использовать их для получения чувствительного элемента датчика накопленной усталостной повреждаемости (ДНУП).

В данной работе описан способ автоматизации технологического процесса изготовления ДНУП на основе полупроводникового соединения  $(\text{BiSb})_{2-x}\text{Te}_{3-x}$ . Контроль параметров процесса напыления и управления отдельными узлами установки осуществляется с помощью программы, заложенной в компьютер типа IBM/PC по технологической карте, составленной заранее.

Для получения нанокристаллических образцов из полупроводникового соединения теллуридов висмута и сурьмы методом термовакuumного напыления, необходимо специальное технологическое оборудование - модернизированная однопостовая типовая вакуумная установка УВН-73П. Она является базовым вакуумным оборудованием, позволяющим при напылении нанокристаллических пленок контролировать сопротивление образцов по свидетелю.

С помощью вакуумной установки со штатным оборудованием, снабженной дополнительной системой для автоматического регулирования температуры по заданной программе мы получали тензочувствительные пленки теллуридов висмута-сурьмы, содержащих наногранулы с воспроизводимыми характеристиками [4-6].

В качестве исходных материалов при получении соединения  $\text{Bi}_2\text{Te}_3$ ,  $\text{Sb}_2\text{Te}_3$  использовался гетерогенный материал со следующим процентным содержанием: 40 %  $\text{Bi}_2\text{Te}_3$  + 50 %  $\text{Sb}_2\text{Te}_3$  + 10 % Bi. В испаритель закладывают навеску весом ~ 6 грамм. Ранее полученные подложки, с напыленными контактными площадками закладывают вместе с масками в подложкодержатели, которые помещают в вакуумную установку, после чего устанавливают основной и вспомогательный свидетели. При получении нанокристаллических тензопленок  $\text{Bi}_x\text{Sb}_{2-x}\text{Te}_3$  расстояние между испарителем и подложкой варьировалась в пределах  $80 \div 150$  мм.

После завершения подготовительного периода камера герметически закрывается и в подколпачном объеме устанавливается высокий вакуум с давлением  $1,33 \cdot 10^{-2} \div 1,33 \cdot 10^{-3}$  Па, так как наилучшие деформационные свойства независимо от других параметров технологии обеспечивают при остаточном давлении в вакуумной камере в пределах  $6,7 \cdot 10^{-2} \div 6,7 \cdot 10^{-4}$  Па.

Следующий этапом является ионная очистка, разогрев и поддержание температуры подложек  $343,15 \div 348,15$  К. Испарение части навески исходного материала проводится при закрытой заслонке при температуре испарителя  $623 \div 643$  К, при этом сопротивление вспомогательного свидетеля должно достигнуть величины  $\sim 7000$  Ом за время 27 мин.

Испарение исходного материала при открытой заслонке проводится при температуре испарителя  $643 \div 1073$  К. При завершении испарения сопротивление свидетеля должно быть  $\sim 150$  Ом. Время испарения 7-8 мин. После остывания подложек производится напуск воздуха.

Контроль параметров процесса напыления и управление отдельными узлами установки осуществляется программно компьютером типа IBM/PC по технологической карте составленной заранее. На рис.1 приведен снимок работы программы. Прежде чем начать технологический процесс, необходимо ввести данные для Протокола работы. К ним относятся значения, величина температуры подложек в данный момент времени сопротивление свидетелей. Во время работы Система начнет обрабатывать, заданные величины и отображать соответствующие им измеренные значения. Можно редактировать данные, заданные в Протоколе и во время технологического процесса. Во время процесса программа запоминает все измеренные величины

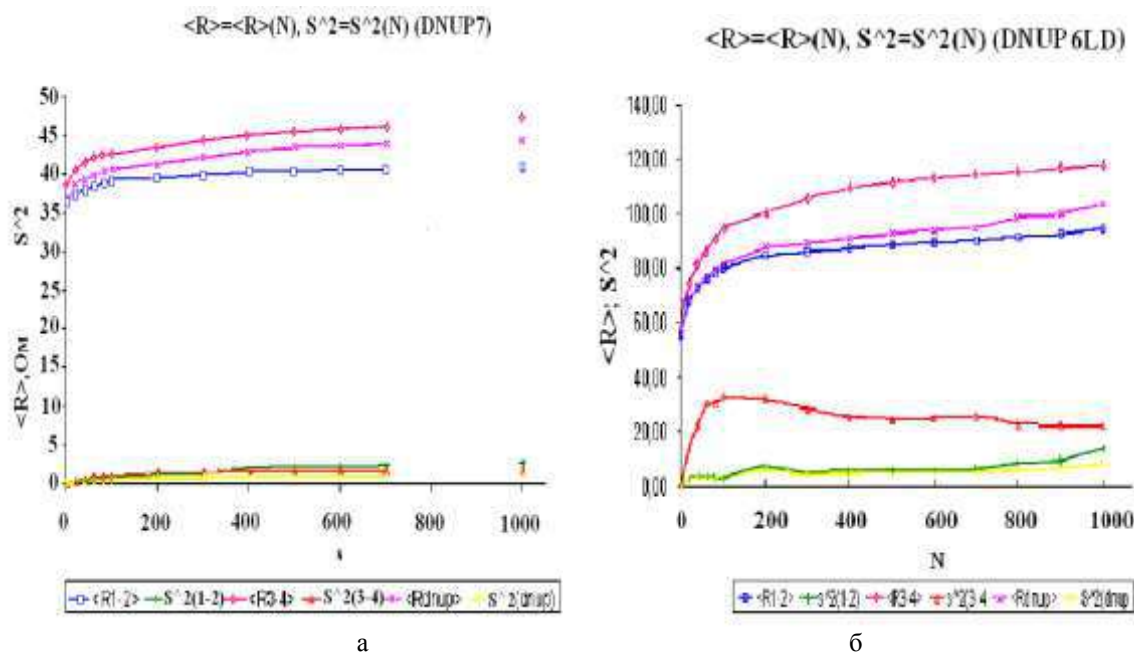


**Рис.1. Расположение элементов управления в окне управляющей программы**

Набранный Протокол процесса можно сохранить в файле на диске. При этом автоматически сохраняются все данные в процессе работы. Автоматизация процесса получения тензочувствительных плёнок теллуридов висмута-сурьмы позволило резко сократить разброс сопротивлений получаемых полупроводниковых тензопреобразователей,

который определялся по их средним значениям и среднеквадратичным отклонениям.

На рис.2.1.a и рис.2.1.б приведены зависимости среднего значения сопротивления плёнок и их среднеквадратичного отклонения от числа циклов наложенной деформации по партиям (DNUP7) и (DNUP 6LD).



**Рис.2.** Зависимость среднего значения сопротивления плёнок, и их среднеквадратичного отклонения от числа циклов наложенной деформации по партиям: а – партия (DNUP7) и б – партия (DNUP 6LD)

Из сравнения приведенных на этих рисунках данных можно отметить, что партия (DNUP7) имеет наименьший разброс сопротивлений, о чём свидетельствуют и значения среднеквадратичного отклонения сопротивлений. Полученные данные могут быть использованы как один из критериев выбраковки плёнок из полученной технологической партии.

Выходные данные, установленных чувствительных элементов, носят статистический характер и должны быть определены для всей серии, при этом, диапазон разброса должен быть как можно уже. Поэтому необходимо использовать высокий уровень автоматизации как для технологического процесса изготовления ЧЭ, так и для процесса калибровки полученных тензоплёнок.

Таким образом, с помощью использования эффектов самоорганизации наноструктур и автоматизации технологического процесса получения нанокристаллических полупроводниковых плёнок, а также автоматизации процесса их отбраковки можно обеспечить ~10 процентную воспроизводимость свойств чувствительных элементов.

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## **POLITICAL AND LEGAL FRAMEWORK FOR PROTECTING NATIONAL INTERESTS IN UZBEKISTAN BASED ON INTERNATIONAL PRINCIPLES**

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### **ANNOTATION**

*This article describes the political and legal framework for the protection of national interests in Uzbekistan based on international principles, analyzed the main priorities of the policy of harmonization of national and universal interests.*

**KEYWORDS:** *democratic state, civil society, globalization, global security, sustainable development, national legislation, national interests, universal interests*

## **ПОЛИТИЧЕСКИ-ПРАВОВЫЕ ОСНОВЫ ЗАЩИТЫ НАЦИОНАЛЬНЫХ ИНТЕРЕСОВ В УЗБЕКИСТАНЕ НА ОСНОВЕ МЕЖДУНАРОДНЫХ ПРИНЦИПОВ**

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### **Аннотация**

*В этой статье описываются политико-правовые основы защиты национальных интересов в Узбекистане на основе международных принципов, проанализированы основные приоритеты политики гармонизации национальных и общечеловеческих интересов.*

**Ключевые слова:** *демократическое государство, гражданское общество, глобализация, глобальная безопасность, устойчивое развитие, национальное законодательство, национальные интересы, универсальные интересы.*

Во второй половине XX века, особенно в начале двадцать первого века, национальные интересы: как по размаху, так и по направлению, по содержанию и сущности, это показывает

значительные качественные изменения как в необходимости, так и в их способности адаптироваться к общему благу. Иными словами, текущий период характеризуется вступлением в



новый исторический этап гармонизации интересов “личность-нация-государство-общество” на международном уровне, интенсификацией происходящих процессов интеграции, интернационализации и глобализации.

Каждый субъект международного сообщества состоит из государств с различными национальными интересами, имеющими свою историю, правовые традиции и культурные ценности. Поэтому, с одной стороны, создание абсолютно совершенных и универсальных стандартов прав человека и внедрение их в жизнь всех наций и политику государств - очень сложная задача на практике. С другой стороны, активизация процессов интеграции и глобализации международных отношений сегодня требует установления относительно стабильных и универсальных международных стандартов, которые служат согласованию интересов в области глобального гуманитарного права.

Следовательно, необходимость быстрой реформы социально-экономической жизни в Узбекистане для достижения устойчивого развития после обретения независимости, на уровне государственной политики, была поставлена в повестку дня как неотложная задача. В результате в стране приняты и реализованы масштабные программы, направленные на коренное реформирование и совершенствование законодательства и всех сфер общественной жизни.

Конституция резюмирует правила защиты прав и интересов человека.

В частности, в статье 2 нашей энциклопедии говорится: “Государство выражает волю народа и служит его интересам. Государственные органы и должностные лица подотчетны обществу и гражданам”[1]. Исходя из этого, Президент Республики Узбекистан Шавкат Мирзиёев.

Выступая на церемонии, посвященной 24-летию принятия Конституции Республики Узбекистан, он сказал: “Сегодня главная цель нашей жизни, воплощенная в нашей Конституции, - обеспечить полную защиту интересов человека. Чтобы обеспечить интересы людей, прежде всего, общаться с людьми, с людьми, важно знать их заботы, стремления, проблемы и потребности”[2].

Основная цель политики Республики Узбекистан по согласованию национальных и общечеловеческих интересов - обеспечение безопасной среды для жизни человека, необходимой для будущего глобальной

цивилизации, поддержание устойчивого развития. Однако по объективным и субъективным причинам в Узбекистане трудно искоренить стереотипы, основанные на социальных, экономических, политических и идеологических интересах тоталитарного режима, сформировавшегося в советское время.

Выбранная модель национального развития Республики Узбекистан подтверждена опытом, накопленным за годы независимости, совместимостью национальных интересов с общечеловеческими интересами, постепенным, эволюционным переходом к рыночной экономике.

В частности, принцип, установленный Первым Президентом Узбекистана Исламом Каримовым: “Не строить нового - не разрушать старую” основан на концепции национальной безопасности - сохранения независимости, является важным условием защиты интересов человека и обеспечения устойчивости национального развития.

Однако интересы меняются в зависимости от потребностей и требований исторического периода. Другими словами, с одной стороны, динамическое изменение, обновление и обогащение потребностей и требований периода зависит от развития интересов, с другой стороны, развитие интересов - важный фактор, определяющий направление, уровень и характер развития общества. Сегодняшние интересы могут устареть или отвергнуты завтра, то есть абстрактные интересы, отделенные от социальной реальности, которые не имеют реальной основы, не дают ожидаемого результата.

Примирение национальных и общечеловеческих интересов, закрепленных в Конституциях Республики Узбекистан, “Национальная безопасность» и “Дальнейшее углубление демократических реформ и развитие гражданского общества в стране» и “Стратегии действий” по развитию Узбекистан: Учитывая тот факт, что она возникает из жизненно важных социальных потребностей личности, общества и государства, необходимо уделять приоритетное внимание следующим задачам, а именно:

создание оптимальной социальной, экономической, политической оптимальной среды, демократического и правового пространства, необходимого для деятельности личности по гармонизации национальных и общечеловеческих интересов;

формирование физического и гармонично развитого поколения при полной поддержке гражданских институтов, отвечающих



за гармонизацию национальных и общечеловеческих интересов общества;

дальнейшее усиление роли главного реформатора в стабилизации социального, социально-экономического развития государства и гармонизации национальных и общечеловеческих интересов;

использовать возможности гармонизации национальных и общечеловеческих интересов в политике интеграции и международного сотрудничества Узбекистана в системе региональной и глобальной безопасности;

использовать опыт государственных организаций, институтов гражданского общества и народной дипломатии, ответственных за гармонизацию национальных и общечеловеческих интересов;

творческое обобщение и практическое применение достижений стран мира в области повышения роли толерантности в гармонизации национальных и общечеловеческих интересов;

Принципы глобальной безопасности, основанные на сочетании национальных и общечеловеческих интересов, являются важным критерием при определении уровня развития отдельных государств и мирового сообщества (а также цивилизаций). Таким образом, в процессе согласования национальных и общечеловеческих интересов:

рационально использовать возможности согласования национальных и общечеловеческих интересов разных государств и сообществ в решении глобальных проблем:

определить реальность способности нынешнего и будущих поколений удовлетворять основные жизненные потребности, оценить потенциал «человеческого капитала» и общества:

определить уровень функциональной интеграции форм общественного сознания и типов культуры, определить эффективность образовательных учреждений и педагогических технологий;

разработать организационный план действий по прогнозированию, предупреждению и ликвидации последствий чрезвычайных ситуаций;

Применение требований и норм в гармонизации национальных и общечеловеческих интересов способствует развитию международного сотрудничества для обеспечения глобальной безопасности.

Основная цель национальной политики республики - гармонизация национальных и общечеловеческих интересов, как условие обеспечения глобальной безопасности. В

процессе достижения этой цели наше государство:

международное геополитическое положение, ментальные особенности перехода к рыночной экономике - исторические традиции, национальные ценности, внутренняя и внешняя политика, обеспечивающая приоритет национальных интересов.

В ведущих странах мира накоплен достаточный опыт в политике согласования национальных и общечеловеческих интересов, в использовании экономических инструментов.

Основная цель использования экономических инструментов и механизмов в этой сфере - выявление «пересечения» национальных и общечеловеческих интересов в социальной, политической, культурной, идеологической сферах, обеспечение эффективного и целевого использования результатов их интеграции.

Согласовывая содержание политики гармонизации национальных и общечеловеческих интересов в Узбекистане с пятью принципами «узбекской модели», заложенной Первым Президентом Узбекистана Исламом Каримовым и реализованной при переходе к рыночным отношениям, определяет мотив, движущие механизмы, результаты, характер процесса и указывает его направления.

В частности, приоритет экономики над политикой, основная реформа государства, обеспечение верховенства закона в обществе, сыграл важную роль в формировании и совершенствовании государственной политики в области сильной социальной политики и постепенного перехода к рыночным отношениям, гармонизации национальных и общечеловеческих интересов.

На основе экономических отношений не только физических или юридических лиц, но и реализации возможностей для гармонизации и устойчивого развития различных элементов системы «человек-государство-общество». В частности, альтернативные отношения собственности, сложившиеся при переходе к рыночной экономике, новые формы организации процесса труда и производства также вызывают изменения в отношении людей к своим интересам.

Экономические интересы предпринимателей, фермеров и других субъектов хозяйствования, составляющих социальную структуру общества, остаются важным фактором в развитии чувства патриотизма - деятельности в соответствии с политикой согласования интересов государства и общества. нация с



общечеловеческими интересами. Потому что, с одной стороны, удовлетворение государством основных материальных и духовных потребностей своих граждан, защита их прав, свобод и интересов укрепляет доверие к нему.

С другой стороны, как сказал Президент Республики Узбекистан Шавкат Мирзиёев: «Если народ будет богат, государство будет богатым и сильным»[3]. В связи с этим полномочия, данные Президенту статьей 93 Конституции Узбекистана по удовлетворению потребностей граждан, если мы посмотрим на это в контексте гарантии защиты их прав, свобод и интересов, то важность и направленность этой миссии становятся конкретными.

Сочетание и взаимодействие национальных и общечеловеческих интересов народов мира - фактор, создающий широкие возможности для решения глобальных проблем и требующий подхода к ним на уровне государственной политики. Страны с полиэтничным составом мира определили разные пути развития. Кроме того, Узбекистан определил путь развития, избранный им путь уникален и неповторим. Его уникальность отражается в его богатой истории, красивой природе, высоком духовном наследии и гармоничном сосуществовании многих наций и народов на этой земле в качестве членов одной семьи. Такая солидарность, согласие, дружба и сотрудничество имеют глубокие исторические корни и основы для гармонизации национальных и общечеловеческих интересов.

С первых лет нашей независимости Первый Президент Узбекистана Ислам Каримов проявил личную инициативу в практической работе в этом направлении. В частности, по предложению Ислама Каримова была выдвинута идея «Туркестан - наш общий дом»[4]. Поэтому в нашей стране представителям всех национальностей предоставлены всесторонние возможности для совместной работы в качестве партнера вокруг этой великой и общей идеи.

С момента обретения Республикой Узбекистан независимости обычаи и отношения людей изменились к лучшему, а межнациональные отношения, межрелигиозная толерантность и свобода совести гарантированы законом. По последним данным, сегодня в нашей стране проживают и работают 136 национальностей, этносов, народов и этносов. У каждого из них есть свои национальные культурные традиции, обычаи, язык, религия, конституционно-правовое равенство, которое закреплено в Конституции нашей страны.

Наше национальное законодательство устанавливает ряд важных принципов, которые влияют на национальную жизнь, национальные чувства граждан, а именно: во-первых, укрепляется равенство граждан перед законом независимо от их национальности; во-вторых, подчеркивается, что граждане имеют одинаковые права и свободы независимо от их религиозных убеждений. Учитывая, что религиозные ценности являются неотъемлемой частью духовности нации, практическое значение этого правила становится еще яснее; в-третьих, расовое, половое равенство и политическая свобода граждан. В целом следует отметить, что в нашей истории, в нашем национальном сознании и образе жизни не наблюдалось расизма, бесчеловечной идеологии и практики.

Однако не следует забывать, что в некоторых регионах некоторые группы, вооруженные агрессивными националистическими идеями, пытаются использовать взгляды религиозного фанатизма и расизма в своих целях. Потому что опыт настоящего времени показывает, что они организованно выходят в определенных ситуациях и стараются достичь своих целей. То есть, как отметил первый Президент Республики Узбекистан Ислам Каримов: «Многие радикальные и экстремистские центры, которые превращают ислам в политику, создают идеологию зла и терроризма, в первую очередь отравляют умы молодых людей, превращая их в зомби», - сказал он. Необходимо искоренить в них корни злых сил, которые организуют конвейер для обучения террористов и пытаются воплотить в жизнь различные фантазии, например, о создании халифата[5].

В сегодняшнем мире информационной глобализации, когда растет угроза «массовой культуры», важность этого принципа становится еще яснее, если учесть, что различные деструктивные идеи входят без признания каких-либо границ.

Глобализирующийся мир ставит на повестку дня необходимость анализа национальных интересов в контексте сохранения общечеловеческих интересов и результатов цивилизации, «редактирования» национальных интересов. Это связано с тем, что «глобальное мировоззрение», сформировавшееся в современную эпоху, в определенном смысле по объективным и субъективным причинам безоговорочно определяет определяющую роль универсальных стандартов в социально-политических пространствах, где преобладают



национальные (в основном меркантильные, утилитарные, этноэгоистические) интересы.

То есть признание мировым сообществом универсальных интересов в качестве универсальной, глобальной ценности и их включение в содержание национальных демократических изменений требует расширения сферы международно-правовых отношений по интеграции интересов. Эти требования, в свою очередь, влияют на национально-правовые ценности интересов в условиях глобализации и обогащают их духовно-нравственное содержание.

Главный путь обеспечения мира и устойчивого развития в многонациональных государствах - решение национального вопроса на демократических началах, что, естественно, требует создания практических гарантий равноправия всех наций во всех сферах социально-экономической и политической жизни. Поэтому внимание уделяется следующим аспектам конституционного права в общественной жизни:

устранять любую дискриминацию по признаку национальной, религиозной, языковой, обычаев, традиций и других оснований, предотвращать национально-расовые, религиозно-духовные привилегии;

создавать возможности для бизнеса, образования и творчества на языках других народов на основе принципа толерантности, а также на государственном языке (узбекском) в области языка;

достижение демократического управления государством на основе верховенства конституционных законов светского характера, уважения прав народов.

В настоящее время в стране существуют религиозные организации разных конфессий. Созданы все условия для активного участия всех народов в жизни страны, в ее управлении.

В этой связи Конституция Республики Узбекистан, Закон «О свободе совести и религиозных организациях» является широким выражением толерантности. На основе этих документов Узбекистан создал всесторонние возможности для верующих всех религий для совместной работы в качестве партнеров на пути великих и общих идей. Поэтому цели и задачи нашего государства в дальнейшем развитии национальной и религиозной веры в сознании нашего народа, в сфере религии, в первую очередь, связаны с укреплением независимости Родины, построением социально ориентированного рынка экономия;

находит отражение в политической деятельности государства, направленной на улучшение благосостояния нашего народа.

Эти мероприятия включают Конституцию Республики Узбекистан, Закон «О свободе совести и религиозных организациях», осуществляется в соответствии с указами и постановлениями Президента Республики Узбекистан и постановлениями правительства.

Конституционные права официальных религиозных организаций, таких как государственные организации и общественные объединения, а также тот факт, что они не принимают непосредственного участия в своей работе, связанной с отправлением религиозных обрядов, представляют собой межрелигиозную терпимость. В случае экстремистских и фундаменталистских движений, которые могут носить политический характер и подрывать безопасность граждан, их следует контролировать и принимать соответствующие меры: международная, межэтническая и межличностная толерантность.

Адаптация национальных интересов Узбекистана во взаимодействии с мировым сообществом к тенденции всеобщего интереса - залог безопасности и устойчивого развития нашей страны.

Согласно нашему национальному законодательству, любая религиозная конфессия может иметь свою идеологию. Однако тот факт, что эта идеология не позволяет людям проникать в религиозные (особенно экстремистские, фундаменталистские) идеи, также является формой терпимости, присущей религиозным убеждениям. Потому что деятельность религиозных организаций в нашем обществе направлена на формирование национальной гордости и самоопределения, патриотизма и самопожертвования, формирование совершенного человека в нашем народе[6].

В многоконфессиональном обществе сосуществование людей разных религий в дружбе и сотрудничестве, согласии и сотрудничестве с государством в творческой работе является одним из ключевых факторов обеспечения устойчивого развития. Кроме того, как сказал первый Президент нашей страны Ислам Каримов, «человек не может жить без веры. Потому что совершенная и стабильная вера определяет духовный образ общества»[7].

Вопрос формирования отношения к религиозным убеждениям в сознании людей отражен в статье 31 Конституции Республики Узбекистан.



это правило отражает политику светских государств по отношению к религии: во-первых, государство признает, что оно не проводит антирелигиозную политику, гарантируя свободу совести; во-вторых, вера или неверие признаются и гарантируются как неотъемлемая часть прав человека; в-третьих, исходя из вышеуказанных принципов и в целях обеспечения религиозного баланса в обществе, тот факт, что государство допускает принудительную ассимиляцию религиозных взглядов, также показывает, что эти религии не вмешиваются в дела государства.

Таким образом, любая религия, рассматривая духовно-нравственное воспитание человека как свою функцию, обеспечивает возникновение толерантности к религиозным убеждениям в национальном сознании. Это означает, что появление религиозной терпимости выражается не чьей-либо волей, а верой в божественную сущность законов общественного развития. Это, в свою очередь, не означает, что государства абсолютно безразличны к религии или что религия полностью отделена от духовной жизни, скорее, это показывает, что государство и религиозные организации могут способствовать поддержанию гармонии, мира и терпимости в обществе (на уровне своих полномочий и возможностей).

Общность альтернативных доктрин о правах человека находит свое отражение в том факте, что общепризнанные стандарты и правоприменительные механизмы защиты их интересов требуют единого статуса повсюду. Ведь реализация международных документов, подкрепленных правовыми нормами, защищающими интересы, требует, чтобы духовные и нравственные ценности были одинаковыми по содержанию и применению, без исключения, были общими.

Выше мы видели, что статьи Конституции, являющейся основным законом нашего государства, посвящены таким вопросам, как защита интересов народов, проживающих в нашей стране, межнациональное согласие, межрелигиозная толерантность, свобода совести. Однако совершенно неправильно думать, что интересы, права и свободы наций выражены в этих статьях нашей конституции. Потому что каждая статья нашей Конституции носит комплексный характер не только в интересах всех народов, проживающих в нашей стране, но и в интересах народов мира.

На нынешнем этапе развития Узбекистану необходимо изучить принципы, закрепленные в нашей конституции, жизнь, труд

и бесценные труды наших великих мыслителей в воспитании полностью зрелого, очень уверенного в себе человека, в частности, в обучении нашей молодежи основа больших чувств и сознательности, таких как патриотизм, самоотверженность и верность людям, исследование и популяризация существующего богатого религиозного, национального и духовного исторического наследия, Ключевым вопросом является выполнение общенациональной задачи, например, ее использование для укрепления независимости.

Светский характер государства Узбекистан не исключает религиозной толерантности, напротив, одинаковое отношение ко всем религиям, политику межрелигиозного сотрудничества в развитии общества, он основан на этих принципах (идеях) и служит объективной причиной возникновения толерантности к религиозным убеждениям в национальном сознании каждого гражданина, проживающего в Узбекистане.

В этой связи наша Конституция учитывает цели и чаяния всех наций и народов, их чаяния, права и свободы, следует подчеркнуть, что это гарантия буквальной защиты их интересов. В частности, выбрать конкретный способ формирования основ демократического правового государства и гражданского общества на основе рыночных отношений в Республике Узбекистан: это способ обеспечить демократию, права, свободы и интересы человека как высшую ценность [8].

В целом построение демократического государства и сильного гражданского общества и их развитие будут зависеть от организованности всех национальностей, проживающих в республике, и укрепления идей межнационального согласия, межконфессиональной толерантности, толерантности. Активное участие людей разных национальностей в реализации целей и задач формирования национальной государственности создает социально-политические условия для установления мира в стране. В этом процессе государство является основным институтом в обеспечении социально-нормативной эффективности закона, который регулирует (координирует, адаптирует и интегрирует) альтернативные интересы, и его функции заключаются в следующем:

во-первых, разрабатывает правовые нормы, законы с общим социально-нормативным статусом защиты национальных интересов и интеграции в универсальные интересы;



во-вторых, создает систему организации, управления и контроля за деятельностью механизмов реализации разработанных социально-нормативных официальных документов и норм в общественной жизни;

в-третьих, будут созданы институты, ответственные за обеспечение приоритета национальных интересов в международных отношениях и их гармонизацию с общечеловеческими интересами;

в-четвертых, разрабатывает правовую основу для сотрудничества с негосударственными некоммерческими организациями, которые объединяют национальные и универсальные интересы;

в-пятых, он формирует систему институтов и их функциональную интеграцию, которые служат развитию духовных ценностей, сочетающих национальные и универсальные интересы.

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# CRITICAL ANALYSIS OF THERAPEUTIC POTENTIAL OF DALHANOKTA ARTAVA KSHAYA CHIKITSA

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## ABSTRACT

Good health is central to human happiness and wellbeing, but women's health is central to whole family happiness and wellbeing. Women's health is most neglected due to the busy schedule, shyness, negligence, etc which in turn cause many incurable medical complications. Menstrual health is one of the most neglected areas of female ill-health. It is mainly due to improper knowledge about menstrual illness. Acharyas have described separate chapters about these problems and their treatments. Artava kshaya is one among them. Many treatment modalities are explained by Acharya Sushruta but Dalhana comments on the main principles of treatment which has good results in treating Artava kshaya. This paper is to critically analyze Dalhanokta Artavakshya chikitsa.

## INTRODUCTION

### Nidana of Artavakshaya

No specific etiological factors responsible for artava kshaya were mentioned in Samhitas. Mithya ahara, viharas, Factors responsible for rasa-rakta dhatu kshaya, Causative factors for the vitiation of tridoshas can be mentioned as the nidanas of artavakshaya. Dalhana, the commentator of Sushruta has described the various etiological factors responsible for this condition,<sup>1</sup> they are Atisamshodhana, Atisamshamana, Vega Dharana, Asatmaanna, Manastaapa, Vyayama, Anashana.

**Samprapti:** - The samprapti of artava kshaya involves two mechanisms.

- 1) Dhatu kshaya janya
- 2) Marga avarodha janya

In dhatu kshaya janya Artavakshaya, the vitiation of doshas occurs by their respective visited ahara & vihara. These vitiated doshas affect rasadhatu & its

dhatwagni. So there is rakta dhatu kshaya which is an anuloma kshaya.

In marga avarodha janya artava kshaya<sup>4</sup>, the involvement of doshas are Vata and Kapha. According to Charaka the vitiation of artava vaha srotas occurs through sanga. This avarodha (obstruction) is caused either by Kapha or Vata alone or Vata- kapha together.<sup>2,4</sup> According to Sushruta, Vata – kapha are the factors causing avarana to artava vaha srotas. Pitta is not included because it causes artava vriddhi<sup>3,4</sup>. Sushruta has also explained that the trauma or injury to artava vaha srotas causes vandhyatwa (infertility), maithuna asahishnuta (dyspareunia) & artava nasha.

The treatment aim here is to relieve the obstruction caused by kapha or/& vata to the artava vaha srotas. After performing Snehana & Swedana karmas, Vamana karma in case of kapha vitiation can be done. Niruha & anuvasana basti are indicated in vata



vitiation. Uttarabasti can be indicated in obstruction caused by kapha & vata.

Rupa<sup>5</sup>: -

“आर्तव क्षये यथोचित काल अदर्शनम् अल्पता वा योनिवेदना च ॥ (Su. Su. 15/12)

Means the artava does not appear at the appropriate time or if present, it would be alpa in pramana and associated with Yonivedana<sup>1,6,7</sup>.

Chikitsa (treatment): - <sup>5,6</sup>

“तत्र संशोधन आग्नेतानाम् च विधिवत्त उपयोग : ॥ ”

(Su. Su. 15/12)

Artavakshaya should be treated by use of purifying measures & Agneya dravyas.

## DALHANOKTA CHIKITSA

### Material and methods

Analysis of Dalhanokta artavakshaya chikitsa i.e Vamana karma is to be done not Virechana, followed by Agneya dravya Upayoga<sup>5</sup>.

Dalhana says that for purification, only Vamana karma should be used, no Virechana because Virechana eliminates pitta which in turn reduces Agneyatva in the body,. Vamana karma does Sowmya dhatu nirharana, consequently, artava also increases. Agneya substances i.e. tila, masha, wine & sukta can be used.

### Poorvakarma

1. Deepana Pachana - till nirama dosha lakshana[3-5days]

2. Snehana:

A) Abhyantara - Arohana krama, till samyak snigda lakshana appear[</=7days]

B) Bahya sneha

3. Swedana- Bashpa sweda till samyak sweda lakshana[for 1day]

**Pradhana karma:**\_\_\_Vamana karma with Madanaphala yoga

### Paschat karma

1. Dhoomapana

2. Samsarjana karma-according to Shuddi

After Vamana karma, Agneya dravya is given to increase the Arthava.

## DISCUSSION

Kaphaprakopaka ahara-vihar by kaphaprakruthi stree, there will be a visitation of Kapha dosha mainly, which causes meda vridhi. This causes visitation of the menstrual cycle (Ritu chakra). It may cause Yathochita kala adarshana of arthva mentioned by Sushruthacharya. Also, vitiation of vata pradhana tridosha avarana to artavahastrotas. Thus it will lead to dushti of artavavaha strotas in terms of Artavakshaya along with this meda vridhi.

## PROBABLE MODE OF ACTION OF VAMANA

Vamanakarma<sup>4</sup>: -

Vamana karma is a medicated emesis/vomiting therapy, which removes dushitha Kapha collected in the body. Vamana karma is done during Kapha prakopa condition. Vidhi poorvaka emesis therapy eliminates and expels vitiated kapha dosha through the upper GI tract. Thus by this treatment, the prakupita kapha is eliminated out through the mouth from the koshta.

The effect of vamanakarma on the entire body system can be explained by the concept of regulation of homeostasis by the nervous system& endocrine system: A hypothetical approach. There is an imbalance of dosha in the diseased condition which means normal homeostasis is disturbed.

**Deepana - pachana:** Enzymatic system or metabolic activity of the body is activated at intracellular & circulatory level, which are under the control of centers in the brain. Mild action on the local autocrine, paracrine gland may be noted. Thus the body is made to face further disturbances.

**Snehapana:** A closely monitored & systematically controlled physiological, pathological changes are artificially made through the oral administration of snehapana to disturb homeostasis for which the body responds positively or negatively through a feedback mechanism system. Thus systems are activated or suppressed, bringing changes at the molecular level, ionic level, cellular level, tissue level, etc. Anabolic, catabolic process (like breaking down, rearranging, remodeling, restructuring in chemical constituent, ionic bonds, etc) in the body is activated or suppressed through various physio-chemical principles involved in the body.

**Swedana:** Adjustment to the changes caused by the external environment to that of the internal environment is the main concern of the homeostatic system. By subjecting the body in a programmed manner to abhyanga & swedana further disturbance is made in homeostasis. Swedana increases microcirculation—again rearrangement of bodily chemicals---inducing stress --- feedback mechanism activated —separation of toxin---movements of this from extracellular to intercellular space creating a lot of changes in biochemical constituents of the body.

**Vishranti day:** By following this, a time is given to the system to come back naturally in the process of conversion, separation, formation reunion etc of molecules.. It is for one day in Vamana may be only such physio chemical molecule can take part. Providing kaphakara aahara may be to increase such physio chemical activities.

**Vamana karma:** An intervention to make the body come back to the normal state of homeostasis which



is strictly observed by maniki, lingiki, antiki lakshanas.

**Samsarjana karma:** - Body is made fit again or for faster systematic rejuvenation is achieved in a natural way allowing all the system to improve in its way.

#### **Mode of action of vama Aushadhi:** -

The vama aushada is comprised of qualities like Ushna, Tikshna, Suksma, Vyavayi, Vikasi and formed with a predominance of agni and vayu mahaboota. But the main action is attained by the urdhvabhagahara prabhava possessed by these drugs. The drugs due to their virya will reach hridaya and dhamani thereby reaches Stula and anu srotas of body. The vyavayi Guna of the drug will help in the quick absorption and movement of the drug. Vikasi Guna will help in breaking the binding of dosha and dushya. Due to Ushna Guna drug will cause vishyandhana and due to Tikshana Guna causes Chedhana of Doshas. The Sukshma Guna helps to reach minutest channels Agni and Vayu mahabhutha because of its qualities like laghutva and tendency to move upwards will help in bringing Vamaka effects. More importantly, **Prabhava** of the drug is especially responsible for bringing about the Vamana action.

While describing the act of Vamana, Charaka has used the word, "Udana Pranunno" on which Chakrapani comments that Vamana drugs lead to upward direction due to Udanavayu & has the prime role in conducting the whole Vamana process as it occurs in its site. Charaka narrates the sites of Udanavayu as Nabhi, Uta & Kantha. Vagbhata also supports his view & adds new site like 'Nasa' and plays a role in activating Dhi, Mana, continuous changes of Fight or Flight emotions, Thus, Udana Vayu helps the Vamana drugs to remove the extracted matter through an exhaustive process of Vamana which indicates an involvement of **nervous system**

**Dhamani** are the channels that carry some constituents with them. Definition "Dhmanat dhamanyah" means which pulsates. Thus, it is the structure resembling the artery. Chakrapani also comments that it provides nourishment to Paramanus. So, in the Vamana process, dhamani is the medium through which Vamana drugs reach the cellular level for their purpose. He remarks that vama drugs remain there themselves & pass the impulses towards several areas throughout the body through dhamani. This distinctly points to the conduction of impulses through the means of the nerves Thus the act of Vamana proceeds through both the systems i.e circulatory & nervous systems.

**Hrudaya:** The drugs, due to their "Swavirya" reach Hrudaya from where they spread all over the body. To reach the micro-level through

the body in a very short time, chief systems are circulatory & nervous. As it is said that Vamana drugs move into dhamani after passing from Hrudaya, one can say that here the word "Hrudaya" may have both meanings, showing the involvement of both the vital & chief organs i.e. Heart & Brain.

Aakantapana of milk causes stretching of stomach, initiating stretch receptor to send the neurological signal through the vagus nerve to vomiting centers in the brain, after taking madanaphala yoga chemoreceptor to detect the change in ph of the stomach content & send the signal to the brain, thus initiating the act of Vamana without absorption of the drug.

The process should be completed within 45min because after 20-25 min a peristaltic movement starts at funds which may interfere in the antiperistaltic movement of

#### **Vamana**

**The probable mode of action of vama in Artava kshaya is mainly dosha pratyaneeka.**

By deepana, pachana. Snehapana, swedana(-poorvakrama) in a systematic way help in the separation, mobilization, and liqification of morbid Kapha ( ? altered biochemical constituents). (b)sex hormones namely estrogen. androgen is formed only by cholesterol hence intake of snehapana may help in their formation (c)snehapana will promote the selection of dominant follicle (e)Make Estrogen, FSH, etc receptor to activate. (f) Vamana karma & samsarjana karma brings back doshic imbalances. Thus practiced line of treatment of modern medicine weight reduction, decreasing in insulin-like growth factor, harmonizing the hormone can be achieved by vamanakarma.

Ayurveda identifies the dominance of Kapha dosha-Soumya dhatu as an important causative factor in artvakshaya.& removal of this is achieved by vamanakarma to maintain agneya tatva in the normal condition a possible approach correcting at this level.

#### **Agneya dravyas:**

Drug action depends upon the rasa, guna virya, vipaka, and prabhava of the drug.

The drugs are having agneya quality which is responsible for vata, shaman, and pitta vardhana. The pharmacological action of these drugs is responsible in two ways i.e., one is to improve the dhatus and the other is to stimulate menstruation.

#### **CONCLUSION**

Different modalities of treatment are explained for Artava kshaya. Among them, the samshodhana is an important one. Vamana and Virechana both are found to be helpful in clinical practice. The concept of Vamana karma explained by Dalhanacharya seems to be more beneficial in avarana janya Artava kshaya. It acts by eliminating



the saumya dhatu in turn increasing the pitta which finally elevates the artava. Thus helping in treating Artavakshaya.

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# **THE COMMUNICATIVE APPROACH AND THE COMMUNICATIVE COMPETENCE FORMED ON ITS BASIS THROUGH TEACHING RUSSIAN AS A NON-NATIVE LANGUAGE IN A HIGHER MILITARY EDUCATIONAL INSTITUTION**

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## **ABSTRACT**

*The article is devoted to the peculiarities of the communicative competence formation during the Russian classes as a non-native (as a foreign language). Communicative competence, the components of which include linguistic, socio-cultural, sociolinguistic and pragmatic aspects, is considered as a component of the future professional activity of cadets of higher military educational institutions. The emphasis is placed on the merely linguistic component of the communicative competence at the initial stage of teaching the Russian language. As an instance, we have chosen a system of exercises for the lesson, where students are introduced to various ways of expressing agreement // disagreement in the Russian language.*

**KEYWORDS:** *competence, professional competence, communicative competence, non-native language, communication situation modeling.*

## **INTRODUCTION**

The communicative direction in teaching a foreign language, in particular, Russian, is currently the most popular, since it meets the main function of using the language as communicative. Communication in any language involves the presence of a listener // speaker, each of whom uses the means of the target language in accordance with *the goals and conditions* of communication.

The communicative approach to the study of a foreign (non-native) language is based on the concept of *communication*.

The term "communication" is closely related to such corresponding linguistic sciences as psycholinguistics, sociolinguistics and sociopsycholinguistics. The development of contemporary linguistic thought is characterized by a change in emphasis from language to the use of language in speech in accordance with different conditions as well as the purpose of the speaker. As a result, new directions have emerged in linguistics: the theory of speech acts, functional and communicative description of language, analysis of conversational dialogic speech, and text linguistics.

Communicative approach in teaching foreign (non-native) language is ultimately a focus on communication, which is considered as a multi-structural and multidimensional education.

## **OBJECTIVES**

The purpose of the study is to identify 1) the main components of the communicative approach and communicative competence in teaching a foreign (non-native) language, in particular, Russian 2) the description of the linguistic component of the communicative competence at the initial stage of teaching.

## **LITERATURE REVIEW**

Above all, we turn to the consideration of the concepts of "competence", "competence" and "communicative competence" in the aspect of military professional education.

One of the central concepts in teaching a non-native language, in particular, Russian, is the concept of communicative competence, the achievement of a certain level which is regarded as



the goal of mastering a foreign language [5, p. 9; 1, p. 32; 3, p.79; 4].

For the first time the term "communicative competence" appeared in the sociolinguistic researches of D. Hymes [6], who defines it as the knowledge of a sufficient language to carry out communication in a given language. He writes: "We have then to account for the fact that a normal child acquires knowledge of sentences, not only as grammatical, but also as appropriate" [6, p. 277]. In the most general definition, communicative competence is interpreted as "knowledge, skills and abilities necessary for understanding others' and generating one's own programs of speech behavior" [13, p.19]. According to the Pan-European competences of foreign language proficiency, they speak about general and communicative competences. General competencies in the deepest sense include all the knowledge accumulated by a person over a certain period of life, and also include existential competence – "the totality of individual characteristics of a person, his personality traits, views, ideas about himself and others, readiness for social interaction" [6, p.9-10].

Following a number of scientists, under the competence (a number of competencies), we will understand specific professional qualities and skills that allow a future officer to perform successfully their professional duties [2; 8; 11; 17]. Competence (one or another level of competence) is achieved in the course of professional activity with the accumulation of life and professional experience within many years, "in the process of official activity, communication, self-knowledge of the functional tasks of the chosen profession with a multifaceted awareness of the place in it [17, p. 9]. The level of competence in a particular field cannot be determined without the presence of certain competencies. At the same time, the level of proficiency in individual competencies is correlated with the overall level of professional competence of the specialist.

Golovanova I. F. defines "the professional competence of cadets as an integrative property of the individual, expressed in the unity of theoretical, practical and personal readiness to carry out their professional activities" [8].

Professional competence can be assessed by a number of parameters, the most important ones are "the focus of the professional activity and the ability of implementation expressed by indicators of their content, structure and effectiveness" [2].

We can talk about the key and related competencies in the training of a military specialist.

In contemporary pedagogical science, military-professional activity is distinguished into a separate type of activity and consists of a number of components (or competencies) that a cadet of a military university must master: motivational-value,

informational, intellectual-cognitive, communicative and managerial [8, p.31].

We will consider only one of the components of professional competence – communication competence. We understand communicative competence narrowly and in general. On the one hand, it involves the ability to interact with people of different levels of education, social affiliation, and psychotype; knowledge on various ways of interaction, group collaboration skills, and on the other, communication in a foreign or non-native language (German, English, Russian, Urdu, etc.) [8, p. 32]. Communicative competence in the framework of a non-native (a foreign language) involves knowledge of the basics of grammar, the presence of a certain lexical stock, as well as possession of the skills of constructing correct utterances in oral spontaneous speech.

Knowledge of a foreign or non-native language (s) is an integral part of a successful professional activity of a cadet in the future. The ever-increasing need for military specialists who speak different languages makes this discipline one of the main ones in the formation of a specialist with a high professional competence.

Obviously, communicative competence in a non-native language includes several components: merely linguistic, socio-cultural, sociolinguistic and pragmatic [10].

The most important is the linguistic component, which implies knowledge of the basic grammar of the target language and the ability to build a spontaneous speech in this language. Interestingly, the linguistic component assumes not only a certain amount and quality of knowledge, but also a way to store received information. For instance, it can be an associative series of the words in Russian such as *сосулька – снег, солнце, зима, таять*. The formation of such associative series is possible, as an example, during working with educational texts.

The sociocultural component obliges you to listen to the communication partner, to some extent take his position and thus strive to cooperate with the partner in a dialogue, and not to conduct a monologue.

The sociolinguistic component involves the communicative interaction of people within the society in such a way that the communicative intentions as well as the meaning of the speaker's statements are absolutely clear to the interlocutor. Linguistic markers of social relations, norms of politeness, stable expressions that are understandable to everyone, registers of communication (a model of speech activity determined by the speaker's point of view and his communicative intonations which has a certain repertoire of language means and being implemented in a specific text fragment, dialects) are



also important. The influence of the above mentioned competence is represented in the documents as "a great impact on speech communication between representatives of different cultures, who may not even be aware of it" [6].

The pragmatic component implies the influence of the speaker on the listener within the framework of a communicative situation and the response of the listener. All these components allow the speaker to communicate successfully. "In general terms, pragmatic competence can be defined as the ability to convey the intended utterance with all its nuances in any socio-cultural context and to interpret the message as intended by the speaker. However, it is worth noting how pragmatic competence was considered by different scientists, and what they understood by pragmatic competence. In this way, we will try to study its component composition and the relationship within other competencies" [9, p. 59]

Thus, the communicative competence can be considered as the ability to use the language correctly in a variety of situations, the improvement of this ability depends on the social experience of the student [18].

The consideration of communicative competence as an important component of professional competence and professional activity is associated with the need to develop the cadets' skills and practical skills that are necessary for comprehensive provision of human and working contacts, ethics and tactics which are helpful on building a conversation. The actual language experience plays a significant role and it is acquired in the course of constant communication and practice with various texts in a non-native (a foreign language).

## METHODOLOGY

When describing the communicative method, its principles are important, the main of which are the principle of complex mastery of foreign language culture through communication, the principle of the development of speech-thinking activity, the principle of individualization of the learning process, the principle of situation based speech, the principle of functionality and novelty [12; 14; 15; 16].

*The principle of mastering a foreign language culture through communication means gaining knowledge about the culture of the target language through communication in this language.* Communication in a foreign (non-native) language is regarded as a social process in which students gain knowledge about material and spiritual culture through a foreign language. Consequently, "communication performs the functions of learning, cognition, development and education in the communicative teaching methodology" [12, p. 141].

*The principle of interrelated mastery of all aspects of foreign language culture and all types of speech activity.* The complex nature of foreign language culture is manifested in the unity and interrelation of its educational, cognitive, educational and developmental aspects. Each of these aspects is an equivalent in a practical sense. But the true mastery of one is possible only if the others are mastered.

In this sense, the relationship and interdependence of all four types of speech activity is important: reading, speaking, listening and writing. It should be noted that several or all types of activities can be used in one exercise at once. For example, we can talk about working with a text that is first perceived through hearing (listening) and then the student reads the text (reading), performs a variety of written tasks (writing) and afterwards answers questions about the text (speaking).

The principle of the development of speech-thinking activity means the activation of students' activities through the development of independent thinking. This independence is achieved by using speech exercises, working with dialogues (converting monologue speech into a dialogue and dialogic speech into a monologue). In addition, a dialogue appears which draws attention to the topic under study and the given situation. The language material is fixed through exercises that are conducted in pairs or in a group (discussions, "round tables", role-playing games, projects).

The principle of individualization of the learning process involves taking into account all the personal qualities and abilities of a person. Taking into account personal qualities will help the teacher to better understand the student, to choose for him individual tasks and more individualize the learning process.

The principle of learning based on the situation that should be simulated in the classroom. During the reproduction of the situation, speech formulas, constructions, grammatical models, as well as the nature of behavior in each specific situation are worked out, since it can significantly differ from the usual one. The learning situation as a unit of learning models the situation as a unit of communication. Thus, the situation acts not only as a so-called speech situation, but also in a broader status as the situation of educational activity.

The principle of functionality in teaching a foreign language means the selection of language material and areas of communication that are relevant to the student.

## RESULTS AND DISCUSSION

Now we will consider *the conditions for the formation of communicative competence in a strictly linguistic aspect.*



The problem of mastering a non-native language is quite complex and ambiguous. Various aspects of this problem (pragmatic, sociolinguistic, and strictly linguistic) have been capturing the attention of methodologists and linguists. The solution to this problem lies both in the content side of teaching a non-native language, and in various ways of teaching. A reasonable organization of a system of exercises that promotes the development of speech in a non-native language can be solution to this problem.

As you know, the assimilation of lexical and grammatical material in a non-native language is gradual: the formation of certain skills (speaking, writing, reading, listening) and their development as comprehensions.

With the help of language exercises, grammatical structures are learned and memorized and later can be utilized in speech exercises. Obviously, each type of exercises corresponds to the short – term goal that means the acquisition of a grammatical structure or imitation of a real speech situation in the audience and the long-term goal that states the ability to use it in a situation of speech communication. Therefore, it is so important to move on to exercises that, on the one hand, contain information of a grammatical nature and on the other which develop the ability to engage in a real speech situation at any time as exercises of a communicative nature [7].

As an example, we have chosen a system of exercises for the lesson, where students are introduced to various ways of expressing agreement / / disagreement in Russian language. Russian constructs of agreement with varying degrees of confidence and disagreement, as well as the ability to use them in a situation of real speech communication at the initial stage of learning the Russian language, are the main objectives of the lesson.

The system of exercises is preceded by expressions of speech etiquette and their translation into the native language of students with a comment on the situation of use.

To practice the skills of using these structures, cadets can be offered several types of exercises.

**Type 1. Exercises for reproducing a particular construction in speech.** For example:

**Exercise 1. Confirm the accuracy / / inaccuracy of your interlocutor's opinion.**

1. Veroyatno, trudnouchit'syanavashemfakul'tete? 2. Etot professor ochen' horoshijlektor. 3. Horosho by v sovershenstveznat' russkijlikakoj-to drugojinostrannyjyazyk.

**Exercise 2. Answer the questions positively.**

1. Razvetrudno stat' yuristom (politologom)?
2. Vychitalisegodnyashnyuyugazetu?
3. Vyuzhegotovy k zachyotu?
4. Vyuzhesdalielkzamenpoistorii (po discipline «Gosudarstvoipravo»)?

**Type 2. Exercise for reproducing the construction and reasoning on a given topic. For example:**

**Exercise 3. Express agreement / / disagreement and explain the answer.**

1. Uchit'syachemu-libonikogda ne pozdno, no s kazhdymgodomvseslozhnee. 2. Vsepredmety v tojiliinojstepenineobhodimy. 3. Horosho by inogdastudentui prepodavatelyumenyat'syarolyami! Vozmozhno li eto v voennomvuze?

**Exercise 4. Who do you agree with and why? Express your opinion.**

Kostya. Vsegovoryat, chtovrat' ne horosho, no ved' ipravdu ne vsegdamozhnoinuzhnogovorit', inogdanadoidtinakompromiss. Maksim. Kogdayareshayuzadachu, ya ne lyublyu, eslimnepodskazyvayut. Ishchusvoyoreshenie.

**Exercise 5. Answer positively / / negatively, explaining your answer.**

1. Vysostavlyaeete plan nasleduyushchij den' pered tem, kakidti spat'? Nuzhno li etodelat'? 2. Dolzhen li odinchelovekzabotit'sya o drugom, schitayaetoneobhodimym? 3. Hotite li vybyt' professionalom v svojomdele? Pochemu?

**Type 3. Exercise for the transformation of statements. For example:**

**Exercise 6. Turn a dialogue into a monologue. – My**

zakonchimeturabotusegodnyailiostavimnasleduyushchij den'? – Konechno, segodnya. A kakzheinache.

**Exercise 6a. Turn a monologue into a dialogue.**

Policejskijgovoritprohozhemu, chtonel'zyaperekhodit' ulicunakrasnyjsvet. Grazhdaninotvechaet, chtozadumalsyai ne zametil, kakzagorelsyakrasnyjsvet.

**Type 4. Exercises to supplement the proposed statements.**

**Exercise 7. Complete the dialogue in such a way that it reflects a situation from your training activity.**

1. – ..... – Protivetogo ne vozrazish'. 2. – ..... – Etosamosobojrazumeetsya. 3. – ..... – Inacheiby' ne mozhet. 4. – ..... – V kakoj-to mere etotak.

**Exercise 7a. Give responses expressing a prohibition or advice not to do something.**

Papa, yahochupojtizavtranavecher v klub. – ...Andrej, pojdupoproshu u Natashi tetrad'



pomatematike. – ... Nikita, yahochuposmotret' novyjfil'm. – ... Otec, pojdupozvonyuViktoruiuznayu, kogdabudetkonsul'tacijapomatematike. – ... Mozhnovzyat' tvoikonspekty? – ...

**Exercise 8. Compose a dialogue using a situation of temporary concession to someone's opinion, with the following expressions:**

dopustim, pust' budetpo-vashemu, predpolozhim. Vovsyakoj li no ispol'zovat' takiekonstrukcii? Mozhno li prepodavatelyu, starshemupozvaniyu v otvetna ego trebovaniyaskazat' Pust' budetpo-vashemu!

**Type 5. Exercises for practicing the choice of certain lexical means and their explanation.**

**Exercise 9. Explain the meaning of the word "npomus".**

Moj brat protivgromkojmuzyki. – Vy ne protiv, esliypokazhuetifotografiidoma? – Net, konechno, ya ne protiv. Vothorosheekarstvoprotivanginy.

## CONCLUSION

The proposed development of the lesson is a system of exercises that can form cadets' skills in using constructions in statements that are different in their communicative orientation (affirmative // interrogative) and in their structure (simple // complex, complicated by introductory and insert constructions).

Simulation of a given situation, assigned to the cadet, solves several tasks simultaneously. Firstly, the assimilation of new language structures and lexical minimum. Secondly, the acquisition of the ability to freely navigate in a foreign language environment. Last but not the least, the accumulation of communication experience, which will be needed in future professional activities.

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## **EFFECTIVENESS OF SINULOR SPRAY IN THE DIAGNOSIS AND COMPLEMENTARY TREATMENT OF ETMOIDITIS IN CHILDREN**

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### **RESUME**

*Comparative evaluation of the spray's therapeutic effectiveness Sinulor with Xylometazoline 0.05% nasal spray (without sea water) for influenza and other acute respiratory associated with rhinitis, 100 children aged 3 to 15 years (50 people in each group) showed that the use of the spray Sinulor promotes faster elimination of catarrhal symptoms in the nasopharynx, reducing the duration of the febrile period, thereby achieving a rapid recovery of patients. There was an increase in the activity of secretory sIgA formation and a reduction in the detection period of pathogens in the nasal passages of patients. Good tolerability of the drug and the absence of adverse events were noted.*

**KEY WORDS:** *children, acute respiratory infections, risk factors, secretory immunity, Sinulor*

### **RELEVANCE OF THE PROBLEM**

The nasal cavity provides an exceptional functional role that cannot be compared with anything else in terms of its significance for the vital activity of the body. Thanks to the coordinated various protective factors carried out during the passage of an air jet through the nasal cavity, the inhaled air is warmed, moistened, and cleansed of suspended particles, bacteria, and viruses that can have a harmful effect on the body [1,5].

The nasal mucosa is covered with a pseudomolayer squamous epithelium consisting of ciliated, goblet-shaped, and short and long insertion cells. The ciliated apparatus of ciliated cells provides mucociliary transport function. Goblet cells accumulate and secrete a significant amount of liquid mucoid and serous secretions that moisten the surface of the epithelium[7,9]

Nasal secretions perform the following protective functions:

- moisturizes the nasal mucosa and ensures the normal functioning of the ciliated epithelium;
- heats the inhaled air;

- transports inhaled particles deposited on the mucous coating;

- performs an anti-infective protective function, due to the presence of lysozyme, lactoferrin and anti-infective antibodies in it [2].

The transport function of cilia is adversely affected by conditions of increased dryness in industrial and residential premises, climatic factors, as well as allergens, viral and bacterial toxins.

Endonasal administration of various pharmacological agents can also synchronize or disrupt the complex mechanism of mucociliary clearance. In order to restore the function of the nasal mucosa, various inhalations, washing the nasal passages with sea water, and irrigation of the nasal cavity are often used recently [3,4].

### **THE PURPOSE OF THE STUDY**

Evaluation of the effectiveness of the use of "Sinulor" spray in the treatment, diagnosis and complex treatment of etmoiditis in children.

**RESEARCH METHODS**

A nasal spray was used "Sinulor" for washing the nasal cavity for children in a bottle of 125 ml. It was used to irrigate the nasal cavity 3 times a day. Assessment of the nasal cavity was performed by clinical examination and using a visual analog scale (VAS) with divisions from 0 (normal condition) to 10 (complete congestion); <5 was considered as normal, >5 - as nasal congestion.

Clinical examination of the nasal cavity took into account the presence of discharge in the nasal passages, edema and hyperemia of the mucous membrane of the nasal Concha and nasal cavity.

The study included 100 patients aged 3 to 15 years, who were divided into 2 groups.

**Group 1 (primary)** as part of therapy, I received Sinulor 0.05% nasal spray 3 times a day and antibacterial drugs inside according to the scheme daily (at least 4-6 times a day), the nasal cavity was

washed with Xylometazoline 0.05% spray for 7-10 days.

100 children were under observation, The duration of therapy and follow-up was 5-7 days (depending on the severity of the disease).

According to the indications, children received symptomatic therapy (incl. detoxification agents), antipyretics (when the body temperature rises > 38.5 °C), and expectorants, multivitamins, as well as antiviral drugs and antibiotics (if necessary).

**Group 2 (comparisons)** — 50 patients receiving only traditional therapy (vasoconstrictor nasal drops, antibacterial therapy).

All patients had two or more symptoms, of which nasal congestion and/or discharge from the nose or along the back of the pharynx are mandatory, and additional signs are pain or pressure in the face area in the projection of the paranasal sinuses and a decrease in the sense of smell" [10].

**Table 1. Distribution of patients by age**

Age	n (%)
3-6	80 (80%)
7-10	15 (15%)
11-15	5 (5%)
Total	100(100%)

**Table 2. Severity of acute rhinosinusitis symptoms in children before and after treatment on a 10-point visual-analog scale**

Evaluating the symptom	Day 1		Day 3-4		Day 7-10	
	Main group	comparison Group	Main group	comparison Group	Main group	comparison Group
Temperature rise	4	4	3	4	1	2
Weakness	6	6	4	5	1	2
Intoxication	5	5	4	4	1	2
Headache	5	5	2	2	0	1
Palpation soreness	4	4	0	1	0	1
<b>Local users</b>						
Discharge from the nose						
Slimy	6	6	3	4	0	1
Mucopurulent-гнойное	6	6	4	5	1	1
Purulent	6	6	2	3	0	1
In the middle nasal passage	5	5	3	3	0	
In the upper nasal passage	5	5	2	3	0	1
In the General nasal passage	6	6	4	6	2	3
Swelling of the	6	6	4	5	1	2

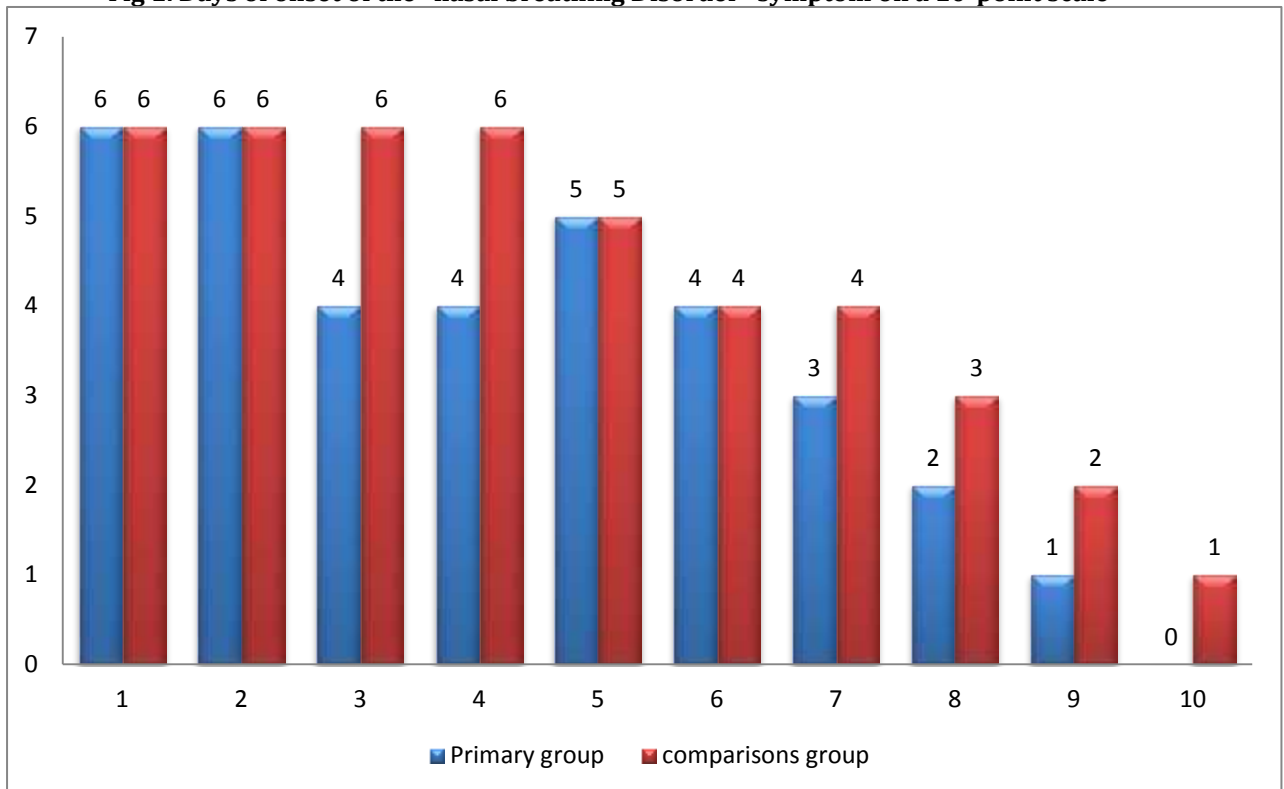


<b>nasal mucosa</b>						
<b>Hyperemia of the nasal mucosa</b>	6	6	3	5	1	3
<b>Nasal breathing disorder</b>	6	6	4	6	2	3
<b>Draining of the discharge along the posterior wall of the pharynx</b>	5	5	2	3	0	1

According to the objective examination of patients of both groups on the 5th day of the disease, no significant differences were noted (hyperemia and edema of the nasal mucosa remained, but their

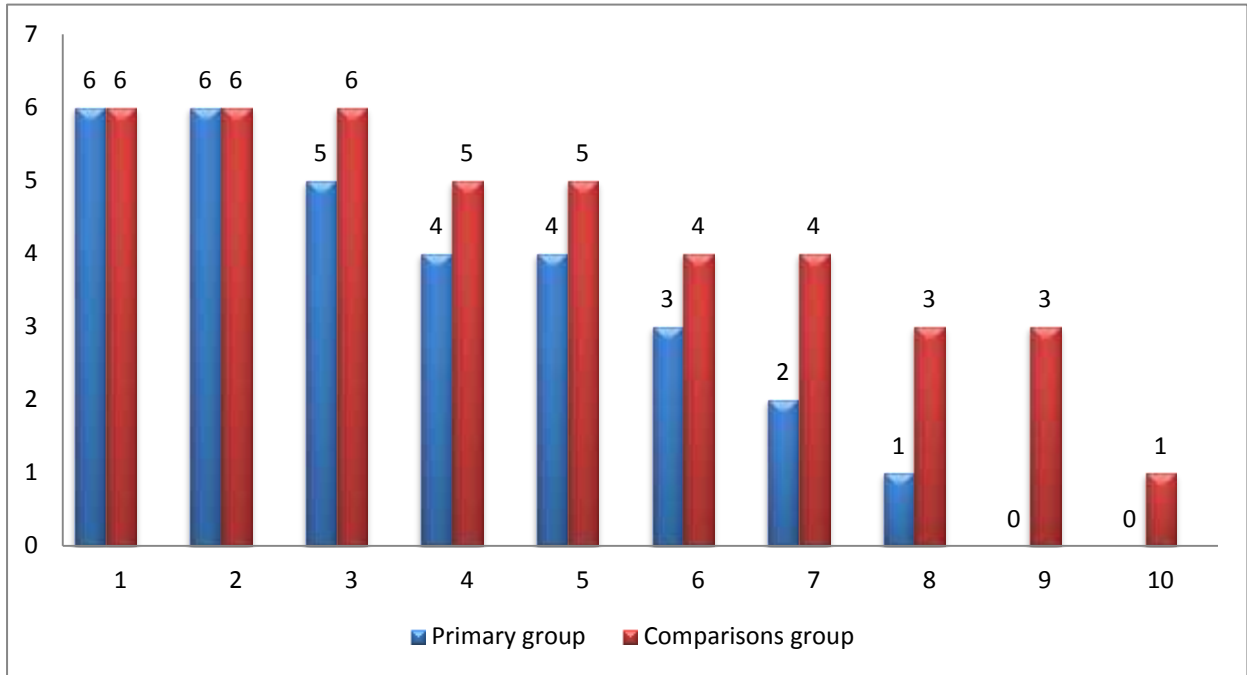
intensity decreased, mucosal discharge in the nasal cavity). The dynamics was positive for all symptoms, but nasal congestion persisted in all patients.

**Fig 1. Days of onset of the "nasal breathing Disorder" symptom on a 10-point scale**

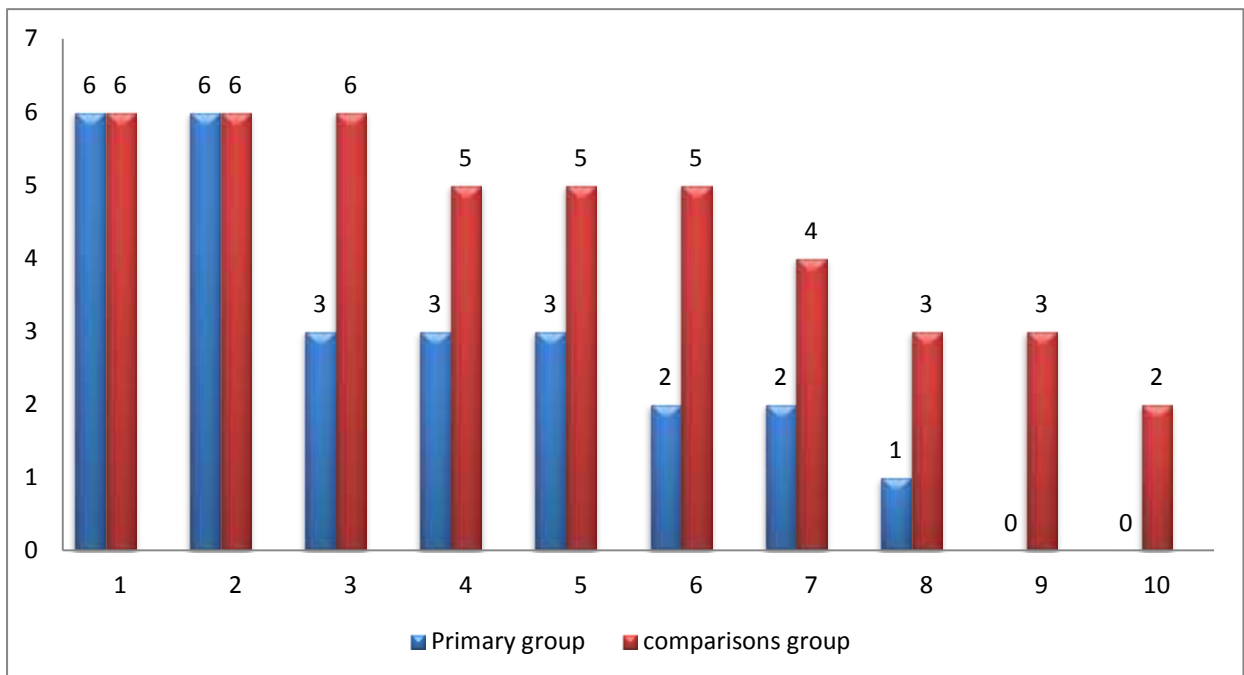




**Fig 2. Dynamics of symptoms of "nasal mucosal Edema" on a 10-point scale**

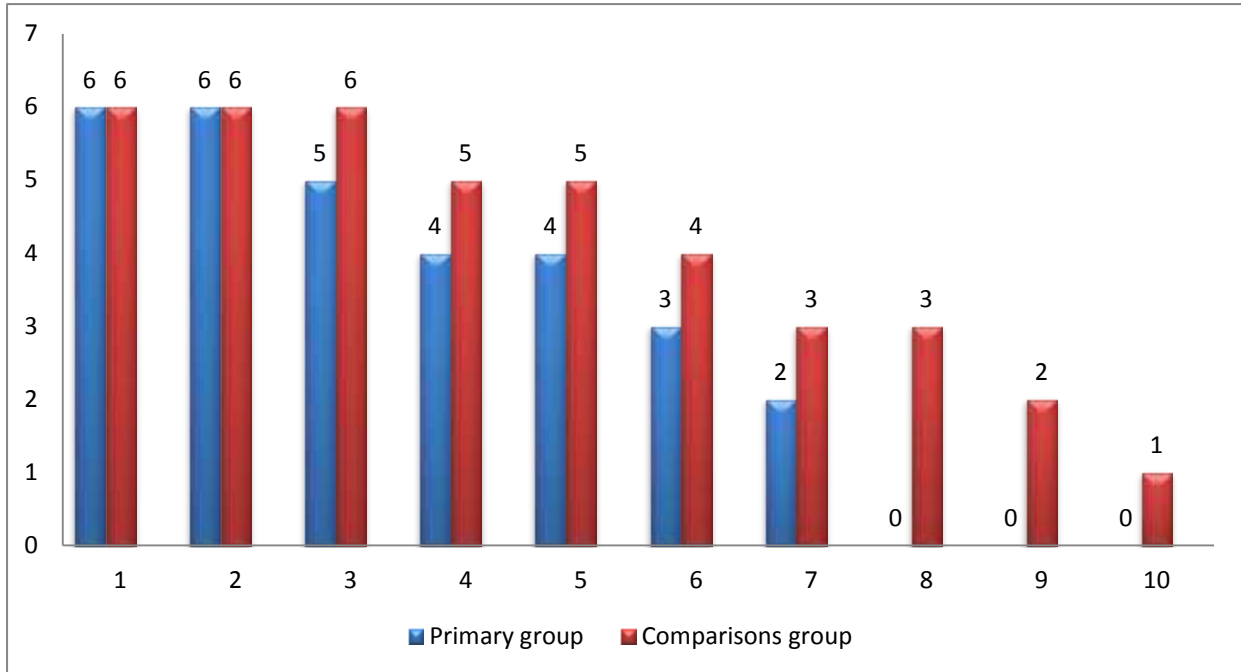


**Fig 3. Dynamics of symptoms of "Hyperemia of the nasal mucosa" on a 10-point scale**





**Fig 4. Dynamics of symptoms "Discharge from the nasal cavity " on a 10-point scale**



In the comparison group, there was also a positive trend in the functional parameters of nasal respiration, but the subjective recovery of patients lagged behind that in comparison with the main

group. Patients complained of severe dryness of the nasal mucosa, severe difficulties with self-toilet of the nose, and a longer decrease in the sense of smell.

**Table 2. Evaluation of the effectiveness of treatment in the observed children according to doctors' opinion**

Clinical efficacy	Main group %	Comparison Group %
Cure	98	96
Improvement	2	4
No effect	0	0

Therapeutic effectiveness of the drug Sinulora with xemetazoline was evaluated after the end of therapy by both the doctor and the patient according to the 4-point system: unsatisfactory, satisfactory, good and excellent (table 12). As a result, 54 (90.0%) patients

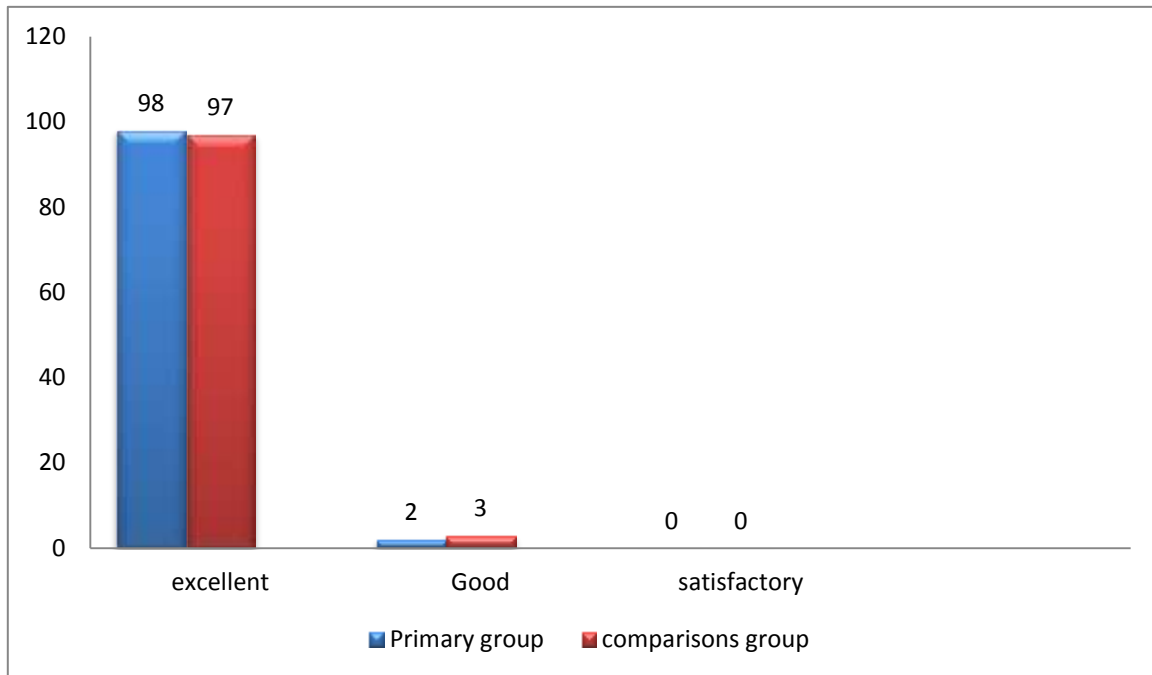
and 46 (76.7%) doctors gave a good and excellent assessment, which indicates a decrease in symptoms, including nasal congestion, while maintaining this improvement for a month (40th day from the start of treatment).

**Table 3. Evaluation of the effectiveness of treatment in the observed children according to patients' opinion**

Clinical efficacy ть	Main group %	comparison Group %
Excellent	67	56
Good	30	35
Satisfactory	3	9
No effect	0	0



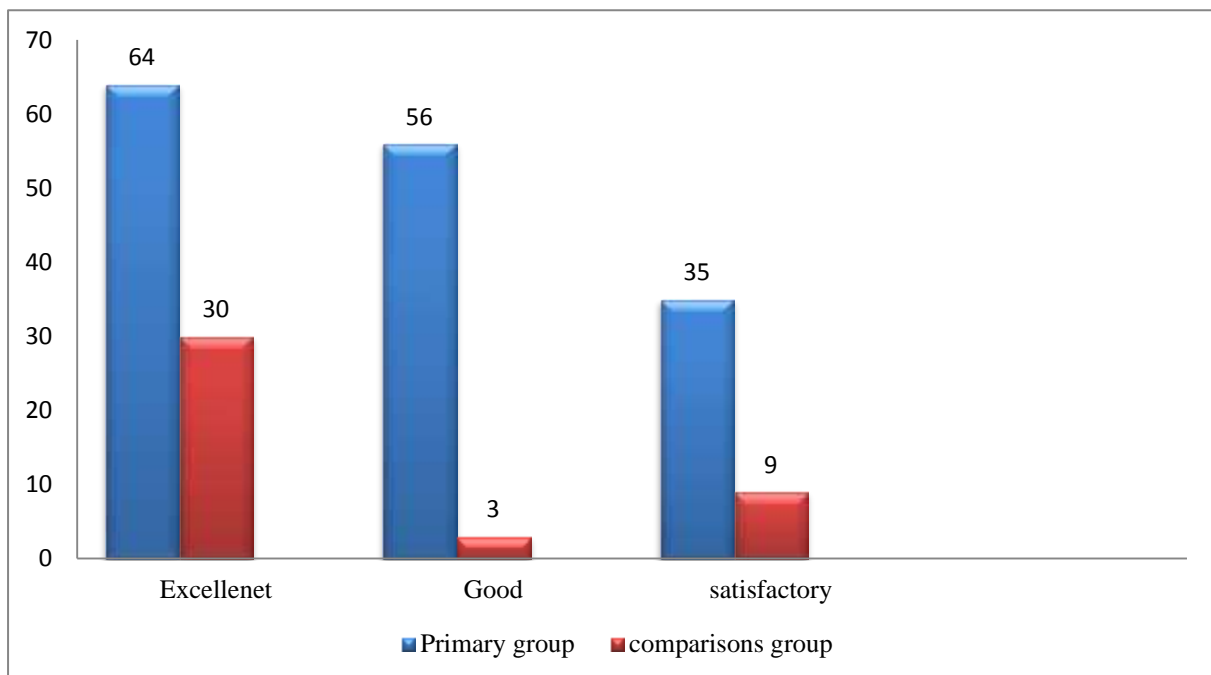
**Fig 5. Rating Evaluation of the effectiveness of treatment in the observed children according to doctors ' opinion**



As can be seen from the diagram (Fig. 2), we observed a pronounced positive dynamics in the

clinical manifestations, which indicates the high effectiveness of the chosen therapy method.

**Fig 6. Rating Evaluation of the effectiveness of treatment in the observed children according to patients ' opinion**



During the study, it was found that the drug spraySinulor penetrates all parts of the nasal cavity and nasopharynx, actively cleanses and moisturizes them, reduces the viscosity of secretions, promotes

easier independent and active removal of discharge, as well as reducing the frequency and duration of the toilet of the nasal cavity.



## CONCLUSION

1. The results of the performed study indicate the expediency of using a combined drug Sinulora with xelometazoline in the treatment of patients with inflammatory diseases of the nose and paranasal sinuses, as well as for the prevention and treatment of postoperative complications in patients who have undergone surgery in the nasal cavity. The drug is well tolerated by patients when applied topically, does not give systemic effects and can be recommended for wide use in outpatient and clinical practice of an otorhinolaryngologist.

2. Antibacterial drug Singular of 0.05% in the form of a spray microdiffusion spraying of the product ensures a deep and mellow irrigation of the mucosa, which contributes to effective impact of trace elements, which removes excess fluid from the cells lining thus, already at this level of treatment partially removes edema and thereby frees the patency of the anastomoses natural, facilitates tissue penetration of antibacterial components and has a strong anti-inflammatory, decongestant, allergen action

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## SUBTHRESHOLD CONDITION IN MOSFET

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### ABSTRACT

Sub-threshold conduction is an important consideration when dealing with modern devices, especially due to the trend towards increasingly smaller device sizes. Shorter channels have adverse effects on sub-threshold swing, affecting device operation in this region. Analog designers would like a smooth and accurate model in order to properly utilize this highly efficient operating region, while digital designers would prefer to understand methods to minimize channel conduction when a device is in sub-threshold. This paper will review previously published works that discuss analytical models for different sub-threshold concerns, including short-channel effects and the effects due to barrier-lowering. Experimental data is also presented which verifies some of these selected models. Finally, areas for further research into this operating region will be presented.

### INTRODUCTIONS

Now a days the sub-threshold region of MOSFETs is a part of interest for both analog and digital designers sub-threshold region is where the transistor operation in weak inversion mode i.e. a bit below threshold voltage ( $V_{GS} < V_T$ ). Working at this region is useful for systems that should work at low voltages around 1V. sub-threshold operation has several desirable characteristics, there are several benefits of sub-threshold region like In analog applications, sub-threshold gives high gain, and in digital applications, it can give the high ON/OFF ratio. The main benefit working at this region is that the output current is related exponentially with the input voltage rather than the quadratic relationship to the input voltage in saturation region. This increases the trans-conductance of the MOSFET and so getting higher gain. It is hard to say where this region start for sure but a 50mV less than the threshold voltage is good.

### THEORY

Sub-threshold conduction is characterized by a current flow in the case when ( $V_{GS} < V_T$ ). Generally the current-voltage relationship which is used in simple design predicts zero current when ( $V_{GS} < V_T$ ), but the drain current ( $I_D$ ) is not practically be zero when ( $V_{GS} < V_T$ ). Fig. 1 shows a comparison between the ideal characteristics and the sub threshold characteristics.

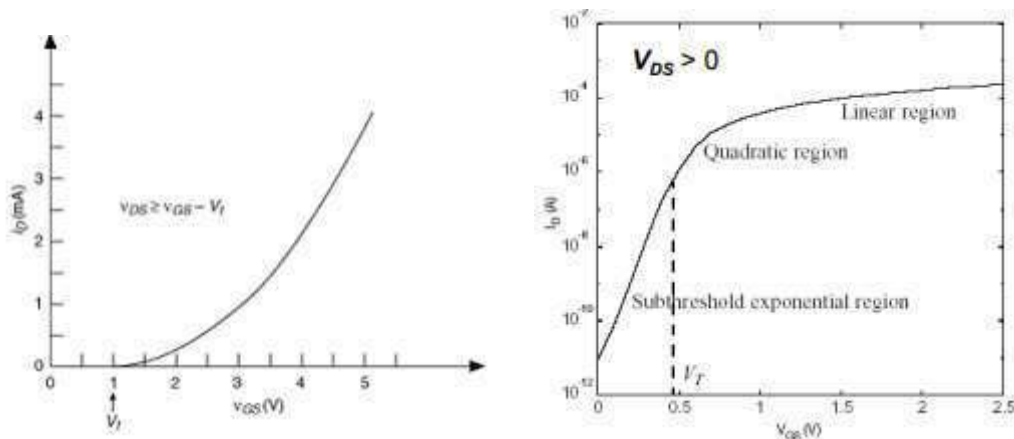
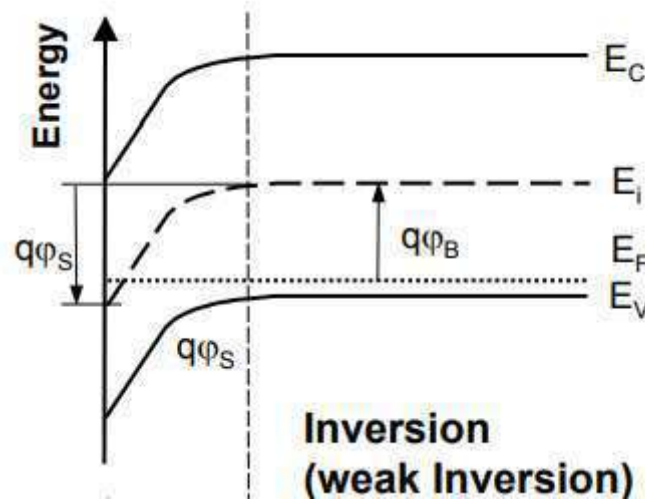


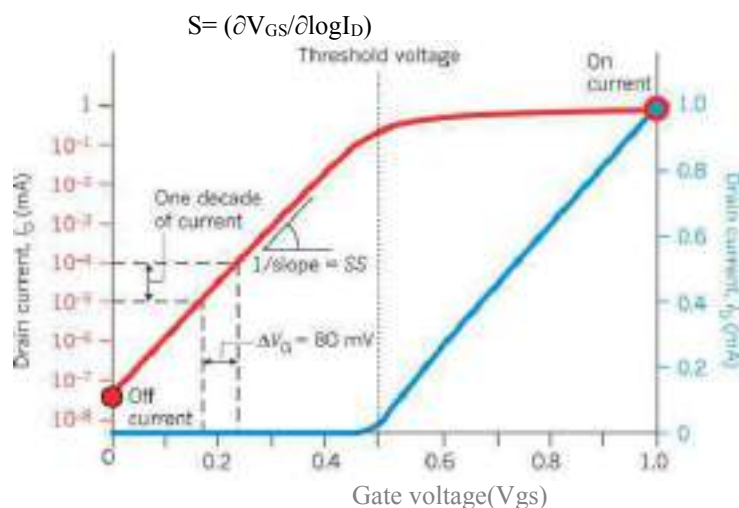
Fig. 1 comparison between the super-threshold characteristics and the sub-threshold characteristics.

The sub-threshold condition occurs when MOSFET is biased in weak inversion mode, Fig. 2 shows the energy-band diagram of a MOS structure with a p-type substrate biased so that  $\phi_s < 2\phi_B$ , due to this biasing the Fermi level comes closer to the conduction band than that of the valence band at the interface between the gate-substrate interface and at the interfaces the semiconductor develops the characteristics of a lightly doped n-type material and small amount of conduction will occurs and this conduction is due to the diffusion of minority carriers in the n-channel.



**Fig. 2 shows the energy-band diagram of a MOS structure with a p-type substrate in weak inversion mode.**

An important parameter when discussing sub-threshold conduction is called sub-threshold slope. The sub-threshold slope  $S$  is an important parameter to study about the sub-threshold conduction and It is defined as the amount of gate voltage required to change the drain current ( $I_D$ ) by 1-decade. Fig. 3 shows the sub-threshold slope in sub-threshold condition with respect to  $V_{GS}$



**Fig. 3 shows the sub-threshold slope in sub-threshold condition with respect to  $V_{GS}$**

For  $V_T \sim 26$  mV (room temperature) and the ideal case of  $n=1$ , the ideal sub-threshold slope for MOSFETs is  $\sim 60$  mV/decade. However, the feasible slopes are around 70–80 mV/decade. Furthermore, as temperature increases, so does  $V_T$  and the sub-threshold slope.

Sub-threshold slope is a very crucial parameter which represent ON-OFF switching capability of



MOSFET. Larger values of Sub-threshold slope would implies better  $I_{ON}/I_{OFF}$  due to this power dissipation will reduces.

The Sub-threshold slope is also defined as the reciprocal of the Sub-threshold swing:-

$$SS = (\partial \log I_D / \partial V_{GS})^{-1}$$

This implies that to get better  $I_{ON}/I_{OFF}$  Sub-threshold swing must be smaller.

### FACTOR AFFECTING THE SUB-THRESHOLD SWING

#### 1. DOPPING

Fig. 3 shows that SS decreases with increasing doping this takes place as the doping is increases the effective conduction path shift towards the gate, which leads to better control on the gate over current conduction. Thus, a MOSFET with higher doping behaves as a better switch. This result can also be confirmed by the  $I_{ON} / I_{OFF}$  ratios which increase with an increase in channel doping.

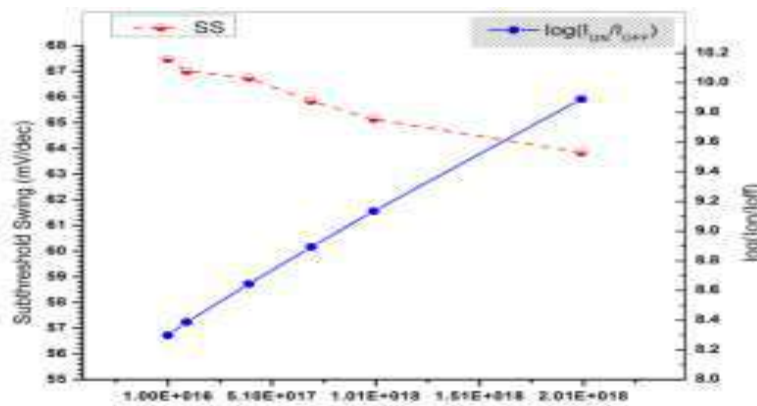


Fig. 3 shows that SS decreases with increasing doping

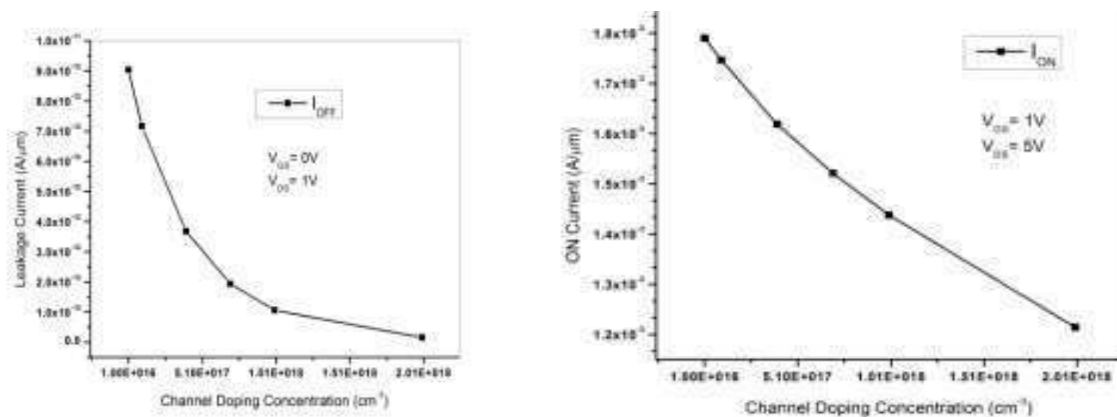
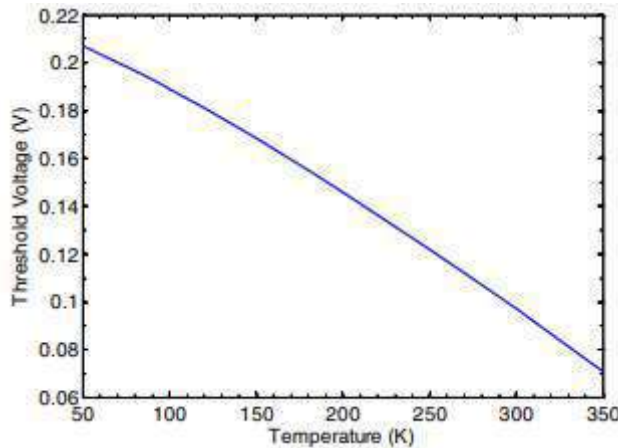


Fig. 4 shows the behaviour of  $I_{OFF}$  and  $I_{ON}$  with increasing doping

#### 2. TEMPERATURE

At room temperature the ideal value of the SS is 60 mV/dec but as we know that the device actually works on the temperature greater than the ambient temperature due to heat dissipation so the value of SS will be higher as temperature increases and lower down significantly as temperature decreases due to this we can say that the SS is directly proportional to the temperature moreover the threshold voltage increases when temperature decreases. Because, when temperature decreases carriers in the channel become freeze. Hence higher gate voltage is required to invert the channel. Therefore, subthreshold drain current can be increased by lowering the temperature.



**Fig. 4 shows the behaviour of threshold voltage with respect to the temperature(K)**

**3. SUBSTRATE BIASING**

As the substrate biasing is applied then due this substrate biasing the SS is increasing and hence threshold voltage decreases.

**MOSFET AMPLIFIER OPERATION IN SUB THRESHOLD REGIME**

The benefit of operating the MOSFET transistor in the subthreshold region is that the transistor input capacitance in the subthreshold region is much less than that of the superthreshold region. On the other hand, the input capacitance in the superthreshold operation is dominated by the gate-oxide capacitance. Due to the smaller input capacitance and the lower-supply voltage in the subthreshold region, the power consumption will be much less than that in the superthreshold region. The subthreshold region operation was investigated and utilized especially in digital-circuit applications.

The following Equation is the current-voltage relationship for the sub-threshold transistor:-

$$i_{sub} = I_0 e^{\frac{v_{GS} - V_{th0} - \gamma V_{SB} + \eta V_{DS}}{nV_T}} \left( 1 - e^{-\frac{v_{DS}}{V_T}} \right) \dots\dots\dots(1)$$

Where  $I_0 = \mu_0 C_{ox} \left( \frac{W}{L} \right) V_T^2 e^{1/\gamma}$

where W and L are the transistor channel width and length, respectively,  $\mu_0$  is the electron mobility at low electric fields,  $C_{ox}$  is the gate-oxide capacitance per unit area,  $V_T$  is the thermal voltage and is given by  $V_T = kT/q$  where k is Boltzmann's constant, T is the ambient temperature, and q is the electronic charge, n is the subthreshold swing factor,  $\gamma$  is the linearized body-effect coefficient,  $\eta$  is the drain-induced barrier lowering (DIBL) coefficient, and  $V_{th0}$  is the threshold voltage at zero source-to-substrate voltage. If the body-effect coefficient and the drain-induced barrier lowering (DIBL) coefficient are neglected, then Eq. 1 can be written simply as:-

$$i_{sub} = I_0 e^{\frac{v_{GS} - V_{th}}{nV_T}} \left( 1 - e^{-\frac{v_{DS}}{V_T}} \right) \dots\dots\dots(2)$$



If the drain-to-source voltage,  $v_{DS}$  is larger than  $3V_T$ , then we can consider the factor  $e^{-v_{DS}/V_T}$  to be much less than 1, and thus Eq. 2 can be written as:-

$$i_{sub} = \mu_0 C_{ox} \left( \frac{W}{L} \right) V_T^2 e^{1.8} e^{\frac{v_{GS} - V_{th}}{nV_T}} \dots\dots\dots(3)$$

**SMALL SIGNAL ANALYSIS OF SUB-THRESHOLD AMPLIFIER**

Lets assume the net applied gate voltage is  $v_{GS} = V_{GS} + v_{gs}$ .

where we have adopted the convention that the voltages or currents with small symbols and large subscripts refer to total voltages or currents and those with capital symbols and subscripts refer to pure dc values and those with small symbols and subscripts refer to pure ac values . In this case, the total value of the subthreshold leakage current will be equal to

$$i_{subt} = \mu_0 C_{ox} \left( \frac{W}{L} \right) V_T^2 e^{1.8} e^{\frac{V_{GS} + v_{gs} - V_{th}}{nV_T}}$$

where  $i_{subt}$  is the total (dc+ac) subthreshold current. Expressing the exponential term  $e^{v_{gs}}$  in a Taylor-series expansion, we obtain

$$i_{subt} = \mu_0 C_{ox} \left( \frac{W}{L} \right) V_T^2 e^{1.8} e^{\frac{V_{GS} - V_{th}}{nV_T}} \left( 1 + \frac{v_{gs}}{nV_T} + \left( \frac{v_{gs}}{nV_T} \right)^2 + \left( \frac{v_{gs}}{nV_T} \right)^3 + \dots\dots \right)$$

For small ac values of the gate-to-source voltage; that is when  $v_{gs} \ll nV_T$ , we can neglect the second and higher-order terms in the Taylor-series expansion and thus the total subthreshold current,  $i_{subt}$  can be expressed as the sum of a dc current and an ac small-signal current of the first order as follows:-

$$i_{subt} = I_{sub} + i_{sub} \dots\dots\dots(4)$$

$$= \mu_0 C_{ox} \left( \frac{W}{L} \right) V_T^2 e^{1.8} e^{\frac{V_{GS} - V_{th}}{nV_T}} \left( 1 + \frac{v_{gs}}{nV_T} \right) \dots\dots\dots(5)$$

$$= I_{sub} + \frac{I_{sub}}{nV_T} v_{gs} \dots\dots\dots(6)$$

$$\therefore i_{subt} = I_{sub} + g_m v_{gs} \dots\dots\dots(7)$$



where  $g_m$  represents the transconductance of the subthreshold transistor and is given by:-

$$g_m = \frac{I_{sub}}{nV_T} \dots\dots\dots(8)$$

The term small-signal needs to be more clarified. In fact, the higher-order terms such as

$$\left(\frac{v_{gs}}{nV_T}\right)^2 \text{ and } \left(\frac{v_{gs}}{nV_T}\right)^3 \dots$$

etc can be neglected only if the ac small-signal voltage,  $v_{gs}$  is less than one tenth the value of  $nV_T$ . Depending on the values of  $n$  and  $V_T$ , the maximum amplitude of the ac gate-to-source voltage for linear operation can be determined. This is less than its counterpart in the superthreshold device where the maximum permissible value for  $v_{gs}$  is dictated by the following inequality:-

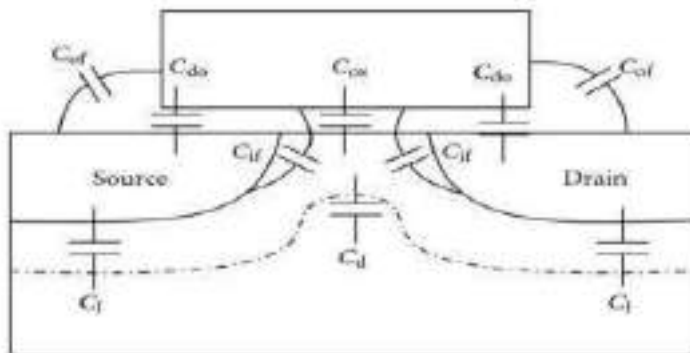
$$v_{gs} \ll 2(V_{GS} - V_{th})$$

There is one drawback of operating MOSFET in sub-threshold region, the value of  $g_m$  of the subthreshold transistor is much less than that of the conventional MOSFET device. This also comes to no surprise because the subthreshold current is much less than the drain current in the superthreshold region. So, we can expect that the voltage gain of the subthreshold transistor amplifier is less than that of the superthreshold transistor amplifier for the same load.

**FUTURE SCOPE**

In the subthreshold region, the transistor input capacitance is less than that of strong inversion operation. The transistor input capacitance ( $C_i$ ) in subthreshold, is a combination of intrinsic (oxide capacitance( $C_{ox}$ ) and depletion capacitance ( $C_d$ )) and parasitic (overlap capacitance ( $C_{do}$ ), fringing capacitances( $C_{if}$ ,  $C_{of}$ )) of a transistor (Figure 1) and is given by :-

$$C_i = \text{series } (C_{ox}, C_d) \parallel C_{if} \parallel C_{of} \parallel C_{do}$$



In contrast, the input capacitance in strong inversion operation is dominated by the oxide capacitance. Due to the smaller capacitance and lower supply voltage (< threshold voltage of the transistor), digital subthreshold circuits consume less power than their strong inversion counterpart at a particular frequency of operation. Sub-threshold circuits can minimize energy for computations executed during the low-performance slots. This application of sub-threshold can be used in high-performance microprocessors, cell phones etc.



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## **FEATURES OF THE COURSE OF ENDOMETRIAL CANCER (CLINIC, TREATMENT, PROGNOSIS)**

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### **RESUME**

*Endometrial cancer ranks sixth in the structure of cancer incidence in women, being an important public health problem in almost all countries. In the structure of the incidence of malignant neoplasms in women, endometrial cancer occupies the sixth place, accounting for 5.3% of all tumors. Survival of patients with endometrial cancer with metastases is dependent on the stage, depth of tumor invasion and treated with the use of neoadjuvant chemotherapy and subsequent radical surgery: so indicators five-year relapse-free and overall survival was 79.6 percent and 87.5%, respectively in patients with endometrial cancer stages IB2 – IIIB, which is about 20% higher than among patients who underwent only radiation combined therapy.*

**KEYWORDS-** *Endometrial cancer, chemotherapy, treatment, malignancy.*

### **RELEVANCE OF THE PROBLEM**

Endometrial cancer ranks sixth in the structure of cancer incidence in women, being an important public health problem in almost all countries. In the structure of the incidence of malignant neoplasms in women, endometrial cancer occupies the sixth place, accounting for 5.3% of all tumors. In 2018, 569,847 patients with this disease were identified worldwide, which accounted for 3.2% of the total number of diagnosed malignant tumors. 311,365 women died from SEM [1; 3; 8].

According to leading oncogynecologists, at the present stage, there are two multidirectional strategies for solving the problem of cervical cancer. The first of them involves the introduction, promotion and improvement of methods for active detection of patients with precancerous conditions and early stages of SEM, the second, no less important, is associated with improving the

effectiveness of treatment of patients with locally advanced forms of this disease.

At the present stage of development of the healthcare system, there are a number of obstacles, both organizational and economic, that hinder the further dissemination and promotion of this method [10]. Despite the fact that cytological screening has been used for several decades, recently there has been an increase in the number of newly identified patients with locally advanced forms of SEM.

The improvement of the technical base and the use of new aggressive radiation therapy regimens have significantly improved the results of treatment of patients with locally advanced SEM. An increase in the life expectancy of patients led to an increase in the frequency радиоиндуцированных первично множественных of radioinduced primary multiple метастазов malignant tumors [5; 7; 8]. This is due to the fact that during radiation exposure, a



woman's body is exposed to a certain carcinogenic effect, which in the future may lead to the development of new malignant tumors or leukemia. The frequency of primary multiple malignancies that develop after radiation therapy is 5-26% [7; 8].

The dissatisfaction of oncogynecologists with the results of combined radiation therapy in locally advanced SEM has led to the fact that over the past few decades, the effectiveness of chemotherapy has been actively studied, the introduction of which marked the opening of a new era in the treatment of such patients [9; 10]. Some authors have shown that the use of cytostatics reduces the size of the neoplasm, which increases the effectiveness of radiation therapy. In addition, due to the systemic distribution of drugs, it is possible to eliminate

lymphogenic and hematogenic micrometastases [9; 10]. Despite the success achieved in the treatment of patients with locally advanced SEM, the relapse rate remains high, reaching 35%, and side effects associated with radiation remain [7; 9; 10]. Currently, the five-year survival rate for IB2 stage of the disease is about 80%, IIB-65%, III-40% [8; 10].

Materials and methods of research. Distribution of the studied patients by stage endometrial cancer is shown in tables 1 and 2. In all groups, patients with stage IIB of the disease prevailed, IB2 and IIIB stages were slightly less common. In general, among the studied patients, PEM the ratio of patients with different stages was approximately the same.

**Table 1**  
Distribution by stages of the main group of patients

Stage endometrial cancer	Number of patients		Metastases in Pelvic metastases	
	N	%	n	%
<b>IB2</b>	13	25	2	3.8
<b>IIB</b>	21	40.3	6	11.5
<b>IIIB</b>	18	34.6	3	5.7
<b>Total</b>	52	100	11	21.1

**Table 2**  
Distribution by stages of patients in the comparison group

Stage endometrial cancer	Number of patients	
	n	%
<b>IB2</b>	12	26,1
<b>IIB</b>	21	45,6
<b>IIIB</b>	13	28,3
<b>Total</b>	46,100.0	

The youngest patient included in the study was 26 years old, and the oldest was 67 years old. In the main group of patients, the average age was

42.1±10.5 years. 16 patients (7.7%) were younger than 30 years, 22 (10.5%) were older than 60 years. The age distribution of patients in all groups studied was approximately the same (Table 3).

**Table 3**  
Age distribution of the studied patients.

Age group	Number of patients			
	Main group =52		Comparison group =46	
	n	%	n	%
<b>Up to 30</b>	3	5,7	2	4,3
<b>30-39</b>	10	19,2	10	21,7
<b>40-49</b>	25	48,1	22	47,8
<b>50-59</b>	13	25	12	26,1
<b>60 and more</b>	than 6	11.5	5	10.8
<b>Total</b>	52	100.0	46	100.0



As can be seen from Table 3, the largest number of patients were in the age range of 30-39 years (55 women-56.1%), 40-49 years (22 patients, 22.4%) and 50-59 years (15 patients, 15.3%). There were 72 patients in the reproductive period (73,4%), 26 (26,5%) the patients were in the first and postmenopausal stages. Among the comparison

group patients, the average age was 43.7±11.2 years. 5 patients (5.1%) were younger than 30 years, 11 patients (11.2%) were older than 60 years. Patients in the age range 30-49 years prevailed (67 women – 68.3%).

We did not observe primary multiple synchronous malignant neoplasms.

**Table 4****Concomitant somatic diseases in operated patients**

Concomitant diseases	Main group n=52		Comparison group n=46	
	abs	%	abs	%
CHD Hypertension	13	25	11	23.9
Bronchial asthma	2	3.8	0	0
GI, chronic cholecystitis	3	5.7	5	10.8
Gastric ulcer and 12-P. K.	1	1,9	2	4,3
Chronic pyelonephritis	18	34,6	12	26,1
<b>Concomitant gynecological diseases</b>				
Uterine fibroids	8	15.3	5	10.8
Ovarian tumor	3	5,7	4	8,6

Thus, in the groups of patients who underwent radical surgery after neoadjuvant chemotherapy, there were no significant differences in the age composition of patients, as well as in the stages of SEM.

The most frequent clinical manifestation of the disease in patients of all the studied groups was abnormal vaginal discharge, which was observed in 68 patients (69.3%), and in 19 (19.3%) cases, the discharge was abundant and had the character of periodically recurring bleeding. 26 patients (26.5%) had pain in the lower abdomen, 29 (29.6%) had menstrual irregularities, and 21 (21.5%) had serous or purulent vaginal discharge. 57 patients (58.1%) had no complaints at the time of treatment. 75 patients had a history of cervical erosion, 37 (37.6%) women had no regular visits to the gynecologist.

MRI revealed the presence of a tumor focus in all the SEM patients studied (Fig. 1). MRI images of the pelvis of a patient with SEM stage IB2 show a soft tissue formation located in the anterior lip of the cervix (Fig. 2.6 A, B), with a pronounced restriction of diffusion (Fig. 2.6 C, D), without signs of spreading to the parameters. Neoplasms were characterized by irregular shape and indistinct uneven contours.

## CONCLUSION

In all groups, patients with stage IIB of the disease prevailed, IB2 and IIIB stages were slightly less common. In general, among the studied patients, PEM the ratio of patients with different stages was approximately the same.

The youngest patient included in the study was 26 years old, and the oldest was 67 years old. In the main group of patients, the average age was 42.1±10.5 years. 16 patients (7.7%) were younger than 30 years, 22 (10.5%) were older than 60 years.

The majority of patients were aged 30-39 years (55 women-56.1%), 40-49 years (22 patients, 22.4%) and 50-59 years (15 patients, 15.3%). There were 72 patients in the reproductive period (73,4%), 26 (26,5%) the patients were peri- and postmenopausal. Among the comparison group patients, the average age was 43.7±11.2 years. 5 patients (5.1%) were younger than 30 years, 11 patients (11.2%) were older than 60 years. Patients in the age range 30-49 years prevailed (67 women – 68.3%).

The most frequent clinical manifestation of the disease in patients of all the studied groups was abnormal vaginal discharge, which was observed in 68 patients (69.3%), and in 19 (19.3%) cases, the discharge was abundant and had the character of periodically recurring bleeding. 26 patients (26.5%) had pain in the lower abdomen, 29 (29.6%) had menstrual irregularities, and 21 (21.5%) had serous or purulent vaginal discharge. 57 patients (58.1%) had no complaints at the time of treatment. 75 patients had a history of cervical erosion, 37 (37.6%) women had no regular visits to the gynecologist.

MRI revealed the presence of a tumor focus in all the patients with SEM studied. The tumor volume parameters determined by MRI data in stage IB2 were from 3.0 to 73.3 cm<sup>3</sup>, on average- 36.6±17.0 cm<sup>3</sup>, IIB – from 32.2 to 103.1 cm<sup>3</sup>, on



average-64.9±19.9 cm<sup>3</sup>, IIIB - from 32.2 to 145.1cm<sup>3</sup>, on average-72.3±23.6cm<sup>3</sup>.

It was found that in most patients with SEM (82.4%) of stage IB2, the volume of neoplasms did not exceed 50cm<sup>3</sup>. In total, 6 patients (6.1%) without parametric fiber infiltration had a tumor size above 50cm<sup>3</sup>.

Pathomorphological examination revealed that the histotype of tumors in all cases corresponded to squamous cell carcinoma. Immunohistochemical study allowed to determine the expression of markers p16, Ki-67, p53, p63, CEA, Ki-67 (Figs. 2.8, 2.9). The immunophenotype of squamous cell carcinoma was indicated by positive expression of p16 and p63, negative expression of CEA, and a high proliferative index (Ki-67 in all cases, more than 50%).

Patients in the main group underwent complex treatment, including neoadjuvant chemotherapy followed by radical surgery and / or chemoradiotherapy. Depending on the method of neoadjuvant chemotherapy, three subgroups were identified.

Subgroup 1: 26 patients who received drug treatment using two courses of intravenous infusion of cytostatics.

Subgroup 2: 17 patients who underwent one course of neoadjuvant chemotherapy with a combination of intravenous ierentgenangiosurgical intra-arterial administration of chemotherapy drugs in combination with embolization of the tumor arteries.

Subgroup 3: 9 patients who underwent 2 courses of chemotherapy, the first of which consisted of a systemic infusion of cytostatics, the second-a combination of intravenous and X-ray angiosurgical intra-arterial administration of chemotherapy drugs in combination with embolization of the tumor arteries.

Patients of the first subgroup underwent two courses of chemotherapy. Cytostatics were administered sequentially for one day. Against the background of standard premedication, including dexamethasone 20 mg intramuscularly for 12 and 6 hours, an H1-histamine receptor blocker (diphenhydramine) intravenously for 30 minutes, an H2-histamine receptor blocker (kvamatel, zantak) 30 minutes before the introduction of cytostatics, paclitaxel was administered intravenously at a dose of 175 mg/m<sup>2</sup>. Then, after hydration with 0.9% NaCl solution at a dose of 400 ml, carboplatin (AUC6) was administered intravenously. The dosage was calculated using the Calvert formula:  $AUC \times (CC + 25)$ , where CC is the creatinine clearance.

A second course of chemotherapy was performed according to a similar scheme after 21 days.

The second subgroup consisted of female patients, most of whom had different intensity of spotting from the genital tract. After hemostatic and corrective measures, they underwent one course of

chemotherapy according to the following scheme: the first day – intravenous infusion of paclitaxel at a dosage of 175mg/m<sup>2</sup> and carboplatin at a dosage of 1/2 AUC 6 against the background of standard premedication and the use of antiemetics. The second day – intra-arterial administration of carboplatin at a dosage of 1/2 AUC 6 in combination with uterine artery embolization.

## CONCLUSIONS

1. The highest incidence of endometrial cancer was found in the age group of 30-39 years with the largest number of patients in the reproductive period.

2. The use of neoadjuvant chemotherapy in patients with SEM stages IB2 – IIIB allowed to achieve complete tumor regression in 5.7% of cases, partial-in 83.3%. Radical operations were performed in 91.9% of cases.

3. Limiting the risk of adverse prognostic factors with careful dynamic monitoring of the tumor process is one of the main conditions for using multicomponent treatment of patients with SEM. The technological basis for monitoring is the integration of MRI and ultrasound into diagnostic standards.

4. Patients with endometrial cancer with detected metastases should be treated with special (chemo, chemoradiotherapy with subsequent radical operations), as this leads to an improvement in the results (in our study by more than 20%) and an increase in the life expectancy of these patients.

5. Survival of patients with endometrial cancer with metastases is dependent on the stage, depth of tumor invasion and treated with the use of neoadjuvant chemotherapy and subsequent radical surgery: so indicators five-year relapse-free and overall survival was 79.6 percent and 87.5%, respectively in patients with endometrial cancer stages IB2 – IIIB, which is about 20% higher than among patients who underwent only radiation combined terapiya.

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## **A STUDY ON STRESS MANAGEMENT OF WORKING WOMEN IN COIMBATORE CITY**

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### **ABSTRACT**

*In the modern world, women are playing major and a various role in their family as well as in the work place. From being a homemaker, now they have leave their footprints in each and every field of work. In the work place, they have gone through many stress but they pursue their dream career in the new generation. More conflicts arises in the working place. Stress is unavoidable on every part of employees. Majority of women has been trying to find solution to relieve from stress. It is a growing problem in work place and there are various techniques to cope up with them.*

**KEY WORDS:** *Stress, workplace stress, personal and family problems, techniques.*

### **INTRODUCTION**

The word 'stress' has been derived from the Latin word 'stringere' which means hardship, strain, adversity or affliction. It refers to anxiety, frustration, conflict, pressure.

It reflects in increased heart rate, a rise in blood pressure, muscular tension, irritability and depression."

Stress management is need for one who is suffering from high level of stress. Stress management refers to the controlling one's level of stress. Finding one's stress can help to find out what is causing stress and how much stress one can feel. Then one can take steps to reduce the stress or handle it in a better way.

### **NEED FOR THE STUDY**

Working women had more stress than man and non-working women. Effective stress management helps one to break the hold stress on their life, so they can be happier, healthier and more productive. The ultimate goal of the study is to give a balanced life, with time for work, relationship, relaxation and meet challenges upon.

### **STATEMENT OF THE PROBLEM**

The present problem is to study on stress management of working women. In the modern era, most of the working women are experiencing more stress at work. Balancing of work and family life became difficult for every women employee in any



sector. It creates a massive problem. Stress Management can enable employees to improve their family and personal life. Hence the study is aimed to find out the factors that causing stress and to enable with them proper stress management techniques.

### OBJECTIVES

- To know the source of stress of working women.
- To analyse the impact of stress of working women.
- To give the different ways in which the working women manage stress.

### RESEARCH METHODOLOGY

#### Research design:

It is a method or procedure used to collect and analyse the variables. Descriptive research design has been followed in the study.

#### Sample size:

The sample size taken for the present study is 150 respondents.

#### Sampling method:

Convenience sampling method was used for selecting the respondents.

### METHODS OF DATA COLLECTION

#### Sources of data:

- Primary data
- Secondary data

#### Primary data:

The present study is based on primary data. It is collected through questionnaire.

#### Secondary data:

Secondary data was collected from books, magazines and various websites for the study.

### Tools for analysis:

The tools used for analysis are

- Simple percentage analysis
- Chi – square test
- Anova test
- Rank analysis

### Limitations of the study:

- The investigator intended to cover only few area of stress relevant to the proposed study.
- As the study was done within a limited time, cannot able to select the large sample for study.
- The time cost factors in collected the responses as well as in conducting the research study would be the limiting factor.

### REVIEW OF LITERATURE

Julka and Mathur (2017) they discussed variables influencing work-life balance. It included work-family conflict, women in the various role, career advancement, work stress and child care. For maintaining work-life balance, some strategies and skills like planning, organising, setting limits and fulfilling well-balanced life both professionally and personally were suggested.

### ANALYSIS AND INTERPRETATION

#### Simple Percentage Analysis

#### Age:

Table 1.1 describes the age of the respondents. It is categorized as below 25 years, 26-30 years, 31-35 years and above 35 years.

**Table 1.1: Age of the respondents**

S. No.	Age	Respondents	
		Number	Percentage (%)
1	Below 25 years	32	21.3
2	26-30 years	59	39.3
3	31-35 years	37	24.7
4	Above 35 years	22	14.7
	<b>Total</b>	<b>150</b>	<b>100</b>

Sources: Primary data

### Interpretation

Table 1.1 shows that out of the total respondents taken for the study, 32 (21.3%) respondents belong to the group of below 25 years, 59 (39.3%) respondents belong to the age group of 26-30 years, 37 (24.7%) respondents belong to the age group of 31-35 years and 22 (14.7%) respondents are above 35 years.

### Inference

It is concluded that majority (39.3%) of the respondents belong to the age group of 26-30 years.

### Level of stress

Table 1.2 describes the level of stress of the respondents. It is categorized as very high, high, moderate and low.



**Table 1.2: Level of stress of the respondents**

S. No.	Level of stress	Respondents	
		Number	Percentage (%)
1	Very high	34	22.7
2	High	65	43.3
3	Moderate	48	32
4	Low	3	2
	<b>Total</b>	<b>150</b>	<b>100</b>

Sources: Primary data

**Interpretation**

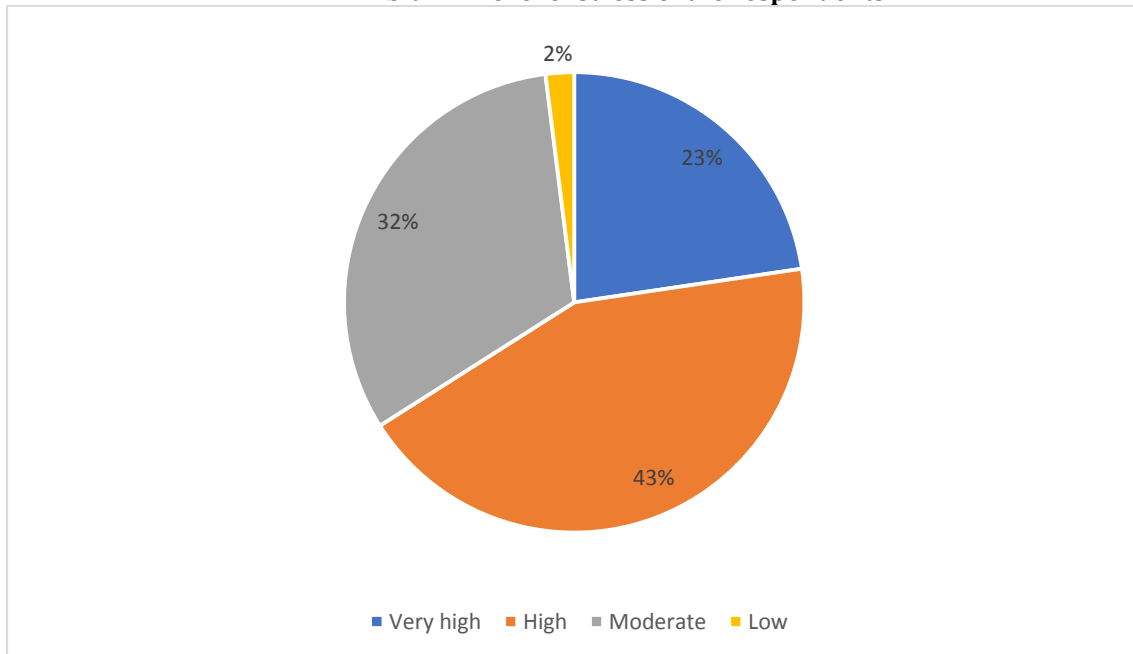
Table 1.2 shows that out of the total respondents taken for the study, 34 (22.7%) respondents stress were very high, 65 (43.3%) respondents stress were high, 48 (32%) respondents

stress were moderate and 3 (2%) respondents stress were low.

**Inference**

It is concluded that majority (43.3%) of the respondents stress were high.

**Exhibit 1.2: Level of stress of the respondents**



**Manage stress at work:** Table 1.3 describes how the persons manage stress at work. It is

categorized as exercise, meditation/yoga, get enough sleep and relaxation.

**Table 1.3: Manage stress at work of the respondents**

S. No.	Manage stress at work	Respondents	
		Number	Percentage (%)
1	Exercise	16	10.7
2	Meditation/Yoga	49	32.7
3	Get enough sleep	54	36
4	Relaxation	31	20.7
	<b>Total</b>	<b>150</b>	<b>100</b>

Sources: Primary data

**Interpretation:**

Table 1.3 shows that out of the total respondents taken for the study, 16 (10.7%) respondents were doing exercise, 49 (32.7%) respondents were doing meditation/yoga, 54 (36%) respondents were getting enough sleep and 31

(20.7%) respondents were relaxed when they were stressed.

**Inference:**

It is concluded that majority (36%) of the respondents were getting enough sleep when they were stressed.

**Chi-Square Analysis:****Relationship between age and causes of stress at work of the respondents:****Table 1.4****Relationship between age and causes of stress at work of the respondents**

Age	Causes of stress at work				Total
	Work load	Work timings	Meeting targets	Performance anxiety	
Below 25 years	8	10	7	7	32
26-30 years	8	24	22	5	59
31-35 years	10	17	6	4	37
Above 35 years	11	3	6	2	22
<b>Total</b>	<b>37</b>	<b>54</b>	<b>41</b>	<b>18</b>	<b>150</b>

To find out the association between age and causes of stress at work of the respondents, chi-square test is used and result is given below.

**Hypothesis:**

There is no significant relationship between age and causes of stress at work of the respondents.

**Chi-square test**

Factor	Calculation value	Df	Table value	Remarks
Age	20.963 <sup>a</sup>	9	16.92	Rejected

**Interpretation:**

It is clear from the above table show that, the calculated value of chi-square is less than the table value. Hence the hypothesis is rejected stating ANOVA

that there is significant relationship between age and causes of stress at work of the respondents

**Table 1.5 Causes of stress ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Headache	Between Groups	4.735	3	1.578	1.076	.362
	Within Groups	178.924	122	1.467		
	Total	183.659	125			
Stomach pain	Between Groups	3.833	3	1.278	2.222	.088
	Within Groups	83.960	146	.575		
	Total	87.793	149			
Body pain	Between Groups	1.934	3	.645	1.179	.320
	Within Groups	79.859	146	.547		
	Total	81.793	149			
Hair fall	Between Groups	15.717	3	5.239	8.349	.000
	Within Groups	91.616	146	.628		
	Total	107.333	149			
Skin problem	Between Groups	12.964	3	4.321	7.850	.000
	Within Groups	80.370	146	.550		
	Total	93.333	149			
Nervousness	Between Groups	5.554	3	1.851	1.724	.165
	Within Groups	156.740	146	1.074		
	Total	162.293	149			
Tension	Between Groups	17.175	3	5.725	8.012	.000
	Within Groups	104.319	146	.715		



	Total	121.493	149			
Breathing problem	Between Groups	1.279	3	.426	.590	.622
	Within Groups	105.415	146	.722		
	Total	106.693	149			
Trouble in sleeping	Between Groups	1.279	3	.426	.590	.622
	Within Groups	105.415	146	.722		
	Total	106.693	149			

**Interpretation:**

From the above table, it is based on the significance level of trouble in sleeping is .622, the significance level of breathing problem is .622, the significance level of headache is .362, the significance level of body pain is .320, the significance level of nervousness is .165,

the significance level of stomach pain is .088, the significance level of hair fall is .000, the significance level of skin problem is .000 and the significance level of tension is .000.

**Inference:**

Majority of the significance level .622 belongs to trouble in sleeping.

**Rank Analysis:**

Most affected persons due to distress by the respondents:

**Table 1.6: Most affected persons due to distress by the respondents**

Factors	1	2	3	4	5	6	7	8	Total score	Ranks
<b>Children</b>	70 (560)	16 (112)	17 (102)	12 (60)	11 (44)	3 (9)	3 (6)	18 (18)	150 (911)	<b>1</b>
<b>Spouse</b>	19 (152)	38 (266)	19 (114)	11 (55)	9 (36)	13 (39)	22 (44)	19 (190)	150 (725)	<b>4</b>
<b>Friends</b>	13 (104)	30 (210)	50 (300)	14 (70)	12 (48)	15 (45)	12 (24)	4 (4)	150 (805)	<b>2</b>
<b>Relatives</b>	7 (56)	11 (77)	11 (66)	41 (205)	33 (132)	15 (45)	18 (36)	14 (14)	150 (631)	<b>5</b>
<b>Parents</b>	17 (136)	26 (182)	16 (96)	31 (155)	31 (124)	12 (36)	2 (4)	15 (15)	150 (748)	<b>3</b>
<b>Other family members</b>	4 (32)	8 (56)	19 (114)	19 (95)	17 (68)	40 (120)	23 (46)	20 (20)	150 (551)	<b>6</b>
<b>Sub ordinates</b>	3 (24)	15 (105)	9 (54)	10 (50)	17 (68)	23 (69)	44 (88)	29 (29)	150 (487)	<b>8</b>
<b>Co-worker</b>	16 (128)	6 (42)	10 (60)	13 (65)	21 (84)	29 (87)	25 (50)	30 (30)	150 (546)	<b>7</b>

**Interpretation:**

It could be observed from the table 1.6 the most affected persons due to distress has been calculated.

- According to 150 respondents, children is placed as FIRST RANK.
- According to 150 respondents, friends is placed as SECOND RANK.
- According to 150 respondents, Parents is placed as THIRD RANK.
- According to 150 respondents, spouse is placed as FOURTH RANK.
- According to 150 respondents, relatives is placed as FIFTH RANK.
- According to 150 respondents, other family members is placed as SIXTH RANK.
- According to 150 respondents, co-worker is placed as SEVENTH RANK.

- According to 150 respondents, sub ordinates is placed as EIGHTH RANK.

**Inference:**

Majority of the respondent's distress is affected towards the children as the major factor in stress, sub-ordinates is last in ranking.

**Suggestions:**

- The young age working women are more stressed than the middle and aged women.
- The young aged working women can avoid or reduce stress by sharing their problems with their parents, spouse, family members and counsellor.

**CONCLUSION**

Stress is a growing problem in the workplaces now-a-days for working women. An



individual can exhibit the high level of stress through physically, psychologically and behaviourally. It leads to many health problems. Working women generally involved simultaneously in many tasks, juggling between family and work responsibilities, which leads towards stress among them. Stress management helps them to reduce the stress and lead a healthy life.

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## REVIEW ON PAYLOAD DELIVERY DRONE

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### ABSTRACT

Unmanned Aerial Vehicles (UAV) based delivery of goods could become a reality soon. At present drones can be used in a wide range of commercial applications, surveillance, video shooting, border security, etc. UAVs based payload delivery drones can be used to deliver goods from one point to other. The advantages of a Payload delivery Drone system are mainly related to an increased delivery speed, especially in urban cities with traffic, where it is difficult to make deliveries on time. This system also helps to reduce the overall carbon footprint. This Review paper Discuss various works done in this field.

**KEYWORDS:** Quadcopter, UAV, Payload Delivery Drone

### INTRODUCTION

Robotics and Artificial Intelligence are the future. One of the examples of Robotics and Artificial Intelligence systems are unmanned Aerial Vehicles. UAVs can be used for various purposes like monitoring, filming etc. One of the examples that we have discussed in this paper is Payload Delivery capabilities of Drone. Companies like Amazon are currently taking advantages of Prime Air, which is a fully autonomous delivery system designed to safely send packages to customers. UPS, Google, and other big companies are also experimenting with delivery drones. Using of such Payload Delivery Drones, reduces the delivery time, possible to reach difficult areas, increases the safety and efficiency of the transportation systems, it also helps to reduce overall

footprints on the environment. Our objective for this paper is to discuss various works done in the field of delivery using drones and find a solution to implement them in real world.

In section II, we have reviewed nine research papers in the field of the quadcopter. Section III 2 is the problem we have identified. In Section IV, we have proposed a solution to the problem identified. Section V and Section VI explains the objective and conclusion of the proposed system

### 1. LITERATURE REVIEW

1. Path planning of an autonomous quadcopter-based delivery system by Athira Krishnan R, Dr. V. R. Jisha and Gokulnath K[1], in the past few decades many plans, and techniques were made to make the



robot navigate the several path so that the time of execution will be minimum, and it will affect the system performance. In this paper they proposed the algorithm which is the combination of sampling based bidirectional RRT algorithm and improved Artificial potential field (APF) algorithm to achieve that goal. Using the proportional position and altitude controller quadcopter is made to traverse the path planned by algorithm. So, the quadcopter is made to plan a path effectively from source point to goal point to Minimum the execution time.[1]

2. Power measurement and modeling of quadcopters on horizontal flight by Kataro Maekawa, Shunsuke Negoro, Hiroyuki Tomiyama, and Ittetsu Taniguchi[2], now-a-days quadcopters are used widely for many purposes and have many promising applications. However, the flight time is very limited due to battery capacity. Therefore, effective power management is very necessary for utilizing power aware flight planning. This paper only focuses on horizontal flight. They developed lightweight voltage and current logger, it records the voltage between terminals and the current from the battery. These data are recorded continuously and given to flight log and power log which are energy modelling and further calculation are made. Also, analysis between the behavior and power consumption is important.[2]

3. Quadcopter flight dynamics by Mohd Khan[3], angular maneuvering scheme along with standard flight operations such as taking-off, landing and hovering is proposed for a quadcopter with flying capability. This is achieved but simultaneously controlling the speed of the four rotors for the quadcopter to attain the correct orientation. The total thrust is determined by using the input of altitude, pitch, and roll angles. According to required thrust, voltage supply is given to adjust RPM. To adjust thrust via voltage supply to give required RPM to perform standard flight operations and to position the quadcopter into certain angular orientation depending on the circumstances of the flight routine. The solution lays the foundation for further use in control the quadcopter. [3]

4. Crowd Monitoring and Payload Delivery Drone using Quadcopter based UAV System by K.V.V.M ani Sai Kumar, M d Sohail, and Dr. Usha Rani. Nelakuditi[4], quadcopters can be used for crowd monitoring and payload delivery drone. The paper discusses the design and implementation of a quadcopter for delivery and surveillance operation using a camera. A quadcopter is an unmanned aerial vehicle (UAV) that has four rotors, and it is capable of vertical take-off and landing at a point. In this paper, a quadcopter having a payload delivery of 500 grams along with a camera is designed using APM 2.5 as a pre-programmed flight controller. It mentioned all the specifications of the components

used for constructing a quadcopter and provides the design calculation.[4]

5. Designing and Implementation of a Multi-purpose Quadcopter by Nadia Nowshin, Hossain, Md. Ahsanul Kabir, Anne, Sumaiya Jannat, and Kafa, Kaniz Fatema[5], the UAV based ting Assistance System for Quadcopter with Deep Reinforcement Lear quadcopters for human welfare have become a major topic of research. The paper explains the design of a microcontroller-based quadcopter that can detect metal and spray fire extinguisher. For the fire extinguisher a flame sensor, a two-channel relay, a DC motor, a bottle, and a hand-made plastic board propeller and to detect metal NE555 Timer IC, two 2.2 $\mu$ F capacitors, a 10 $\mu$ F capacitor, a 47K resistor, a coil made of 26-30 AWG copper wire with 140- 150 turns, and a speaker is used. Arduino UNO is used as a flight controller and MPU 6050 gyro provides stability and navigational information.[5]

6. Navigating Assistance System for Quadcopter with Deep Reinforcement Learning by Tung Cheng Wu, Shau-Yin Tseng, Chin Feng Lai, Chia Yu Ho, and Ying Hsun Lai[6], the paper explains the deep reinforcement learning method for quadcopter to bypass the obstacle on the flying path. The quadcopter navigation function is based on calculating the coordination point and find the shortest straight path and the collision avoidance function is implemented using the deep Qnetwork model. Also, the deep Q-network will help the quadcopter fly up and down to bypass the obstacle. For the experiment, the training environment in Unreal Engine with AirSim plugin is used, and the resulting model can avoid 86% of object obstacles in the strange path.[6]

7. Quadcopter Obstacle Avoidance and Path Planning Using Flood Fill Method by Sushrut Ranade, and P. V. Manivannan[7], unmanned aerial vehicles (UAVs) require advanced path planning to reach the destination point and obstacle avoidance algorithms for navigation. In this paper, the Flood fill method (FFM) was used for navigating an autonomous quadcopter in a simulated environment to complete the task. FFM method is then compared with the traditional potential field method (PFM) in term of parameter such as avoiding random obstacles for variable starting and destination positions, the time required to complete the journey, task and the optimum path selection. FFM works computationally faster than PFM [7]

8. Autonomous Quadcopter for Product Home Delivery by Md R Haque, M Muhammad2, D Swarnaker3, and M Arifuzzaman[8], in this paper we learned about trade-off between maximizing profit and maximizing client's satisfaction in the content of drone service. A simulation study was done to compare drone with different strategies. We have compared some possible drone strategies and



identified common factors that may affect the decision-making process of quadcopter according to their strategies. Future will involve working with multiple drones and different drone strategies as there are project developing air traffic management system and will increase drone's reliability, efficiency, and profitability. [8]

9. On-Drone Decision Making for Service Delivery: Concept and Simulation by Majed Alwateer, and Seng W. Loke[9], in this paper we learned about trade-off between maximizing profit and maximizing client's satisfaction in the content of drone service. A simulation study was done to compare different drone serving strategies. We have considered some possible drone strategies and identified common factors that may affect the decision-making process. Future will involve working with multiple drones and different drone strategies as there are project developing air

traffic management system and will increase drone's reliability, efficiency, and profitability.[9]

## 2. PROBLEM IDENTIFIED

Due to rise in demand for commercial deliveries within cities, companies are facing problem to home delivery because of heavy traffic in road transport. Drones will solve the problem by exploring the transport opportunities in vertical dimension above the road. Drones will be able to reach places which are difficult to reach. For years, companies such as Amazon and Google have been working hard at developing a safe and practical way of utilizing the potential of unmanned aerial vehicles to improve upon their current network of delivery services.

Sr. No.	Title of the paper	Year of publication	Authors	Methodology	advantage
1	Path planning of an autonomous quadcopter-based delivery system	2018	Athira Krishnan R, Dr. V. R. Jisha and Gokulnath K	<ol style="list-style-type: none"> <li>1. Bidirectional RRT is efficient in finding a path between start and goal</li> <li>2. APF uses repulsive force toward obstacle and attractive force toward goal</li> <li>3. Position control reduces the error in position</li> <li>4. Altitude control is used to maintain reference altitude reference</li> </ol>	<ol style="list-style-type: none"> <li>1. Faster than normal map</li> <li>2. Execution time is less</li> </ol>
2	Power measurement and modeling of quadcopters on horizontal	2017	Kataro Maekawa, Shunsuke Negoro, Hiroyuki Tomiyama	<ol style="list-style-type: none"> <li>1. They developed light weight voltage and current logger</li> <li>2. The logger is inserted between battery and quadcopter to record the voltage between battery terminals and the current from battery</li> <li>3. During the horizontal flight, the force nerated by four rotors can be broke down into component</li> </ol>	<ol style="list-style-type: none"> <li>1. Logger will help us to keep record of voltage and current</li> <li>2. Use battery efficiently</li> </ol>
3	Quadcopter flight dynamics	2014	Mohd Khan	<ol style="list-style-type: none"> <li>1.The propeller speed is adjusted to</li> </ol>	<ol style="list-style-type: none"> <li>1. Easy to use as mostly autonomous</li> </ol>



				gain or lose altitude. This feature is used for taking-off or landing-off 2. Another controller is used to increase speed, slow down or turn by adjusting the speed of the certain propeller 3. To control thrust by giving required RPM	2. Less human efforts
4	Crowd Monitoring and Payload Delivery Drone using Quadcopter based UAV System	2018	K.VV.M ani Sai Kumar, M d Sohail, Dr. Usha Rani. Nelakuditi	1. APM 2.5 is used as pre-programmed flight controller 2. In this design 1400kv and propellers are about 1045 3. A quadcopter having a payload delivery of 500 grams along with a camera is designed.	1. The quadcopter can be used to deliver a payload. 2. The quadcopter can be used for surveillance purpose and crowd monitoring
5	Designing and Implementation of a Multi-purpose Quadcopter	2018	Nadia Nowshin, Hossain, Md. Ahsanul Kabir, Anne, Sumaiya Jannat, Kafa, Kaniz Fatema	1. For the fire extinguisher a flame sensor, a two-channel relay, a DC motor, a bottle, and a hand-made plastic board propeller is used. 2. To detect metal NE555 Timer IC, two 2.2 $\mu$ F capacitors, a 10 $\mu$ F capacitor, a 47K resistor, a coil made of 26-30 AWG copper wire with 140-150 turns, and a speaker is used. 3. Arduino UNO is used as a flight controller and MPU 6050 gyro provides stability and navigational information.	1. The quadcopter can be used as either a metal detector or a fire extinguisher. 2. It is a low-cost system and provides accessibility to low-income households. 3.It can be easily upgraded
6	Navigating Assistance System for Quadcopter with Deep Reinforcement Learning	2018	Tung Cheng Wu, Shau-Yin Tseng, Chin Feng Lai, Chia Yu Ho, Ying Hsun Lai	1. Two function to control quadcopter - navigating function and collision avoidance function 2. Navigation	1. The quadcopter will autonomously fly from one point to other without any collision

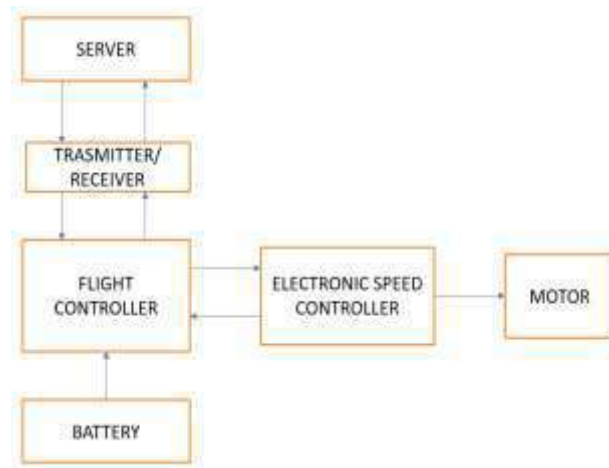


				function is based on calculating the coordination point and find the shortest straight path 3. collision avoidance function is implemented using the deep Q-network model.	
7	Quadcopter Obstacle Avoidance and Path Planning Using Flood Fill Method	2019	Sushrut Ranade, P. V. Manivannan	1. PFM is used for ground agent path planning while FFM is used for maze solving ground robot. 2. In PFM obstacle exert imaginary repulsive force while the target exerts an attractive force on quadcopter	1. FFM takes less time for deciding a path and tracing it as compared to PFM 2. Effectiveness of FFM was more than PFM Avoided all obstacle successfully
8	Autonomous Quadcopter for Product Home Delivery	2014	Md R Haque, M Muhammad <sup>2</sup> , D Swarnaker <sup>3</sup> , M Arifuzzaman	1. Customer will buy product and online company will send confirmation sms 2. Loading will be done of parcel and oordinates will be provided to quadcopter 3. Quadcopter will use google map to reach the destination 4. After reaching the destination and confirmation it will drop the parcel	1. Faster transport 2.Reduce of cost fuel 3. Less human labour 4. Time saving
9	On-Drone Decision Making For Service Delivery: Concept And Simulation	2019	Majed Alwateer, Seng W. Loke	1. Drone receive request directly from clients or indirectly through a proxy (i.e. its station center) 2. The drone must then decide whether it can take up a job upon receiving the request 3. Drone will perform the request	1. Autonomous activity 2. Save human efforts 3. More revenue

### 3. PROPOSED SYSTEM

Due to rise in demand for commercial deliveries within cities, companies are facing

problem to home delivery because of heavy traffic in road transport.



Use of drone will enable faster transport of goods which will ensure timely delivery. It will also reduce the fuel cost of vehicles and human labour and thus will help in reducing the overall carbon footprint. In this proposed system a quadcopter-based UAV (unmanned Aerial Vehicle) is used. This system represents quadcopter-based UAV as a low weight and low-cost autonomous

flight capable Unmanned Aerial Vehicle for delivering parcel ordered by online from one place to another. This UAV by following Google map can locate and navigate to the destination. This system demonstrates the capability of the UAV to delivered parcel ordered by online and coming back to the starting place.



Figure 1. Architecture of a quadcopter

#### 4. OBJECTIVES

1. To reduce the overall time taken to deliver products to the consumer
2. To reduce overall cost involved in delivery
3. To increase efficiency
4. To reduce carbon footprint in the environment.

#### 5. CONCLUSIONS

This paper discusses on the topic of using unmanned arial vehicles as payload delivery drones for transporting goods for one place to other. It takes note on various works done over past years and proposes a system that can be used by the commercial industries for delivering goods to the consumer with efficiently, less energy consumption, reduced time and less carbon footprint thus, making this system an environmentally friendly.

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# MOVIE RECOMMENDATION USING KNOWLEDGE GRAPH

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## ABSTRACT

*The Knowledge graphs (KGs) catches structured data and relationships among a bunch of entities and items. Generally, constitute an attractive origin of information that can advance the recommender systems. But, present methodologies of this area depend on manual element thus don't permit for start to end training. This article proposes, Knowledge Graph along with Label Smoothness (KG-LS) to offer better suggestions for the recommender Systems. Our methodology processes user-specific entities by prior application of a function capability that recognizes key KG-relationships for a specific user. In this manner, we change the KG in a specific-user weighted graph followed by application of a graph neural network to process customized entity embedding. To give better preliminary predisposition, label smoothness comes into picture, which places items in the KG which probably going to have identical user significant names/scores. Use of, label smoothness gives regularization above the edge weights thus; we demonstrate that it is comparable to a label propagation plan on the graph. Additionally building-up a productive usage that symbolizes solid adaptability concerning the size of knowledge graph. Experimentation on 4 datasets shows that our strategy beats best in class baselines. This process likewise accomplishes solid execution in cold start situations where user-entity communications remain meager.*

## INTRODUCTION

Recommender frameworks are generally utilized in Internet applications to meet user customized interests and reduce data surplus. Conventional recommender frameworks which are based on collaborative filtering typically experience cold-start issue and experience trouble suggesting fresh items that haven't yet been intensely searched by the users. The problem can be overcome by presenting extra sources

of data like user/entity profiles or else social networking communities. KGs collect organized data and relations among a bunch of elements. These are heterogeneous diagrams in which nodes compare to elements (e.g., elements or items, and its properties and qualities) while edges compare to relations. Knowledge Graphs supply connectivity data among elements by means of various kinds of relations and subsequently catch semantic likeliness among elements. The major



task in using knowledge graphs in recommender frameworks is to figure out in what way to catch user-specific element-element likeliness caught by knowledge graph. Prevailing knowledge graph mindful recommender frameworks can be arranged into path-based techniques, implanting based strategies and hybrid strategies. But, these methodologies depend on manual element, which can't perform start-to-finish point training, and have very low versatility. Graph Neural Network (GNN), which collect data from local nodal network from nearby area utilizing neural networks, address an optimistic headway in graph-built learning. In recent times, few works created GNNs engineering for recommender frameworks yet these methodologies are generally intended for homogeneous bipartite use-element communication graphs or-else user-element similarity graphs. It's an open inquiry in what way we can stretch GNNs engineering to heterogeneous information graphs. The article, described the development of KG-LS that stretches GNNs engineering to KGs to concurrently seize semantic connections among the entities along with customized user inclinations and interests. To represent the social heterogeneity in knowledge graphs, like, we utilize a trainable and customized connection scoring capacity that changes the knowledge graph in a client-explicit weighted chart that portrays the semantic data of knowledge graph also the client's customized requirements. For instance, in a film recommendation setting a connection scoring capacity might discover that a particular client truly thinks often about "director" connection among movies and persons, while another person may think often more of a "lead actor" connection. By use of this customized weighted graph, at that point we can apply a GNN that for each element node registers its embedding through totaling node data above the local network area neighborhood of a element node.

A critical contrast among our methodology and conventional Graph Neural Networks is nothing but edge loads in the graph are not provided as feed in. Generally, we fix a utilizing client-specific connection scoring function which is prepared through a directed design. Though, the additional pliability of edge loads creates the learning procedure susceptible to over-fitting, as the lone source of administered signal for the relation scoring function comes from client element collaborations (that are generally inadequate). To solve this particular issue, we build up a strategy for uniformity of edge loads in the learning procedure, which promotes improved reasoning. We build up a methodology dependent on LS, which expects that

adjoining elements in the KG are probably going to have comparable client significance label/scores. In the setting, this supposition implies that clients in general have identical inclinations to elements that are close by in the knowledge graph. The KAG neural networks along with LS uniformation can be brought together in a similar structure, where LS can be viewed as a normal decision of uniformation on KAG. Examinations show that our strategy accomplishes critical gains over cutting edge strategies in recommendation exactness. We likewise show that our technique keeps up solid recommendation execution in the cold-start situations where client element communications are scanty.

## RELATED WORK

### • Recommendations System

MOVREC is a recommender system for movies presented by D.K. Yadav et al. based on a collaborative filtering approach. Collaborative filtering uses user-provided information. A movie is recommended to users who are structured in a way with the highest rating first, based on the review of the information given. Two conventional recommendation systems have also been studied by Luis M Capos et al, i.e. collaborative filtering and filtering based on content. He introduced a new method, which is a mixture of collective filtering and the Bayesian network, since both methods have their own disadvantages. Harpreet Kaur et al. have suggested a hybrid framework. This approach utilizes a content mix along with a collaborative algorithm that filters. The history of the films is often taken into account when recommending a movie. A major role in the Recommendation is the interaction between the user - item relationship and the user - user relationship. A cluster is created using chameleon by clubbing item specific details or user specific information via Utkarsh Gupta et al. This is a systematic approach Hierarchical clustering dependent for the proposed technique. To predict the ranking, a voting system for objects is used. This system Hierarchical clustering dependent has a lower level of error and better clustering of associated objects. Clustering has been suggested as a way of coping with Urszula Ku'zelewska et al recommended structures. Two approaches were introduced and tested by members of the computing cluster. As a basis for comparing the usefulness of the two suggested approaches, collaborative memory-based filtering and centroid-based solution methods were used. Compared with only a centroid based approach, the combination resulted in a significant increase Even in order of the



suggestions produced. CostinGabriel Chiru et al, which uses the user’s data to provide movie reviews, suggested a Movie Recommender scheme. The purpose of this scheme is intended to solve the particular problem of resulting from overlooking user-specific data. This collects the psychological profile, the history of the user and the data from other websites about movie ratings. It is a model of a hybrid that uses both collaborative sorting approaches and filtering based on content. Hongli LIn et al, In order for each trainee to predict the difficulty level of each scenario. Suggested a method called content boosted collaborative filtering. The algorithm is split into two phases, In particular, the content-based filtering that enhances the present case ratings information for trainees and the second is a joint filtering that gives the final predictions. Not only does this CBCF algorithm include the benefits of both CF and CBF, but it also overcomes both of their disadvantages.

• **Recommendations with Knowledge Graphs**

Current Knowledge graph-aware recommender systems are divided in 3 groups:

{1} Embedding-built approaches initially process a KGE algorithm before incorporating learned entity embedding into the recommendation. The KGE algorithms emphasis more on modelling rigorous semantic likeliness (example: Trans-E [2] meaning head+relation=tail), making them more appropriate for graph applications like link forecast instead of recommendations. Furthermore, embedding-based approaches often lack as start-to-end training process.

{2} Path-built approaches look at different patterns of interactions between entities in a knowledge graph to help recommendations with added direction. Path-based approaches allow more intuitive use of KGs, but they depend heavily on manual created graphs, that are difficult to adjust in practice.

{3} Hybrid approaches incorporate the above two methods and use the structure of KGs to learn user/item embedding. The model we propose can be an example of hybrid methodology.

**PROBLEM FORMULATION**

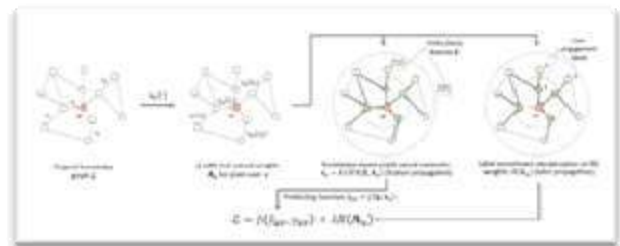
We start by introducing notation and defining the KG-aware recommendations issue. We have a set of **users M** and a set of **items N** in a standard recommendation scenario. The client-item interaction **medium P** is determined by client’s implied input,

with  $p_{mn} = 1$  indicating that user  $M$  has interacted with item  $N$  in a way, like click, view, and buy. We have a knowledge **graph D** = (h,r,t), where  $h \in E$ ,  $r \in R$ , and  $t$

Symbol	Meaning
$M = \{u_1, \dots\}$	Bunch of users
$N = \{v_1, \dots\}$	Bunch of items
$P$	User-item interaction medium
$D = (E, R)$	KG
$E = \{e_1, \dots\}$	Bunch of entities
$R = \{r_1, \dots\}$	Bunch of relations
$E/N$	Bunch of non-item entities

$\in E$  mean the head, relation, and tail of a knowledge triplet, respectively, while  $E$  and  $R$  mean the set of entities  $E$  and relations  $R$  in the KG. In instance; the triple (Red dragon, film.film.star, Brett Ratner) indicates that Brett Ratner is the main character in

"Red dragon". In certain suggestion cases, an item  $v \in V$  relates to an entity  $e \in E$  (for example, in MovieLens, the element " Red dragon" also appears as an entity in the knowledge graph). Item  $N$  ( $N \subseteq E$ ) as well as non-items  $E/N$  (example: nodes equivalent to item/product qualities) make up the set of entities  $E$ . Our goal is to forecast whether user  $M$  would be interested in item  $N$ , that he or she had not previously interacted with, based on the user-item interaction medium  $P$  and the knowledge graph  $D$ . We want to learn a prediction function  $\hat{p}_{mn} = Z(m,n;\Theta, P, D)$ , where  $\hat{p}_{mn}$ , where  $\hat{p}_{mn}$  mean the likelihood that user  $M$  will interact with item  $N$  and  $\Theta$  are model parameters of function  $z$ .



**Label Smoothness Regularization**

(An ingredient of higher model accuracy)

When we use the cross-entropy loss to solve a classification problem, we expect true labels to have 1 and false labels to have 0. To put it another way, we are certain that the real labels are true, while the others are not. Is this always the case? May be not. Many manual annotations are the product of collaboration between several participants. They may have different standards. They can make some errors. After all, they are human.



As a consequence, the ground truth labels on which we have perfect values could be incorrect. We may, for example, reduce the loss target values from 1 to 0.9. As a result, we marginally boost the goal value of 0 for the others. This is nothing but Label smoothing.

The arguments in cross entropy loss, as defined by Tensorflow, are as follows:

```
tf.losses.softmax_cross_entropy(
    onehot_labels,
    logits,
    weights=1.0,
    label_smoothing=0,
    scope=None,
    loss_collection=tf.GraphKeys.LOSSES,
    reduction=Reduction.SUM_BY_NONZERO_ME
)
```

This is how the label smoothing argument is defined in the Tensorflow documentation

*If label\_smoothing is nonzero, smooth the labels towards 1/num\_classes: new\_onehot\_labels = onehot\_labels \* (1 - label\_smoothing) + label\_smoothing / num\_classes*

What it means?

For example, you were training a model for binary classification. Your labels could be 0 — cat, 1 — not cat.

Now, suppose you label\_smoothing is 0.2

By using above equation, we get:

$$\text{new\_onehot\_labels} = [0 \ 1] * (1 - 0.2) + 0.2 / 2 = [0.1 \ 0.9]$$

$$\text{new\_onehot\_labels} = [0.9 \ 0.1]$$

Instead of hard labels, which are 0 and 1, these are soft labels. As a result, when an incorrect prediction occurs, you will suffer a smaller loss, and the model will be penalize and learn incorrectly to a lesser extent.

Label smoothing, in essence, will assist the model in training around mislabeled data, thereby improving its robustness and efficiency.

## DISCUSSION

What role does the knowledge graph play in identifying user’s interests? To understand this, we can make an analogy with the physical symmetry model as in Fig 2. Each entity/item is viewed as a unit, with the administrated positive client-relevancy signal acting as a power pushing the unobserved items down and the negative items signal acting as a power pulling the noted positive items up from the decision borderline. These items are very lightly connected with one another without KG (Figure 2a) due to the collaborative filtering effect (which, for the sake of consistency, is not drawn here). Edges in the KG, on the other hand, function as rubber bands, enforcing explicit limits on associated individuals. When the number of layers is L = 1 (Figure 2b), each entity's representation is a mix of itself and its adjacent neighbours; thus, focusing on the positive things would bring their adjacent neighbours up together as well. As L increases, the upward force in the KG increases, which aids in the exploration of user’s long-distance needs and the retrieval of more positive elements (Figure 2c). It's also worth noting that the KG's proximity restriction is tailored because the rubber band's strength (i.e., su (r)) is user- and relation-specific: 1 user might choose relation r1 (Figure 2b), whereas another might prefer relation r2 (Figure 2d). Edge loads could be assigned incorrectly, for e.g, too small to pull up unobserved objects, despite force exerted by edges in the knowledge graph (i.e., rubber bands being too weak). The label smoothness assumption is then used to help regularize the learning of edge weights, as shown in Figure (2e). Assume we have the positive model in the left and aim to replicate its label with the remaining items. As the true relevant label of the held-out model is one and the right model has the highest label rate, the Label Smoothness uniformation term U(A) will push the edges with projectiles to be as wide as possible so that the label would “flow” as much as possible from the blue to the striped sample. As a result, the rubber bands (depicted by projectiles) will tighten and the model will be more inclined to pull up the two upper pink objects.

## Datasets

The MovieLens-20M dataset, which comprises of roughly twenty million clear ratings (From 1-5) on the MovieLens website, is a commonly used benchmark dataset in movie recommendations. There are 102,569 elements, 499474 edges and 32 relation-categories in the KG.

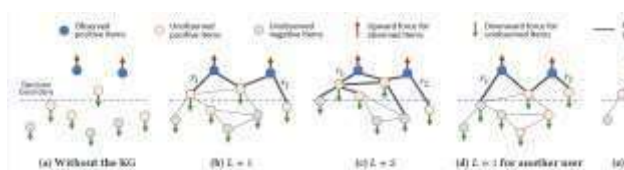


Figure 2: (a) Analogy of a physical equilibrium model for recommender systems; (b)-(e) Illustration of the effect of label smoothness regularization.



## RESULTS

### Efficacy of LS Regularization

Does the suggested  $c$  regularization effective in enhancing GNN status? The dimension of unseen layers to see how output changes to test the efficacy of LS regularization. In recommender systems, Label smoothness regularization can help with learning the edge loads in a knowledge graph and achieving improved simplification.

### Results in cold-start scenarios

One of the main goals of using knowledge graphs in recommender frameworks is to address the problem of scantiness. We varied the proportions of the training set of MovieLens-20M from  $r = 100$  percent to  $r = 20\%$  to investigate the efficiency of KG-LS in cold-start scenarios (while the validation and test set are kept fixed). As  $r = 20\%$ , AUC drops by 8.4%, 5.9%, 5.4 percent, 3.%, 2.8%, and 4.1% for the six baselines, respectively, relative to the model trained on complete training data ( $r = 100\%$ ), but KG-LS only drops by 1.8%. This shows that even when user-item interactions are scarce, KG-LS retains predictive efficiency.

## CONCLUSION AND FUTURE WORK

In this paper, we propose a recommendation system based on a knowledge-aware graph with mark smoothness regularization. KG-LS applies GNN engineering to knowledge graphs by combining neighborhood data with varied loads and using client-specific relation scoring functions. Furthermore, for learning the edge loads in KGs, the proposed LS restriction and leave-one-out loss provide good uniformity. We also go into how KGs can help recommender systems learn the edge weights and how label smoothness can help with that. The use of LS regularization for recommendation tasks with KGs is suggested in this paper. Additional graph tasks, like relation prediction and node sorting, are important to investigate using the LS assumption. A fruitful way is to look into the theoretical relationship among feature propagation and label propagation.

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## FORMULATION AND CHARACTERIZATION OF HERBAL TABLETS FOR THE MANAGEMENT OF DENGUE

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### ABSTRACT

Tablets are used as formulation and are prepared by using plant extracts i.e., *Carica papaya* and *Embelica officinalis*. These tablets were prepared by using wet granulation method. In this article the extract of leaves of *Carica papaya* and fruits of *Embelica officinalis* were used for making herbal tablets. Extracts of leaves of *Carica papaya* was obtained by cold extraction and through maceration method and the extract of fruits of *Embelica officinalis* was obtained by maceration process. Both extracts were dried and mixed. These extracts were then impregnated with the excipients like diluents, binding agents, super disintegrating agent, lubricants, etc. to make granules. These granules were then evaluated by using various parameters like Angle of repose, tapped density, bulk density, Carr's Index, Hausner's Ratio and void volume. These granules were then used for the making of tablets of desired size and shape by punching in the machine. After preparation of the tablets their evaluation parameters were studied like physical appearance, weight variation, friability, disintegration time, hardness test and thickness. Also the parameters for the acceptance of the tablets is also done like flavor and sweetness. Recent studies have shown that herbal extract of leaves of papaya has beneficial effect as an anti-inflammatory agent, for its wound healing properties, anti-tumor as well as Immunomodulatory effects and as an antioxidant. Amla fruit is a rich natural source of vitamin C (Ascorbic acid) and contains 600-750 mg/100 g of the fresh pulp. Also it is rich in minerals matters like phosphorus, iron and calcium. Amla is used as an Immunomodulatory agent and hence enhance the immunity of the patient. Aim of the study is to design develop and optimize the dosage form to cure dengue and is based on the use of natural plant ingredients to intermingle with chemical as well as synthetic ingredients to develop an effective unit dosage forms for better patient compliance.

**KEYWORDS:** Papaya, Amla, Extracts, Herbal tablet, Dengue, Immunomodulatory, Platelets.



## 1. INTRODUCTION

Medicinal plants are widely distributed throughout the world but most abundantly in tropical countries. It is a mosquito-borne disease affected by infection of any anti-genically distinct dengue virus serotypes, belonging from *Flavivirus* genus as well as *Flaviviridae* family, contain with single positive stranded RNA viruses. It is estimated that about 25% of all modern medicines are directly or indirectly derived from higher plants. Thus, herbal medicine has led to the discovery of a number of new drugs, and non-drug substances. To achieve the desired benefit from herbal preparations, an individual must take the required dose over a certain length of time. Although it is generally believed that most herbal preparations are safe for consumption, some herbs like most biologically active substances could be toxic with undesirable side effects.<sup>1</sup>

## 2. DRUG FORMULATION

**2.1 Papaya:** *Carica papaya* belongs to the fruits and vegetables class of family Caricaceae. The fruit are popularly used as desert or processed into Jam, puree or wine, while the green fruits are cooked as vegetable.<sup>2</sup> *Carica papaya* leaf (CPL) is used as food or as medication in folk medicine. Traditionally, the leaf extract was used as a tonic for the heart, analgesia and treatment for stomach ache. The extract is also known to have antioxidant properties but there are no scientific data reported on the protective effect of this extract on alcohol induced acute gastric damage.<sup>3</sup>



**Figure 1: Showing leaf of *Carica papaya***

Papaya is also known as the source of papain enzyme, a kind of enzyme that is utilized as meat tenderizer. Papaya leaf extracts have phenolic compounds, such as protocatechuic acid, p-coumaric acid, 5,7-dimethoxycoumarin, caffeic acid, kaempferol, quercetin, chlorogenic acid. These compounds have antimicrobial activity and have been proven to be able to inhibit the growth of microbes.<sup>4</sup> The high level of natural self-defense compounds in the tree makes it highly resistant to insect and disease infestation.<sup>5</sup> *Carica papaya* has crown shaped large palmate leaves emerging from the apex of the trunk of the tree. The soft, hollow, cylindrical trunk ranges from 30 cm in diameter at the base to about 5 cm in diameter at the crown. The leaves (especially fallen ones) are used variously for the treatment of fevers, pyrexia, diabetes, gonorrhoea, syphilis, inflammation and as a dressing for septic wound.<sup>6</sup> Recent studies have shown its beneficial effect as an anti-inflammatory agent, for its wound healing properties anti-tumor as well as immunomodulatory effects and as an antioxidant. A toxicity study (acute, sub-acute and chronic toxicity) conducted on Sprague Dawley rats administered with *C. papaya* leaves juice revealed that it was safe for oral consumption. Safety studies based on OECD (Organization of Economic Cooperation and Development) guidelines for acute, sub-acute and chronic toxicity conducted on *C. papaya* extract and showed that it was found to be safe for human consumption. The leaves of papaya have been showed to contain many active components that can increase total antioxidant activity in blood and reduce lipid peroxidation level, such as papain, chymopapain, cystatin, tocopherol, ascorbic acid, flavonoids, cyanogenic-glycosides glucosinolates. The alkaloids, flavonoids, saponins, tannin, and glycosides are related with anti-inflammatory activity. *C. papaya* leaves extract also found to have anti-bacterial effect, anti-tumor, and immunomodulation activities. The leaf of *C. papaya* is categorized as nontoxic because its LD<sub>50</sub> >15 g/kg body weight. The leaves also contain cardiac glycosides, anthraquinones, carpaine, pseudocarpaine, phenolic compounds.<sup>7</sup>



**Figure 2: Showing papaya leaf with extract**

Little information exists on the antimicrobial property of *C. papaya* dried and fresh leaves. Recently, antifertility, antihelminthic and anti-inflammatory activity has been reported. Leaves have been poultice into nervous pains, elephantoid growths. Papaya leaves are made into tea as a treatment for malaria. Antimalarial and antiplasmodial activity has been noted in some preparations of the plant, the leaves of the papaya plants contain chemical compounds of karpain, Substance which kills microorganisms that often interfere with the digestive function. Antimicrobials of plant origin effective in the treatment of infectious diseases and simultaneously mitigating many of the side effects often associated with synthetic antimicrobial agents have been discovered.<sup>8</sup>

**2.2 Amla:** It is fresh as well as dried fruits of the plant *Emblca officinalis* or *Phyllanthus emblica* belonging to family Euphorbiaceae.

Colour: Green color changes to light yellow or brick red at maturity

Odour: Odourless

Taste: Sore and Astringent

Size: Average size is between 1.5 and 2.5 cm in diameter

Shape: Depressed and Globular

Fruits are fleshy obscurely 4 lobed with 6-trygonus seeds. They are very hard and smooth in appearance. Amla fruit is a rich natural source of vitamin C (Ascorbic acid) and Contains 600-750 mg/100 g of the fresh pulp. Also it is rich in minerals matters like phosphorus, iron and calcium. It contain appreciable amount of pectin. Fresh fruit contains about 75% moisture. It is found that the vitamin content of dried fruits is not lost considerably. It may be due to the presence of tannins, which retards oxidation of vitamin C. *Amla* fruits are largely used in Indian medicine. It is used as an acrid, diuretics, refrigerant, laxative, diarrheas and dysentery. It is a popular ingredient of '*Triphala*' and '*Chyawanprash*'.<sup>9</sup> The anti-inflammatory response of *E. Officinalis* extract has been well established and predicted mechanism for anti-inflammation is based on its function to reduce lymphocyte proliferation and histopathological severity of synovial hyperplasia.<sup>10</sup>



**Figure 3: Showing leaves and fruit of Amla (*Emblca Officinalis*)**



## Description

### Macroscopic

Drug consists of curled pieces of pericarp of dried fruit occurring either as separated single segment, 1-2 cm long or united as 3 or 4 segments, bulk colour grey to black, pieces showing a broad, highly shrivelled and wrinkled external convex surface to somewhat concave, transversely wrinkled lateral surface, external surface shows a few whitish specks, occasionally some pieces show a portion of stony testa (which should be removed before processing); texture rough, cartilaginous and tough.

### Microscopic

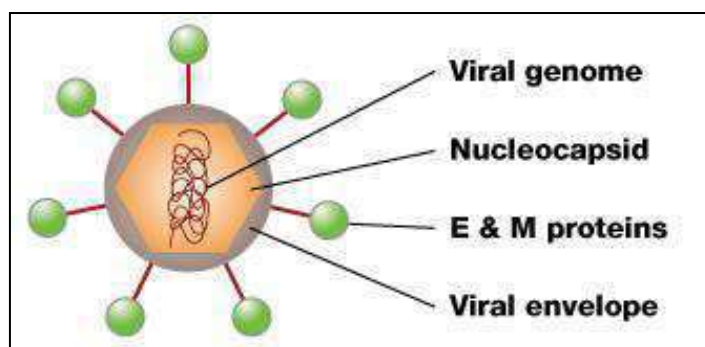
Transverse section of fruit shows epicarp consisting of a single layered epidermis cell appearing tabular and polygonal in surface view; cuticle present; mesocarp cells tangentially elongated parenchymatous and crushed differentiated roughly into peripheral 8 or 9 layers of tangentially elongated smaller cells, rest consisting of mostly isodiametric larger cells with walls showing irregular thickenings; ramified vascular elements occasionally present; stone cells present either isolated or in small groups towards endocarp; pitted vascular fibers, walls appearing serrated due to the pit canals, leading into lumen.

### Powder

Fine powder shows epidermis with uniformly thickened straight walled isodiametric parenchyma cells with irregular thickened walls, occasionally short fibers and tracheids.<sup>11</sup>

### Causative Organism for Dengue

Viruses essentially consist of genetic material (nucleic acids, DNA strand) and a capsular envelope made up of proteins, often with a coat of a phospholipids (PL) bilayer with embedded proteins. They lack a metabolic system but depend on the infected cell for their growth and replication. Targeted therapeutic suppression of viral replication requires selective inhibition of those metabolic processes that specifically serve viral replication in infected cells. To date, this can be achieved only to a limited extent.<sup>12</sup>



**Figure 4: Showing Structure of Dengue Virus**

Positive stranded encapsulated RNA virus, 3 structural protein genes: C, M, E & 7 NS protein genes  
Dengue is an arthropod-borne viral disease carried by *Aedes aegypti* as the vector, caused by 4 possible viral serotypes, namely, serotype 1, 2, 3, and 4 of the Flaviviridae family. There is no specific antiviral drug available for the treatment of dengue infection. Each episode of infection is known to induce a life-long protective immunity to the homologous serotype but confers only partial and transient protection against subsequent infection by the other serotypes. Secondary infection is a major risk factor for Dengue Haemorrhagic Fever (DHF) possibly due to antibody-dependent enhancement. A patient with dengue fever presents typically with fever, headache, and rash known as the dengue triad. There are many other nonspecific signs and symptoms associated with DF and patient can progress to DHF and typically manifests as abdominal pain, bleeding, and even circulatory collapse. The clinical course of dengue has an abrupt onset followed by three phases, namely, the febrile phase, the critical phase and the recovery phase. It is during the critical phase that thrombocytopenia, characterized by a decrease in platelet count below 1,00,000/mm<sup>3</sup> from the baseline and haemoconcentration, characterized by an increase of haematocrit by 20% or more, is detectable before the subsidence of fever and the onset of shock. Safety studies based on OECD guidelines for acute, subacute, and chronic toxicity were conducted on *C. papaya* extract and showed that it was found to be safe for human consumption. The present study was conducted to determine and investigate the traditional claim that CPLJ increases the platelet count in patients with DF and DHF.<sup>13</sup>



### 3. MATERIALS AND METHODS

#### 3.1 Material used

Plants used are locally cultivated Papaya (*Carica papaya*) and Amla (*Emblica officinalis*) and authenticated in own laboratory. Lactose, Starch, Magnesium Stearate, Talc, Methyl Parabens, Mannitol, Sucrose, Sodium Starch Glycolate, Ethanol were procured from sigma Aldrich. Vanillin, Calcium Carbonate, Sodium Carbonate and Sodium Saccharin were procured by CDH, chemicals. All other ingredients are of analytical grade.

#### 3.2 Methodology

##### 3.2.1 Preparation of extracts of *Carica papaya*

###### 3.2.1.1 Cold extraction

The collected green *Carica papaya* leaves were washed with distilled water from which 50 grams of the leaves were crushed and grounded in a blender using 200 ml of distilled water in order to obtain the juice from the fresh leaves.

###### 3.2.1.2 Maceration

An aqueous extract of *Carica Papaya* was prepared with 100% distilled water by adding 50g of fresh cut leaves in to 200 ml of distilled water. The mixture was kept in the room temperature for two days. At the end of the first day the water containing the extract was filtered and collected, then it was resuspended with 200ml fresh distilled water and the maceration was continued again for the next day. Finally both extracts were combined.



Figure 5: Showing *Carica papaya* Extract

###### 3.2.1.3 Concentration of Extract

The mixture was heated at 50-60° C for 48 hours. The procedure involves simple decoction process of the aqueous extract from which the soluble compounds further heated at a higher temperature 70-75°C for 3 hours until the solvent gets evaporated completely. Temperature was maintained to avoid the charring of the product. The obtained dry product was weighed and the yield was noted.

##### 3.2.2 Preparation of extracts of *Emblica officinalis*:-

Procured plant materials Amla pericarp was dried and then coarsely powdered in a blender. The coarse powder 1 kg was subjected to maceration for 72 hours, followed by exhaustive maceration for 48 hours by using solvents 60% ethanol. The solvents was decanted and filtered with filter paper and recovered by distillation with help of rotary vacuum evaporator at 750°C to 800°C. The extracts were dried under desiccator and stored in airtight container at room temperature.



**Figure 6: Showing Amla Extract**

### 3.2.3 Preparation of tablets

#### 3.2.3.1 Wet granulation method

The concentrated extract of Carica papaya and Amla was mixed with the excipients such as Sodium starch glycolate, Methyl paraben, Starch, Sodium saccharin, Vallinin, Calcium carbonate and Mannitol in order to increase its bulkiness and to convert in to a powder mass with passable flow property and compressibility. It was passed through sieve no. 8 & 12 in order to break the lumps to get uniform granules in which Talc and Magnesium stearate were added finally. The total weight of the granules was noted and evaluated.



**Figure 1: Showing batch F1 Tablets**



**Figure 2: Showing batch F2 Tablets**

#### 3.2.3.2 Procedures of Evaluation Parameters of Granules

##### 3.2.3.2.1 Angle of Repose

Powder is poured from a funnel onto a horizontal surface; it will form a cone due to gravitational forces. The angle between the sides of the cone and the horizontal is referred to as the angle of repose. The angle of repose is a relatively simple technique for estimation of the flow property of powder. Powders with low angle of repose are free flowing and those with a high angle of repose are poorly flowing powders. 10gm of granules were passed through funnel and the pile was formed. The angle of repose was calculated by using the formula:

$$\text{Angle of Repose } (\theta) = \tan^{-1} \frac{\text{Height (h)}}{\text{Radius (r)}}$$

##### 3.2.3.2.2 Bulk Density

This is obtained to know the exact volume of the granules that is being placed in the cylinder. Initials are used in the formula. Bulk density is also known as the fluff and poured density and is calculated by using formula:

$$\text{Bulk Density} = \frac{\text{Mass (M)}}{\text{Volume (V)}}$$

**3.2.3.2.3 Tapped Density**

It is obtained with the help of tap density apparatus, in which the powder is filled in the cylinders and the tapping is done. After few times of intervals the volume of the cylinder is noted done and the tapped density of the granules is calculated using following formula:

$$\text{Tapped density} = \frac{\text{Weight of granules (W)}}{\text{Volume of granules after 50 taps (V}_{50})}$$

**3.2.3.2.4 Carr's Index**

After obtaining the tapped and fluff density, the Carr's Index is being calculated by using 100ml measuring cylinder and calculated by following formula:

$$\% \text{age Compressibility} = \frac{\text{Tapped density} - \text{Fluff density}}{\text{Tapped density}} * 100$$

**3.2.3.2.5 Hausner's Ratio (H.R.)**

This ratio is obtained after the tapped density is calculated by using following formula:

$$\text{H.R.} = \frac{\text{Tapped density}}{\text{Poured density}}$$

**3.2.3.2.6 Void Volume**

This volume of the granules is obtained by using the values of bulk volume and tapped density. This will indicates the air volumes that is being created in the granules during tapping and is calculated by using formula:

$$\text{Void Volume} = \text{Bulk Volume} - \text{Tapped Volume}$$

**3.2.3.3 Procedures of Evaluation Parameters of Granules****3.2.3.3.1 Weight Variation**

10 tablets were selected randomly and weight individually. The average of tablets is calculated using formula and the Standard deviation is calculated by using following formula:

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\text{Deviation}^2 (D^2)}{\text{No. of tablets (N)}}}$$

**3.2.3.3.2 Hardness test**

This test is done using the Monsanto and Pfizer apparatus. In this the tablet is kept in its place in the apparatus and the pressure is applied to it. The pressure is noted down which have been recorded by the pressure gauge and average hardness is calculated.

**3.2.3.3.3 Friability test**

This test is carried out by using Friability apparatus. The weighted tablets are placed in the apparatus and it is rotated at 25 rpm for 5 minutes. After sometimes tablets are removed out from apparatus and again they are weight. The friability is calculated by using following formula:

$$\text{Friability} = \frac{\text{Initial weight (Wi)} - \text{Final weight (Wf)}}{\text{Initial weight (Wi)}} * 100$$



### 3.2.3.3.4 Acceptability test

In this test the acceptability of the tablets is checked, whether the tablets are suitable to eat or not. The sweetness & odour of tablets are tested by 5 volunteers and the acceptance is noted down in the table with the remarks given by each volunteer regarding the tablets.

### 3.2.3.3.5 Disintegration test

3 tablets are taken for the evaluation of the disintegration time. The tablets are placed in the disintegration apparatus and the time is observed till the tablet gets totally disintegrated. The temperature of the apparatus is maintained at 37° C.

## 4 RESULTS AND DISCUSSION

### 4.1 Results

Formulation of tablets with Plant extracts: Two batches of tablets were prepared using calcium carbonate, lactose, SSG, starch, mannitol, vallinin, sodium saccharin, magnesium stearate, talc, sodium carbonate, Papaya leaves and Amla fruit extract is used in the preparation of tablets. These are the main ingredients that are used for the manufacturing of Trial batch as well as F1 & F2 batch and are showed in the Table No. 1

#### 4.1.1 Formulations table

Table No. 1

Sr. No.	Ingredients Used	Trial Formulation	Formulation (F1)	Formulation (F2)
1.	Sodium starch glycolate	5 gm	2.5 gm	3.5 gm
2.	Lactose	50 gm	20 gm	--
3.	Starch	1.5%	1.5%	1.5%
4.	Methyl paraben	1 gm	100 mg	100 mg
5.	Mannitol	5 gm	1.5 gm	1.5 gm
6.	Sodium saccharin	--	1 gm	1 gm
7.	Magnesium stearate	1.5 gm	1.5 gm	1.5 gm
8.	Talc	2 gm	1 gm	1 gm
9.	Vallinin	1 gm	200 mg	200 mg
10.	Papaya extract	--	2 gm	2 gm
11.	Amla extract	--	1.75 gm	1.75 gm
12.	Calcium carbonate	---	2 gm	2 gm
13.	Sodium Carbonate	--	5 gm	--

These are some ingredients that are used in preparation of tablets which are useful in the treatment of dengue.

#### 4.1.2 Evaluations of Granules

The evaluation parameters angle of repose, tapped density, bulk density, Carr's Index, Hausner's Ratio and Void volume were carried out for the granules of F1 & F2 and are showed in the Table No. 2.

Table No. 2 Showing different Evaluation parameters of Granules of F1 & F2

Sr. No.	Evaluation parameters	Formulation (F1)	Formulation (F2)
1.	Angle of Repose (°)	0.537	0.500
2.	Tapped density (g/ml)	0.85	0.745
3.	Bulk density (g/ml)	0.689	0.617
4.	Carr's Index	18.9	17.2
5.	Hausner's Ratio	1.234	1.207
6.	Void Volume (ml)	7	6

These are some evaluation parameters that are carried out for the granules used to manufacture dengue tablets.



#### 4.1.3 Evaluations of tablets

The evaluation parameters like Physical appearance, acceptability test, weight variation, friability, hardness, thickness and disintegration test were carried for the F1 & F2 and are shown in Table No.3.

**Tablet No. 4: Showing different Evaluation parameters of Granules of F1 & F2**

Sr. no.	Evaluation parameters	Formulation (F1)		Formulation (F2)		
1.	Physical Appearance	Color		Brownish-black		
		Odour		Sweetish		
		Taste		Sweet		
		Shape		Round		
		Flavor		Vanilla		
		Size	Diameter (cm)	1		
			Width (cm)	0.5		
2.	Acceptance Test	Volunteers	Flavor	Sweetness	Flavor	Sweetness
		Brisha	+++	+++	+++	+++
		Shikha	+++	+++	+++	+++
		Poonam	++	++	---	++
		Anu	---	+++	++	+++
		Shivani	+++	+++	+++	+++
3.	Weight Variation (gm)	0.028		0.084		
4.	Friability (%)	0.32		1.66		
5.	Hardness Test ( kg/cm <sup>2</sup> )	4.25		4.00		
6.	Thickness Test (mm)	0.00633		0.00633		
7.	Disintegration Time (minutes)	7:30		6:50		
		7:35		7:00		
		7:36		7:15		

These are some evaluation parameters that are carried out for the tablets that are manufactured for dengue.

#### 4.2 Discussion

The preparation, evaluation and submission of the tables were done successfully. Three batches were prepared that is, one is trial batch and others are drug containing batch F1 and F2. There were many differences that are seen in the both of the formula of formulation F1 and F2. As in formula of both the batches to increase their bulkiness different diluents are used. In F1, Lactose is used while in F2, Calcium Carbonate is used. In formula also there is difference between the super disintegrating agent i.e., Sodium Starch Glycolate (SSG) in both formulations, the amount of SSG is increased in F2. In F1, the use of Sodium Bicarbonate is done that will decrease the tablet disintegration time. Papaya leaves extract is used to prepare the formulation because due to Dengue the Platelet count in patient is decreased, it will increase the count. Amla fruit extract is used to increase the immunity of the patient. The sweetening agents are also used to mask the bad taste. Also the flavoring agent is used which will mask the bad odour too. The difference between the evaluation parameters of Granules is also seen. Every evaluation parameter of F1 is Greater than the F2. The evaluation parameters of the tablets also have difference in both F1 and F2. As in physical appearance, tablets of F1 is having brownish-black colour and in F2, tablets are having brownish color. Acceptability test of both formulations indicates that they can be easily taken by patients. Weight variation and friability of F1 is lesser than F2. Thicknesses of the tablets of both formulations are same. Hardness and disintegration time of the F2 is lesser than as that of F1.

#### 5 CONCLUSION

From all the results obtained and discussion observed, the conclusion is obtained that the tablets were prepared for the Dengue was successful and that can be used for the treatment of the disease. In the present study the extract of leaves of *Carica papaya* was used and fruits of *Embelica officinalis* were used for making tablets. Extracts of leaves of *Carica papaya* was obtained by cold extraction and through maceration. Extract of fruits of *Embelica officinalis* was obtained by maceration process. These extracts were impregnated with the excipients like diluents, binding agents, lubricants to make granules. These granules were used for making tablets of desired size and shape. Recent studies have



shown in the present study herbal extract of leaves of papaya has beneficial effect as an anti-inflammatory agent, for its wound healing properties anti-tumor as well as immunomodulatory effects and as an antioxidant. Amla fruit is a rich natural source of vitamin C (Ascorbic acid) and Contains 600-750 mg per 100 g of the fresh pulp. Also it is rich in minerals matters like phosphorus, iron and calcium. It contain appreciable amount of pectin. It is found that the vitamin content of dried fruits is not lost considerably. The two plants extract that have been used for the preparation the tablets are said to be useful in the treatment of the disease. As, one extract i.e., Papaya leaves extract is used to increase the platelet count in body and the other i.e., Amla fruit extract is used to increase the immunity of the patient.

Present study may be used for as a novel approach for the treatment of Dengue infections. Tablets were prepared successfully from the plant extract of *Carica papaya* and *Embelica officinalis* with appropriate ingredients. Tablets were evaluated for different parameters showed satisfactory results. Results showed that F1 formulation showed better Disintegration time as compared to F2 formulation with other satisfactory parameters.

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# IMPACT OF COVID-19 ON CONSUMER SPENDING HABITS

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## ABSTRACT

*In this paper we have used both primary data and secondary data to look into the impact of the lockdown due to spread of the pandemic on consumer behavior. Our objectives behind this paper is to look into the factors which influence consumer behavior and in turn impact various industries, even though companies and government is coming up with various schemes in order to incorporate the new normal into the lifestyle of consumers but people are still reluctant in going out whether it's for weddings, food or shopping. With our study we have drawn various conclusions and suggestions for various sectors keeping in mind the responses of people in our survey.*

**KEY WORDS:** COVID-19, Consumer, Buying and Shopping Habits

## INTRODUCTION

The COVID-19 pandemic has fundamentally changed the world as we know it. People are living differently, buying differently and in many ways, thinking differently. Supply chains have been tested. Retailers are closing doors. Consumers across the globe are looking at products and brands through a new lens. The virus is reshaping the consumer goods industry in real time, rapidly accelerating long-term underlying trends in the space of mere weeks. Consumers are increasingly worried about the health and economic effects of COVID-19. People are responding in a number of ways and have differing attitudes, behaviours and buying habits. People across the globe are terrified to continue to adapt to a new standard. Fear is high as individuals contemplate what this crisis means to them, but more importantly, what it means to their families and friends and society at large.

The novel coronavirus was first reported in Wuhan, China last year and since then it has become a large-scale pandemic and has spread across the globe. WHO officially declared COVID-19 to be a pandemic on 11<sup>th</sup> March, 2020. As a measure to stop the spread of the virus as much as possible many countries resorted to nationwide lockdowns, India

being one of them. Measures taken by the Indian government to control the spread of the virus include: restricting international as well as domestic travel, shutting down of schools, malls, cinema halls, gyms and other public spaces, maintaining social distance like wearing a mask and maintaining a safe gap of at least one meter between two people when stepping out to get essential commodities, encouraging the use of technology for schools and offices, etc.

Consumers responded to the crisis in a number of ways. Some felt anxious and worried, fueling panic – buying staples and hygiene products. At the other extreme, some customers remain oblivious to the pandemic and continue to do their business as normal, despite warnings from government and health professionals. Now as the world fears a second wave of the pandemic it would be interesting to see if consumers are still fearful or will return to old habits.



## LITERATURE REVIEW

**Marianna Sigala (2020)** in the paper discusses why and how the COVID-19 can be a transformational opportunity by discussing the circumstances and the questions raised by the pandemic. The paper continues by discussing the major impacts, behaviours and experiences that three major tourism stakeholders (namely tourism demand, supply and destination management organizations and policy makers) are experiencing during three COVID-19 stages (response, recovery and reset). The present analysis is not exhaustive in terms of the COVID-19 impacts, while impacts may not be uniform across all the actors of the same tourism stakeholder group. The COVID-19 impact on tourism employment creates further pressures on tourism education that has severely been affected by the pandemic. Apart from the virtualization of teaching and learning processes, tourism students and graduates have to also address the halt of industry internships, recruitment and questionable career paths.

**Mohamed Ahmed Salem, Khalil Md Nor (2020)** in the paper discuss the importance of individuals adoption to a product or technology as a crucial factor as it is crucial to identify the reasons why individuals choose to use or not to use a particular technology. This study empirically assessed the factors that affect consumers' intention to adopt e-commerce during Coronavirus Disease 2019 (COVID-19) in Saudi Arabia. The 10 factors examined in this study are perceived usefulness (PU), perceived ease of use (PEOU), subjective norms (SN), perceived behavioural control (PBC), perceived lack of alternatives, perceived risk, perceived punishable infractions, risk-taking propensity, perceived external pressure, and government support. Data were collected online among social media users by employing the snowball sampling technique. The present technology is a crucial factor in gaining competitive advantage and success in this competitive era of globalization. It helps in faster production and decision making. Therefore, businesses are seeking innovative solutions to enhance their business performances, to gain more relative advantages, to slash costs, as well as to improve the quality of their services and products by adopting cutting edge technological developments

**Jungkeun Kim (2020)** in the paper focuses on the relationship between the COVID-19 threat and variety-seeking. Based on several theories, including reactance theory and terror management theory it predicts that the perceived threat of

COVID-19 will increase the tendency to choose more and different options in multiple choice settings. This research contributes theoretically and practically in several ways. First, due to the magnitude of the COVID-19 threat and its global impact, it is timely to investigate our consumption patterns during and after the pandemic. This paper provides a novel empirical investigation of the impact of the COVID-19 pandemic on consumption behaviour relating to variety-seeking. Second, to the best of our knowledge, the current literature is quite silent on the relationship between disease threat and variety-seeking. Therefore, this study extends our understanding of the antecedent variables for high (vs. low) variety-seeking. Finally, this paper provides both theoretical arguments and empirical evidence of the moderating variables for different types of choice. This moderation effect is important in that it could enhance our theoretical perspective on variety-seeking and allow practitioners and marketers to better manage sales of specific products.

**Dr. Vilas Chauhan, Ms. Heer Shah (2020)** in the paper talks about changing consumer behaviour during the pandemic. In line with global consumers, Indians too are highly concerned about the coronavirus outbreak, and have undoubtedly displayed high optimism. Amid this lockdown and social distancing measures in place, more consumers are now spending across select and essential products like buying groceries through mixed-mode of purchases (both, in-store and online) and sales of hand sanitizers, soaps and home cleaning products have risen. The changes in consumption patterns and in consumer behaviour will be more because of substantially diminished purchasing power in the hands of the consumer, and not so much because of being under lockdown for 3-4 weeks (or a bit more). In the longer run, the COVID-19 recovery is likely to result in a more permanent shift in consumers' attitudes and shopping behaviour, especially in urban areas, with increased usage of home and personal hygiene products and an accelerated shift to digital purchases.

**Jody Harris (2020)** in the paper has shown food system effects of COVID-19 reported by farmers on production, livelihoods, food environments and diets in households involved in vegetable production in four Indian states. The impacts of COVID-19 and subsequent policy responses on both livelihoods and diets in horticultural households' risk rolling back impressive economic and nutrition gains India has seen over the past decade. India's Right to Food legislation commits the government to action in this area, and suggests



that food systems, and particularly those making available the most nutrient-dense foods, must be considered in ongoing and future government responses.

**Thomas Reardon, Ashok Mishra, Chandra S R Nuthalapati, Marc F Bellemare, David Zilberman (2020)** in the paper discusses impact of COVID-19 on India's Food Supply Chain. It talks about effects on food security, post farm gate effects, effects on downstream SMEs, farm sector and informal sector. Through the paper the researchers recommend to not start with the idea of government emergency supplies replacing the market, but rather focusing on how to combine health measures with strategies to make the market work, and helping the FSC heal and rebound. Implementing new, broad safety nets for the SMEs and workers in the midstream and downstream segments of the FSCs is necessary in the short run.

**Olivier Coibion, Yuriy Gorodnichenko, and Michael Weber (2020)** in the paper examines the differential timing of local lockdowns due to COVID-19 causally affects households' spending and macroeconomic expectations at the local level. With the paper they conclude that a dramatic decline in employment and consumer spending as well as a bleak outlook for the next few years. They estimate that this economic catastrophe can be largely accounted for by lockdown. The significant costs that they identified suggest that policymakers should be wary of focusing only on the benefits of lockdown policies and not carefully weighing them against their costs. The analysis also provides that the input for policies aimed to mitigate the consequences of the COVID recession.

**Deloitte Report (2020)** The report examines various aspects of changes in trends and consumer behaviour. The report firstly examines the sustainability of change secondly examines trends by differentiation by demographics and examines its effect on long term behavioural change after COVID-19. It also discusses the implications across industries. In conclusion the report gives useful insights into short run and medium-term effects of COVID-19 on consumer behaviour in Germany and examines shifts because of the pandemic. The study shows that the current restrictions in the pandemic force the consumers to move from out of home to in home consumption. It also leads to an increase in usage of meal delivery platforms and rise in demand for digital connecting services to connect with the near and dear ones ensuring data security and privacy.

**Paolo Mastropietro, Pablo Rodilla, Carlos**

**Battle (2020)** in the paper talks about the pandemic and the consequent lockdown exacerbated energy poverty and insecurity worldwide. Many governments introduced emergency measures to protect energy consumers during confinement. This article reviews and classifies the policies implemented in several jurisdictions around the world, identifying potential inefficiencies, but also best practices. This article presents a global review of these emergency measures and classifies them in six policy groups: disconnection bans, payment extension plans, enhanced assistance programmes, energy bills reduction or cancellation, measures for commercial and industrial users, and creation of financing mechanisms.

**Asger Lau Andersen, Emil Toft Hansen, Niels Johannesen, Adam Sheridan (2020)** in the paper examines the effect of social distancing laws on consumer spending in the COVID-19 pandemic using transaction data from a large bank in Scandinavia. The researchers exploit a natural experiment to identify the effect of government restrictions separately from the impact of the virus and the health risks it entails: despite similar early experiences with the virus, the Danish government mandated social distancing to slow the spread of the disease while the Swedish government opted for a light-touch approach with a focus on voluntary recommendations. The findings suggest that the vast majority of the fall in economic activity in the COVID-19 crisis can be attributed to perceived disease risks influencing behaviour, rather than government restrictions.

**Jagdish Sheth (2020)** in this paper discusses the impact of COVID-19, lockdown and social distancing on consumer behaviour focusing on the question whether the old consumer habits will die or make a comeback once the pandemic is over. The focus of this paper is to examine both the immediate as well as the long-term impact of COVID-19 on consumption and consumer behaviour. Discussing about the immediate impact Sheth talks about how the panic among the consumers led to hoarding of essential goods like toilet paper, bread, water, disinfecting and cleaning products, etc. Sheth says that it is expected that most habits will return but some will definitely die. Habits like wearing a mask and maintaining social distance will continue as a modified habit when consumers visit public spaces. The lockdown and social distancing have caused a significant impact on consumer behaviour. Consumers have learned to come up with creative and innovative ways to fulfil their needs despite the shortage of resources available with them. And as consumers continue to



work, study and relax at home they are likely to adapt to newer technologies that are more convenient and embracing digital technology is likely to modify existing habits.

**Colleen P. Kirk and Laura S. Rifkin (2020)** in this research paper discuss some of the many unusual consumer behaviour patterns that came to dominate the early days of COVID-19 pandemic. Here they examine both transient as well as transformative consumer behaviours. Disinfectants, cleaning products, toilet paper and water saw the most sales which lead to supply chain disruptions as suppliers were unable to meet this sudden spike in demand. As a coping behaviour, people even started to quarantine with their friends and family to get the feeling of belongingness. Stay at home orders also gave rise to virtual gathering and video calling. Quarantine also increased the number of pets being adopted. Do it yourselves also saw a rise as people started to indulge more in activities like cooking, baking, painting, etc. How different brands advertised themselves during this pandemic also left a mark on consumers about the brands image. Increase in virtual gatherings and video conferencing has also given rise to a lot of mental illnesses and has started to blur the line between what is real and what is fantasy. History has shown that times of crisis often result in major transformations throughout society. Here consumer behaviours were addressed in three phases: reacting, coping and longer-term adapting.

**L. Laguna, S. Fiszman, P. Puerta, C. Chaya and A. Tárrega (2020)** in this research paper describe the impact of the COVID-19 health crisis on people's interests, opinions, and behaviour towards food. This study shows results from use of social media and an online survey with Spanish consumers. According to the internet search trends analysis searches like symptoms and spread of coronavirus peaked on google between last week of January and first week of March. During mid-march food related searches like flour, bread, fruit, banana and eggs gained popularity. According to the online survey grocery shopping habits didn't change much, only the frequency changed a bit, instead of twice per week more people started visiting only once a week. In conclusion searches like restaurants saw a decrease and recipes and delivery was an increase indicating that people were now cooking and eating more at home. That can also be observed as people bought more raw ingredients instead of readymade from grocery stores.

**Bharat Patil and Nerita Patil (2020)** in their

research paper discuss how the novel coronavirus affected the buying behaviour of consumers. Consumer behaviour suddenly changed in the lockdown situation, when nationwide lockdown was declared the public went to the market to purchase the essential goods. Sellers were black-marketing of essential goods, drugs, face masks, hand gloves and sanitizers. After the declaration of lockdown consumers experienced fear and felt unsecured. The news from television channels and multimedia drastically affected the behaviour of people. Consumers predicted the shortage of essential goods and they rushed to the market for purchase. Online marketing companies suspended their services to protect and care for the life of consumers and their staff during lockdown. In that period consumers were not more conscious about specific brands of goods.

## **RESEARCH GAP & PROBLEM DEFINITION**

### **Research Gap**

Research gap is the area that has not yet been explored or is under-explored. Research gap in this area of research could be a population or sample (age, size, income, location, etc.), research method like focus group or in-depth interviews, data collection and/or analysis, or other research variables or conditions. A lot of research has been conducted on the past and current times analysis however not a lot of attention is given to the future demand that may arise. In this research we have tried to get some insights about the future behaviour of consumers however a lot of topics still remain untouched.

### **Problem Definition**

How Covid-19 affected the buying and spending habits of consumers and how it will affect future behaviour of consumer?

## **OBJECTIVES OF THE STUDY**

- i. To understand the factors that are affecting consumer buying and spending in the pandemic situation.
- ii. To identify the challenges faced by the consumers due to COVID -19.
- iii. To analyze the influence of COVID-19 on the lifestyle of the consumers in the lockdown period.
- iv. To identify the pent-up demand that may arise after the pandemic.

## **RESEARCH METHODOLOGY**

To gain a better understanding of how COVID-19 affected the buying and spending of consumers using qualitative data. The research design used is explanatory. The present study is based on the



behaviour of consumers in the pandemic situation. The sample population selected for this analysis was the middle-income population staying in semi-urban locations in India.

To observe the consumer buying behaviour in the period of nationwide lockdown due to COVID-19 the following sources of data collection were used.

**Primary Data**

- i. A survey of multiple-choice questions was prepared in Google Forms which included both close-ended and open-ended types of question was sent to the sample population on their mobile devices. 192 participants responded out of which 180 responses were included in the analysis as some respondents responded multiple times.

**Secondary Data**

- i. Official and Government websites.
- ii. Published reports and surveys concerned to COVID-19 and buying behaviour of consumers.
- iii. Websites related to COVID-19 and buying behaviour of consumers.

**Scope of the Study**

This paper focuses on the consumer buying and spending habits affected by lockdown imposed due to COVID-19. In this study attempt was made to understand the various factors that affect the buying

behaviour of the consumer. Present study is only related to the pandemic situation and how the buying behaviour of the consumer was changed and how consumers are thinking about future spending. Mostly the research was carried in the period of phase 4 of lockdown when a lot of services and offices were opening up with certain restrictions and a few relaxations were made on stepping out of the house. However, educational institutions were shut and a lot of people were self-quarantining as a precautionary measure.

**RESULTS & DISCUSSION**

The emergence of COVID-19 pandemic resulted in a nationwide as well as a worldwide lockdown resulting in drop in employment and personal income. In order to control the pandemic, the Indian government announced nationwide lockdown on 25th March 2020. With this paper our objective was to understand the buying patterns of consumers, challenges faced by consumers during the pandemic, and what influence the lockdown had on consumer behaviour. Based on the primary survey conducted following were the results of how the lockdown affected the consumers behaviour and what is to be expected from them in the coming times.

**IMPACT ON RESTAURANTS**

Pre-Pandemic	Once or more than once a week	36	20%
	Once or twice a month	68	38%
	Once every 6 months	38	21%
	Once a year	38	21%
During Pandemic	Once or more than once a week	9	5%
	Once or twice a month	43	24%
	Not ordering at all as a precaution	128	71%
Post-Pandemic	Absolutely YES!	126	70%
	No, ordering online is more convenient	54	30%

Source: Primary Data

Since the pandemic people nearly stopped ordering food and completely stopped dining in. According to a report by Deloitte the worst industry hit is the restaurant industry during the pandemic. Restaurants work on two key components: delivery and dine in. In a report by Zomato it stated that it delivered around seven crore food orders since the lockdown. Only about 70 percent of restaurants work on delivery systems while others used work only on dining in systems. The dining in component of restaurants is operating at 8-10% of the pre COVID-19 levels a report by Zomato stated, the report also added that the slump in the industry is driven largely

because of the markets being under lockdown and also the fear among people of transmission hence they prefer not to step out. Even after the unlock phases only 17% dining out restaurants are open for business at present which also as a precautionary measure are operating at a low capacity and moreover most restaurants are not even open for business over 10 % restaurants have been shut permanently.

According to our survey figures we can see a clear drop in percentage in food ordering patterns of consumers with around 71% saying that they have stopped ordering from restaurants completely. However, once things get back to normal, we may



get to see a huge rush at restaurants as around 70% of the respondents said they were eager to go dine at restaurants.

**IMPACT ON SHOPPING**

Pre-Pandemic	Online	43	24%
	Malls and other stores	137	76%
During Pandemic	Yes	65	36%
	No	115	64%
Post-Pandemic	YES!	127	71%
	No, online is more convenient	53	29%

Source: Primary Data

Shopping malls work in an annuity business with only a few seasonal changes which are acquired through revenue share when store consumption crosses a fixed threshold. Owing to concerns over spread of coronavirus many shopping malls have been closed resulting in revenue loss for apparel/department stores, multiplexes and food retailers. In a report by ICICI Securities Report the pandemic is likely to last at least till Q1 FY21 wherein mall operators stand to lose 20-25% of their revenue with an assumption of the rent-free period. Malls are designed with the purpose to soothe people make people feel good and forget all the stress but with the pandemic and new social distancing and hygiene norms the concept may change as the new rules will demand us to stay more alert which can affect the consumption behavior of people and in turn

affect brands and retailers competing for our wallet. In the past years there have been online shopping channels like Myntra, Flipkart Ajo, etc for branded clothes, shoes and accessories. People were using these channels but now with the closed malls and shops they are forced to switch to online channels for purchase of goods. But the question that arises is, whether people will continue this forced change after malls and shops open.

Around 76% of the population preferred malls and other stores over online shopping and around 36% people shopped for clothes online during the pandemic and only 71% were excited to visit malls again. This indicates that 5% of the population found online shopping more convenient. However, there is still a huge number of people excited to visit malls.

**IMPACT ON GROCERY SHOPPING**

Pre-Pandemic	Yes, all the time	0	0%
	Sometimes	25	14%
	Once or twice	20	11%
	Never	135	75%
During Pandemic	Yes	31	17%
	No, still visiting the store	87	48%
	Both, sometimes I order & sometimes I go to the store	62	34%
Overstocked	Yes	53	29%
	No	65	36%
	Maybe	62	34%
Convenient	Online	26	14%
	Store	154	86%

Source: Primary Data

The past few months many major industries in India saw a halt but the online grocery delivery sector has been given a powerful opportunity to make progress. In the past years there have been a lot of online platforms that have come up with delivery of essential goods and services at home like Big Basket, Urban Clap, etc. In our survey we asked people about their usage of these platforms pre-pandemic, post-pandemic and during pandemic the response was as expected consumers have been using online channels

for shopping payment and services more during the crisis, but the increased usage of these channels also depends upon whether the user was a first time user or has used these channels even before the crisis. There can be seen a long-lasting impact on consumers who used more online during the crisis. The past few months since the pandemic the ecommerce websites have seen a considerable growth as well.

75% to the total respondents had never ordered groceries online. In the lockdown phase the



percentage of people starting to order groceries online went to 51% but 48% were still visiting the store. 63% said that they overstocked or maybe overstocked their groceries indicating that they feared grocery stores going out of stock. 36% continued to

fill their groceries as usual. 86% said that they felt shopping at store was more convenient indicating that online grocery sellers need to work harder to make the consumer experience better while shopping for groceries online.

**IMPACT ON OTT**

Pre-Pandemic	None	101	56%
	1 or 2	66	37%
	Between 3-5	11	6%
	More than 5	2	1%
During Pandemic	Yes	61	34%
	No	119	66%
Post-Pandemic	Yes	43	24%
	Maybe, not sure	42	23%
	No	37	21%
	I don't have any OTT subscriptions	58	32%

Source: Primary Data

The OTT platforms have been witnessing popularity since the pandemic started. Netflix gained over 15.8 million paid subscribers as lockdown audience, other OTT platforms like Hotstar Amazon prime and Zee5 have also witnessed spike in the number of subscriptions. Considering the widespread of COVID consumers are not sure whether they'll go to a theater or not. Many film producers have started to release their movies on these OTT platforms. These platforms will continue to see progress as long as they keep providing various types of content to the

consumers on continuous basis.

Around 101 respondents did not have any OTT subscriptions before the pandemic and 66 only had 1 or 2. 61 said that they got a new subscription out of which only 43 would continue to pay post-pandemic however, these could even include those people who had subscriptions before the pandemic. 42 respondents are not sure if they would continue paying for these and 37 said they will not pay. 58 still don't have any OTT subscriptions. 24% population got a new OTT subscription.

**IMPACT ON TRANSPORTATION**

Pre-Pandemic	Public transport	89	49%
	Uber, Ola, etc	2	1%
	Private vehicle	87	48%
	Walking	2	1%
During Pandemic	Public	6	3%
	Private	104	58%
	Uber, Ola, etc	2	1%
	Walking	3	2%
	Not travelling at all	65	36%

Source: Primary Data

The pressure on organizations has shifted from moving citizens to keeping their core operations running with only a limited workforce. This industry too has been facing a shortfall in revenue. Keeping in mind the falling revenues the transport companies should rethink their long-term plans as most consumers are changing their plans while opting for a vacation abroad or using transport for daily commuting. Most people will be opting out of using public transport like trains, buses etc. those who can afford to pay for cabs will be opting for that, and that too without pooling. Uber keeping up with the changing times has come up with precautions, it has outlined the number of people allowed in a cab, passengers will only be allowed sit in the back seat,

drivers will be asked to upload selfies in order to prove that they are wearing masks, drivers will be encouraged to cancel rides if passengers do not follow any norm. The mindset of consumers plays an important role as most people have started to avoid travel, but for those who cannot avoid corporate offices are now offering separate cabs for employees in Delhi and NCR, the state buses will also now offer only 20 people at a time and sanitizing the bus regularly such initiatives will help the transport market to pick pace slowly and steadily.

As per our survey there has been a 46% drop in use of public transport however only a 10% rise in use of private vehicles. This is a result of government putting a ceiling on the capacity of people that will be



allowed to travel in public vehicles at a time and also making some modes of public transportation available to only certain essential workers. Also, as

many people are working from home or have lost their jobs as a result of the pandemic 36% are not travelling at all.

#### POST-PANDEMIC PLANS

Buy a house, vehicle, etc	2	1%
Meet up with friends and family	75	42%
Travel abroad/go for a small vacation	23	13%
Get back to office/college	24	13%
Other	56	31%

Source: Primary Data

Majority population is eager to meet up with friends and family as lockdown had restricted people's movement and the fear of contracting and spreading the disease was high. 13% population is waiting to travel abroad or even take a vacation nearby which is again restricted due to international flying norms. 13% of the population also seems eager to get back to work as at staying at home must be a very unproductive experience for them. Pent up demand for buying a house or vehicle only made 1% of the respondents. Other 31% responses said things like going shopping, dining out, etc.

### CONCLUSION, FUTURE SCOPE AND LIMITATIONS OF THE STUDY

#### Conclusion

From the following research we can conclude that consumers spending on restaurant and other outside food drastically went down during the pandemic however it looks like it will eventually get back to normal once everything opens up without restrictions and the fear of the disease goes away. Consumers spending on shopping also went down as many malls were closed and not a lot of people were ordering online but people seem eager to step out as there is significant pent up demand in consumers for returning back to the malls. A significant number of people thought that they overstocked when the lockdown was announced and spending on groceries went up. Overstocking might also become a habit as consumers realize it is more convenient to store than to run to the store to grab something last minute. However, selling groceries in the semi-urban area was not a hit since many people were of the opinion that shopping groceries in store were more convenient. Paid OTT subscriptions saw a rise indicating increase on OTT spending of consumers however, a significant amount of the population said they will not or were not sure about continuing this added expense. Transportation spending for those who moved from public to private transport has gone up but a huge population is not travelling at all and for them this spending reduced.

Further, with the trending slogan vocal for local and Atm Nirbhar Bharat there has been a slight

increase in the usage of local made products than global products. The pandemic compelled our prime minister to reassert the Swadeshi roots of the country in a 31- minute speech and he also announced a 20 Lakh crore package to revive indigenous talent and hidden skills. After this speech many international businesses have announced their plans promising huge investments, from cars defense equipment's to tech parks and much more. Payments systems during the crisis have been shown that they are dependable and durable and have a high level of confidence from the consumers, but with the closure of businesses and the lockdown have resulted in low transactions. As now the pandemic is still unfolding and we can see an increase in the number of cases, the impact on behaviour of consumers will become clearer, in order to assist the recovery from the pandemic and starting of the new normal it is better we start using the digital payments method in order to evolve at a better rate.

#### Future Scope

1. Similar type of survey can be conducted for rural and urban area populations and also with population of different income groups.
2. How lockdown has given a to early digitalization in India and how consumers are adapting these changes.
3. More research can be done taking the population of labour class in India and how they managed throughout the pandemic.
4. Which pandemic habits continued and which old habits returned will be an interesting area of research when things get back to normal.

#### Limitations of the Study

1. The study concerned only COVID-19 disease and consumer behaviour in the lockdown timeframe. If other factors such as the market situation, the demand and supply of goods, the transport of goods, the legal aspects of the lockout, the socio-economic impact of the disease could have been considered, the analysis would have had more comprehensive results.
2. Due to nationwide lockdown and social distancing norms visiting the consumers



personally was not feasible.

3. Possibility of sampling error due to time constraints and misinterpretation of certain questions by the respondents.

## ACKNOWLEDGEMENT

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## ANNEXURE

### ● Google Form Questionnaire

Impact of COVID-19 on Consumer Behaviour

A survey to analyze how the current global pandemic has affected consumer habits and what to expect from consumers in the near future.

1. Name
2. Age
3. How often did you order food online/home delivery before the pandemic started? (Zomato, Swiggy, etc)
  - Once or more than once a week
  - Once or twice a month
  - Once every 6 months
  - Once a year



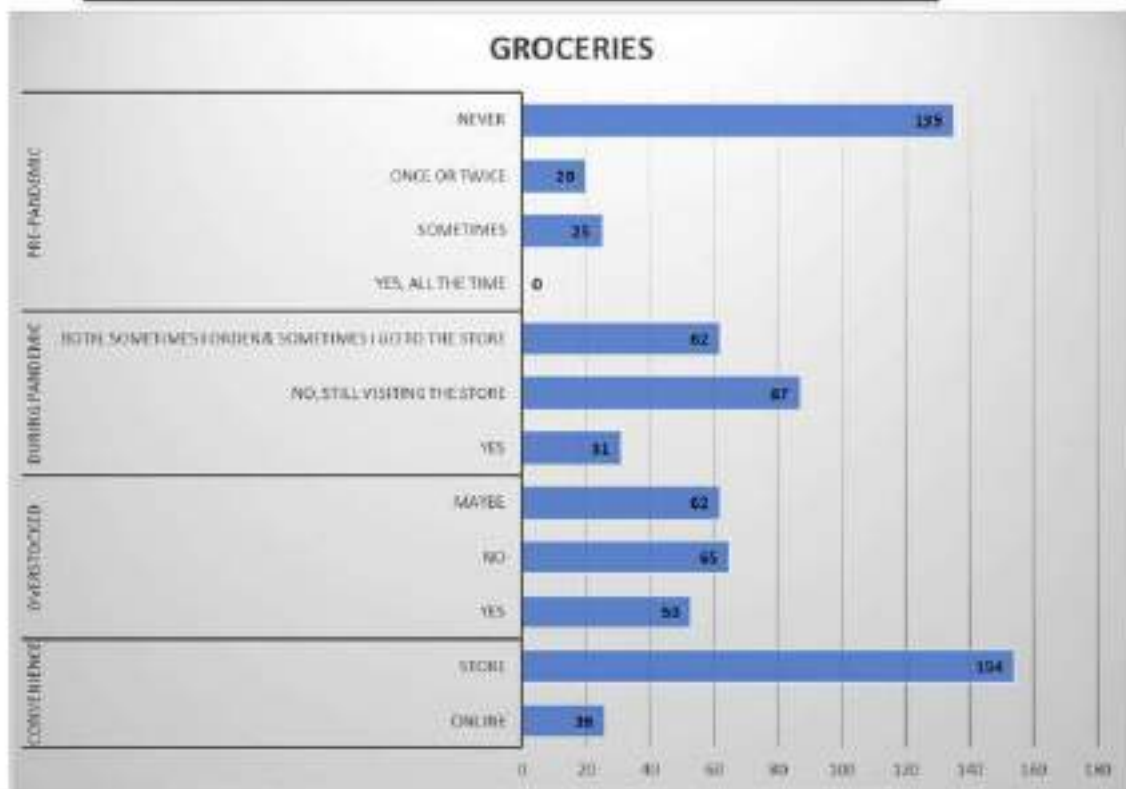
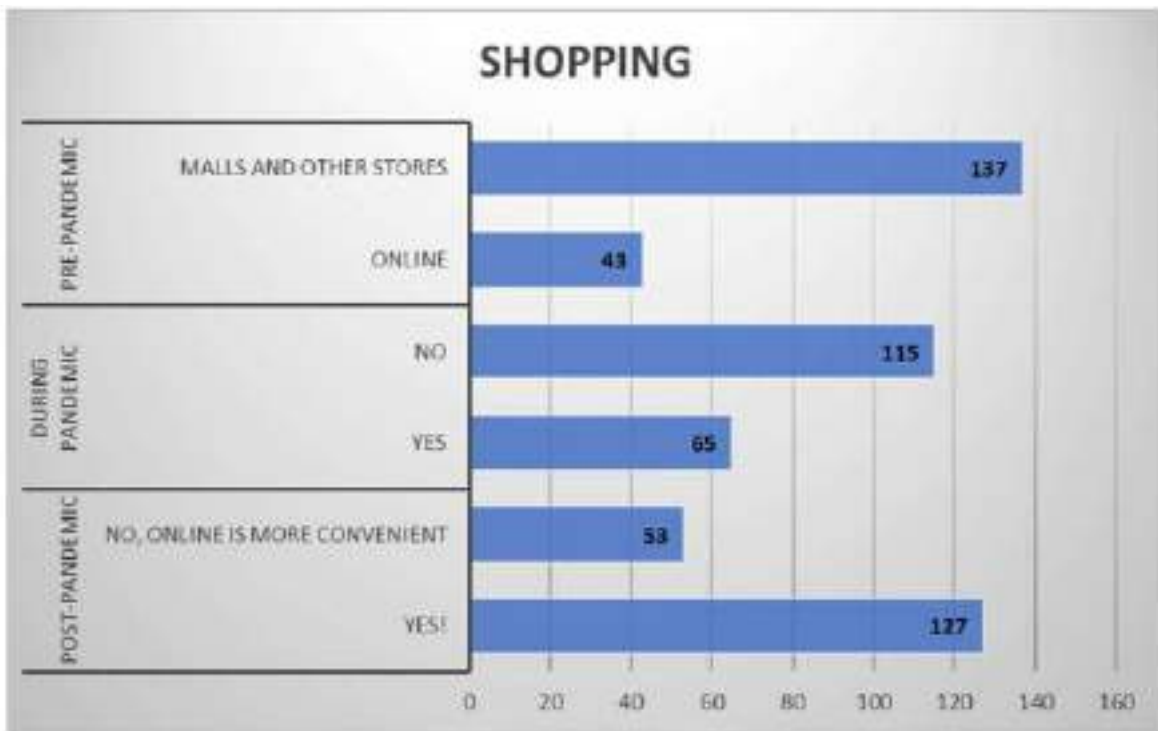
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4. How often are you ordering food online/home delivery since the lockdown was partially lifted? (Zomato, Swiggy, etc)
    - Once or more than once a week
    - Once or twice a month
    - Not ordering at all as a precaution
  
  5. Once the pandemic is over are you excited to visit your favourite restaurants?
    - Absolutely YES!
    - No, ordering online is more convenient
  
  6. Your favourite shopping destination before the pandemic started?
    - Online
    - Malls and other stores
  
  7. As malls were shut due to lockdown, did you shop for clothes online?
    - Yes
    - No
  
  8. Are you excited to visit your favourite malls to shop once the pandemic is over?
    - YES!
    - No, online is more convenient
  
  9. Did you order groceries online before the pandemic started?
    - Yes, all the time
    - Sometimes
    - Once or twice
    - Never
  
  10. Did you order groceries online/home delivery during the pandemic?
    - Yes
    - No, still visiting the store
    - Both, sometimes I order & sometimes I go to the store
  
  11. Do you think you overstocked your groceries and other essentials after the announcement of lockdown?
    - Yes
    - No
    - Maybe
  
  12. Which mode of buying groceries do you find more convenient?
    - Online
    - Store
  
  13. How many OTT (Netflix, Hotstar, etc) subscriptions did you have before the pandemic?
    - None
    - 1 or 2
    - Between 3-5
    - More than 5
  
  14. Did you get any new OTT (Netflix, Hotstar, etc) subscriptions during the pandemic?
    - Yes
    - No

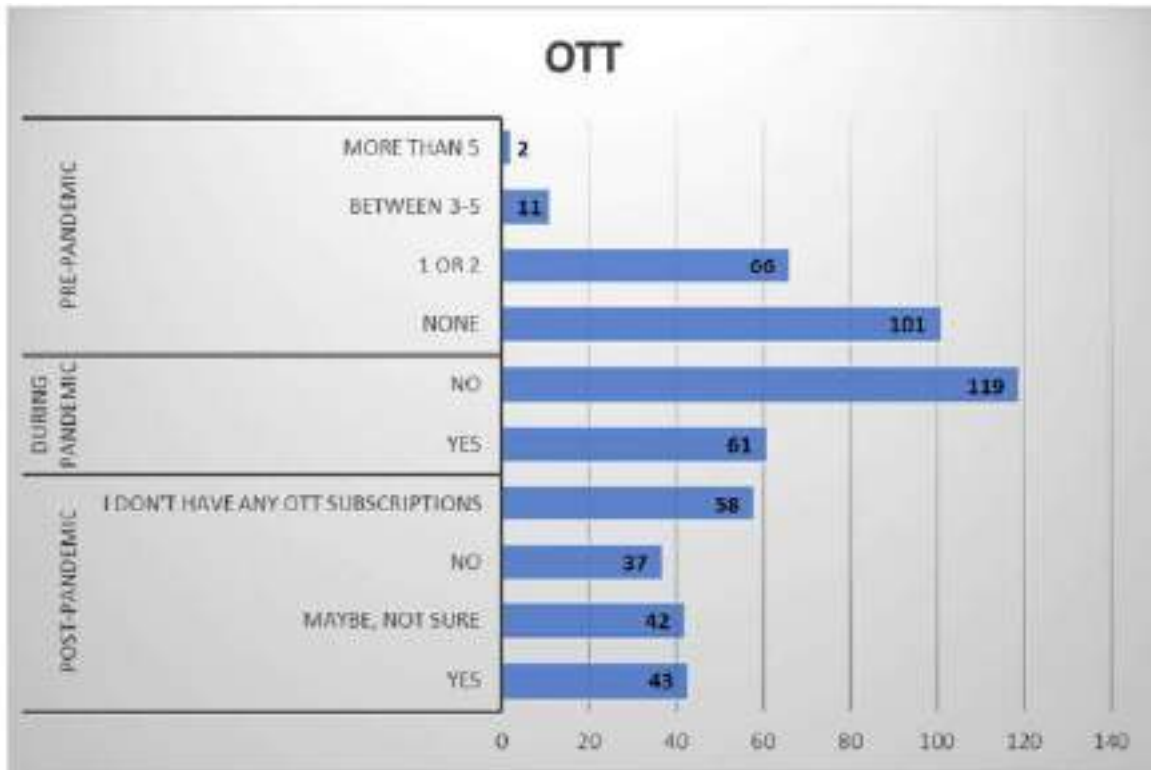


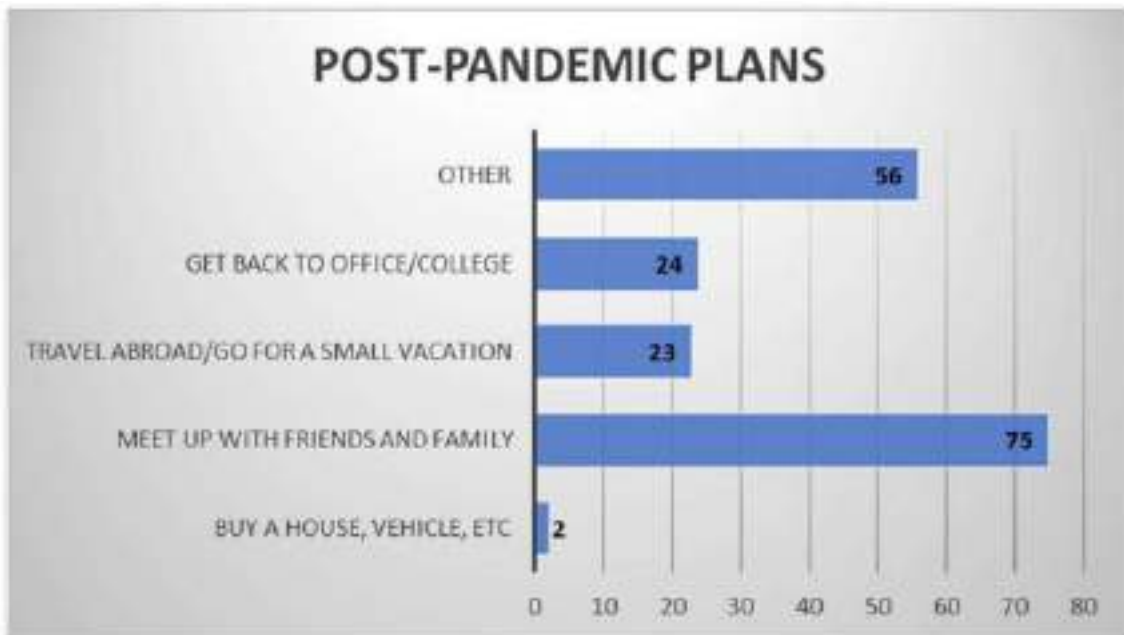
15. If yes do you plan to continue paying for these subscriptions?
- Yes
  - Maybe, not sure
  - No
  - I don't have any OTT subscriptions
16. How did you travel to work, college, park etc before pandemic?
- Public transport
  - Uber, Ola, etc
  - Private vehicle
  - Walking
17. Which mode of transport are you using in the current situation?
- Public
  - Private
  - Uber, Ola, etc
  - Walking
  - Not travelling at all
18. Once the lockdown is completely lifted what are you planning to do first?
- Buy a house, vehicle, etc
  - Meet up with friends and family
  - Travel abroad/go for a small vacation
  - Get back to office/college
  - Other

## RESPONSES











# THEORETICAL AND EXPERIMENTAL STUDIES OF THE CALCULATION OF THE TIME SPENT ON THREAD AND YARN FILLING ON A SEWING MACHINES

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## ABSTRACT

*In this article, a special device design has been developed to prevent the time spent sewing the item on the sewing machine, the time spent filling the yarn, and the excess electricity used to fill the yarn. It was found that when filling the shuttle tube to the thread, the machine is stopped and after the thread is filled, it takes 2-2.5 minutes for the sequence of operations to be carried out, which saves time and increases productivity by 1.5 times.*

*In this article, a special device design has been developed to prevent sewing on the sewing machine, the time required for sewing, and excessive energy consumption of the yarn. It was found that the machine is interrupted due to threading, and after the completion of the thread, it takes about 2-2.5 minutes to complete the machine, which improves productivity by 1.5 times.*

**KEY WORDS:** *Sewing machine, strut, needle, needle mechanism, thread, tube, body hose, mock, tube.*

## INTRODUCTION

Labor productivity, durability and quality of the sewing machine depend mainly on the design of the shuttle mechanism. The shuttle parameters affect the tube replacement time, the needle thread stiffness.

Suites can be conditionally grouped according to location, movement, appearance, and tube structure.

1. Divided into the following groups by location:

a) mo, which is located in the vertical plane and the axis of rotation is horizontal kilar;

b) Shuttles located in a horizontal plane with a vertical axis of rotation;

c) Shuttles located under the platform.

2. The movement is divided into:

a) forward-reversing shuttles;

b) Rotary shuttles;

c) Rotary shuttles

3. There will be shuttles in the following views:

a) Cylindrical shuttles are mainly used in low-speed household sewing machines;

b) Rotary shuttles are vibrating and are more commonly used in semi-automatic sewing machines;

c) Lycopene shuttles are mostly flat rotating and are mounted on tube holders. Such shuttles are widely used in high-speed sewing machines [1].



The shuttles can be centered or decentralized. The shuttle path coefficient  $K_m$  is important in the shuttle price formation process and can be found by the following formula:

$$K_m = \frac{\varphi_m}{\varphi_0}$$

where:  $\varphi_m$  - is the angle of rotation of the main shaft from the moment the needle thread ring for the shuttle is hung and rotated around it;

$\varphi_0$  - is the total turning angle of the main shaft [2].

On sewing machines, the  $K_m$  coefficient is in the range of 0.25 - 0.42. The main technological disadvantage of the shuttle device is that it takes a long time to replace the tube. 3. Figure 1 (a) shows a graph of the change in time taken to replace the tube (1) and to tie it when the thread is broken (2), as well as the dependence of machine labor productivity  $Q$  on the tube size  $V_n$  (3).

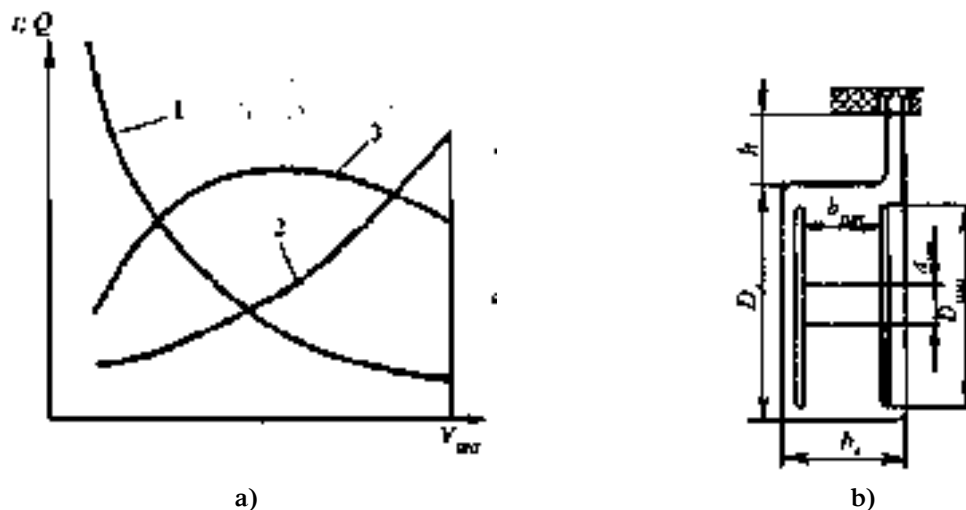
Research shows that the reliability of the rope around the shuttle yarn length  $L_m$  will be spending almost a needle thread  $L_b$  length is equal to the ratio:

$$K_u = \frac{L_m}{L_b}$$

The length of the needle thread to be used for one stitch is found as follows:

$$L_b = (C + \Delta)\eta_T$$

Where:  $C$  - line step;  $\Delta$  - is the thickness of the material being sewn;  $\eta_T$  - coefficient of tension  $k$  of the price [3].



**Figure 1. Graph of change of time  $t$  and labor productivity  $Q$  with respect to tube volume  $V_n$  (a), as well as the diameter section of the shuttle (b)**

We determine  $L_m$  from the diametrical section of the shuttle.

$$L_m = 2K_0(D_m + b_m + h)$$

Or

$$D_m \pm b_m = P = \frac{L_m - 2n_0h}{2K_0}$$

Where:  $n_0$  - is the coefficient indicating that the shape of the ring deviates from the allowable;  $h$  - is the distance from the trajectory of the shuttle to the needle plate;  $P$  - shuttle parameters.

The volume of the tube is found by the following formula:

$$V_n = \frac{\pi}{4}(D_n^2 - d_n^2)b_n$$

Where:  $D_n$  and  $b_n$  - are the diameter and width of the tube;  $d_n$  - is the diameter of the tube



The operating time of the sewing machine in the tube replacement interval is determined by the following formula:

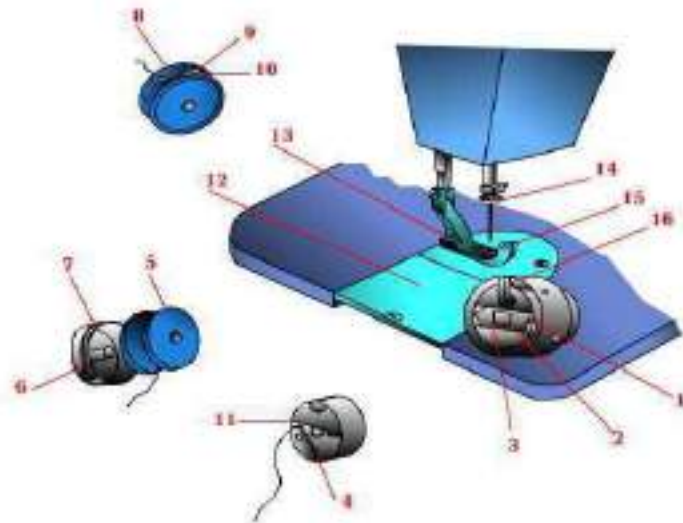
$$T = \frac{60L}{l_{cm}n} = \frac{60D_n^2(1-d^2)b_n}{d_n l_u n} \zeta_{YP}$$

Where:  $H$  - is the number of bets generated per minute,  $D_r$  - The diameter of the [4].

## RESULTS AND DISCUSSION

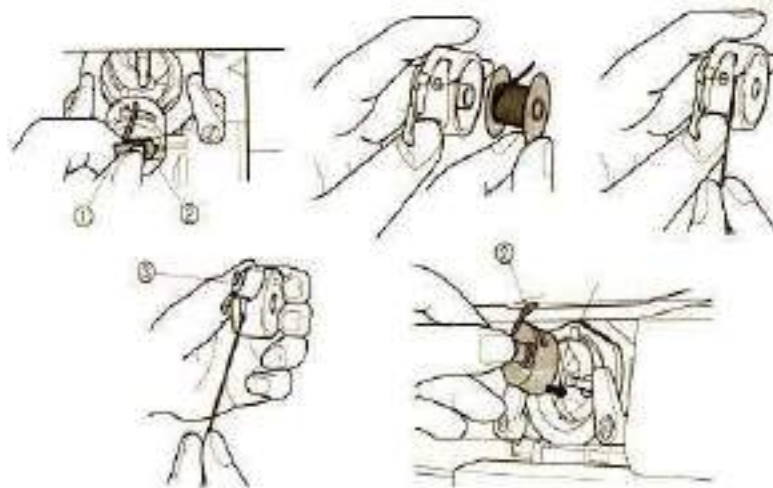
### Results of experimental studies of the proposed yarn filling device

Before using the machine to wrap the thread around the tube, the thread is removed from the needle eye and the kick is lifted by turning the knob clockwise. The electric drive is activated by lifting the handle at the bottom right of the desktop cover.



**Figure 2. Tailor on a 1022-M sewing machine detailing scheme.**

When the pedal is depressed, the rotational motion from the electric drive is transmitted to the car's flywheel and main shaft via a belt drive. After a sufficient amount of thread is wound on the tube, the spindle stops. The tube is removed from the spindle, leaving enough thread tip to remove the bottom thread from the shuttle device. When placing (tying) the lower thread on the shuttle, hold the tube (Fig. 2) in the right hand and put it on the hollow rod 7 of the tube cap 6, which is in the left hand. Insert the end of the thread from the tube cap into the groove 10, and when the plate-shaped spring 8 is brought to the bottom, its tongue is moved behind the 11. The sliding plate 12 is pushed to the left and the needle 14 is raised by turning the flywheel, the kick should also be raised [5].



**Figure 3. Scheme of tying the bottom thread on a sewing machine type 1022-M**



When the shuttle thread is finished, to replace it with another filled tube, first stop the machine (Fig. 3, 4), remove the shuttle tube and switch the machine to idle mode, install the tube on a special device and fill the thread from the spool to the tube. The sewing process is then continued by setting the thread-filled tube in place. This leads to a lot of time spent sewing the item and in turn a decrease in work productivity. Therefore, it is important to improve the sewing machine by filling the tube with yarn at the same time, ie during the sewing process.



**Figure 4. The work to be done during the automatic filling of the shuttle tube**

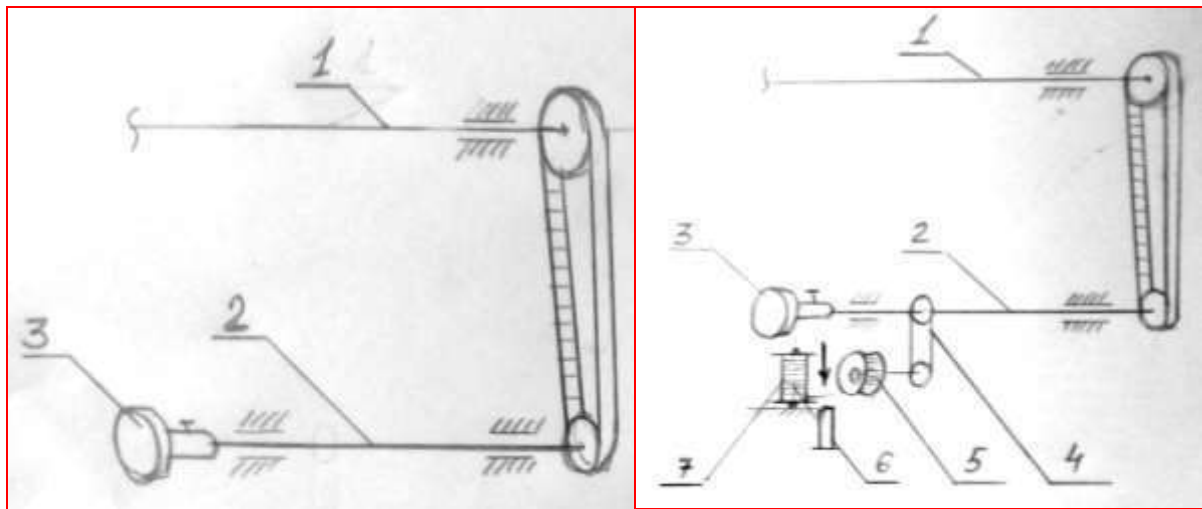
In order to overcome the above shortcomings, by continuing to sew it in place without removing the shuttle tube, it promotes the time it takes to fill the thread and the electricity saved for this work [6].

The extra time spent sewing in the preparation of the item also leads to a slight decrease in work productivity. At present, these indicators do not meet the technical requirements. It is advisable to do this to fill the tube without stopping the machine, but while the sewing process is in progress. For this reason, a pulley with a diameter of 20mm was installed by lifting the head of the sewing machine (Fig. 5) to install the thread filling device on the tube 5, so as not to interfere with other details in the location closer to the shuttle device of the shuttle shaft. Attach a second pulley of the same size to the car body and attach it to the shuttle tube knocked. The rotary motion to the tube is transmitted from the shuttle shaft by a belt drive 4 from a pair of newly installed pulleys (Fig. 5) [7-15].



**Figure 5. The process of installing a shuttle automatic filling device**

Tube 5 is filled from a separately placed yarn spool 7 (Fig. 6). To do this, attach the thread from the spool to the spare tube and attach it to the second pulley shaft, and the sewing process can continue on the machine. When the tube is full of thread, press the button 6, which is attached to the tube, and a specially mounted knife for cutting the thread from the top moves downwards and stretches the thread. When the shuttle thread is finished, the machine is stopped for a moment, replaced with a tube filled with spare thread, and the process is repeated.



**Figure 6. Automatic filling device of the shuttle pulley existing and proposed scheme**

1st head shaft, 2nd shuttle shaft, 3rd shuttle, belt drive, 5th tube, 6th tube full sensor button, 7th thread spool [16-20].

## CONCLUSION

Experiments have shown that in order to sew a single suit pants, you need to fill the shuttle thread into the tube 4-5 times. The proposed installation of an additional automatic thread filling device saves time spent on thread filling when used. Considering that it takes 2-2.5 minutes to stop the machine and fill the yarn each time, it takes 13-15 minutes for the item to be fully sewn. If you save such time in each machine, you will save at least 1 hour to fill the thread when sewing 4 suits during the shift. If the time saved is spent on sewing, you will be able to sew 5 suits instead of 4 during the shift. This means that if the company sews suits on 10 of these sewing machines, it will be possible to increase productivity by 10-12% by sewing 10 suits during the shift due to the saved time.

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## **NEW IT TECHNOLOGIES IN TEACHING ENGLISH IN SECONDARY SCHOOLS**

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### **ANNOTATION**

*The aim of present paper is to make a methodology of teaching English language at school in accordance with development of the modern IT-technologies. It is possible to solve a variety of didactic problems at English lessons by means of the Internet: to form skills and abilities of reading using materials of the global network, to improve pupils' skills of writing, to widen vocabulary and to create a sustainable motivation in studying English language.*

**KEYWORDS:** *IT, technology, distance learning, innovations, effectively, teaching.*

### **NEW IT TECHNOLOGIES IN TEACHING ENGLISH AS A SECOND LANGUAGE**

One of the most revolutionary achievements for last decades that has considerably affected educational process all over the world became the creation of the world computer network which have received the name the Internet that literally “the international network” (English international net) means.

The internet is seen by many as one of the most powerful innovations ever invented, and with good reason. The internet figures increasingly in our lives that practically no aspect is untouched by it. One such area that the internet has had phenomenal impact is on education. Because it enables people to reach out across cultures, the possibilities it opens up for the teaching profession has become boundless.

The internet's authenticity is also a factor. It enables students to gain access to real information and real-life experiences. They are no longer limited to using textbooks as their source of information as the internet offers an assortment of resources on a variety of topics.

The internet also makes learning practical. Students are empowered by the Net because it enables them to study independently. They have access to information round the clock and they can choose which information to take in. This promotes learning because students are active participants,

learning how to do things themselves. They don't really need to wait for the teacher to give them the go signal as they can even access the internet when they are at home.

Interaction is enhanced considerably when using the internet for teaching. It enables students and teachers belonging to different parts of the world to talk to each other and it allows students to talk to other students from different countries. It can also promote interaction within the classroom.

Computers and the internet have become very popular among children over the years, and since student interest is already there.

As you can see, the internet is an empowering tool both for the teacher and his students. If used effectively and in accordance with learning goals, there is no reason it shouldn't continue to be a powerful educating tool. As for students, their learning is no longer passive because the internet really does offer numerous activities for them to apply what they have been taught.

The machine can “friendly” communicate with the user and “support” him at any moment, however it never will show signs of irritability and will not let the user know that it has become bored.

Communicating in the true language environment, provided by the Internet, pupils appear in the present life situations. Involved in the decision of the wide circle of significant, realistic, interesting and achievable problems, pupils are taught spontaneously and adequately to react on these



situations. All of this stimulates creation of original statements, instead of sample manipulation with the language formulas.

The development of education is organically connected today with level of its information potential. This characteristic line in many respects defines both a direction of evolution of the formation, and the future of all society. For the most successful orientation in the world information field it is necessary that the pupils receive both information and computer-screen culture and the priority in information search is more given to the Internet.

As the information system, the Internet offers the users a great variety of the information and resources. The base set of services can include the following:

- e-mail;
- teleconferences (usenet);
- videoconferences;
- possibility of the publication of own information, creation of own homepage and its placing on a Web-server;
- access to information resources:
- help catalogues (Yahoo!, InfoSeek/UltraSmart, LookSmart, Galaxy);
- search systems (Alta Vista, HotBob, Open Text, WebCrawler, Excite);
- conversation in a network (Chat).

These resources can be actively used at a lesson.

## **USING THE INTERNET IN TEACHING AUDING, READING AND WRITING**

The site of Lucent Technologies Company, its division Bell Labs, allows to hear the pronunciation of any phrase in a foreign language.

On a site <http://www.bell-labs.com/project/tts/index.html> it is possible to choose one of seven languages - English, German, French, Italian, Spanish. Then it is necessary to type something in the window related to the chosen language. In some seconds the written will be pronounced in a little mechanical way but still a voice one. It is possible to sound any phrase from the textbook or any other source and on-line sources will be especially useful as pupils will not have to interrupt themselves by retyping of the text. All texts that were pronounced are not simply to be heard but can be also saved to a disk and available to be listened through not entering Internet every time.

The Internet is an excellent means for getting the information on the latest events in the world. Thus, it is possible to transform the Internet with the help the class room into the news agency, and the pupils into perfect class "reporters".

Practically all significant newspapers in the world have their web-pages. To find out where and what newspapers exist it is recommended to offer the pupils to visit MEDIA LINKS page offering references to set editions.

Media sites in English:

Let us have a look at The Washington Post page. Everything what it is possible to read about in the newspaper is visible on the first page as it represents a combination of the advertising poster and the contents. Here are the names of the most important articles with endurances from them which are presented according to authors; those ones should draw attention of readers to the core issues that are discussed in the articles. As any periodicals edition, web -newspapers are divided into headings and subheadings, i.e. have a friendly interface addressed to the user allowing pressing of the button of the mouse to pass directly to the necessary section and an interesting article. The Washington Post has 5 basic headings: news, style of a life, sports, advertisements and market news.

BBC World Service, The Washington Times, The New York Times - all these and others news agencies have similar user-friendly structure of a tree references. The name and quantity of headings can vary from publishing house to to publishing house, however all of them cover the basic spheres of ability to live person.

BBC World Service (<http://www.bbc.co.uk/worldservice>) gives the possibility not only to read but also to listen to the news in many languages and it is possible even to choose a suitable level of possession of English and to listen to news in mode LEARNING ENGLISH.

It is possible to suggest for pupils to work in groups of two or three to investigate articles covering all aspects of life: leading articles, sports, weather, culture. Advantage of such work consists in a full involvement of all class in a combination to differentiation of tasks: strong pupils can be engaged in research of more difficult articles, while to weaker ones it is possible to charge the report on weather conditions or something from area of cultures.

In addition to work on skills of reading and speaking it is possible to fill up pupils' vocabulary. For this purpose it is necessary to suggest to pupils to make the dictionary articles based on the read information. Acquisition of the new is possible with grammatical skills examples of which are met in articles.

The Internet can and should be used not only passively but also actively. Pupils can test in a role as not only consumers and suppliers of the information. Site THE YOUNG VOICES OF THE WORLD is the open forum representing a certain publishing house where interested persons can publish their works having made their property of a millions-strong



audience and having stated for discussion of the opinion. All works are accompanied by the electronic address of their founder that realisation of a feedback and to setting of discussions allows to.

Authors of article Language Learning Activities for the World Wide Web

mark huge possibilities of WWW on use and creation of the two-language pages providing optimum results of integration the Internet in the process of the lesson for both participating parties (a class studying English in Russia and a class, studying Russian in the USA or England). Here are only some of the possible discussed themes: the review of books, fairy tales, newspaper articles, telecasts, citations and sayings, statements, jokes and riddles, local recipes, the menu, folk remedies, folklore, sports, school and its problems etc.

Dialogue in a virtual reality is carried out by means of the electronic mails.

The international exchange of letters can be carried out in any class and on any level of a language. Besides purposeful use of studied language establishes friendly contacts and studying the culture; electronic correspondence has the advantages in comparison with the paper: it faster, more conveniently and more cheaply.

For reception of optimum results of such kind of activity it is necessary to stop on some problems which can arise in the teaching course.

Not all the letters are being answered and that creates the deepest disappointment. To prevent it, it is possible to suggest for pupils to communicate with several partners at the same time (in the same group or in parallel, in other city and even the country).

Besides the formal language experience got with the help of telecommunications, it is impossible to deny the development of the intercultural competence.

Moreover, it is possible to assert safely, that for today use of Internet resources, including e-mail, the most effective and accessible way to manage cross-cultural skilld is by literacy in the conditions of a real dialogue.

As mentioned above, for increase of efficiency use it was already marked that e-mail process should be purposeful. The set of tasks can be the following:

advertise search of friends on different sites on correspondence;

write the information on;

send some messages, for example, 2-3 in a week;

to receive the answer, set in the end of the message questions interesting to you;

accept not less than three answers to the messages;

give the full report on the done work: that you have made, that from it it has turned out, what new facts you have learnt, how you estimate the task. Include in the report the letters and answers to them.

Pupils do not simply share the information with partners from the different ends of the globe but they work on one project in cooperation: identify the topic, develop research methods, design the stand where the received results are located. The project theme can be chosen from already offered ones by someone on a sheet-server or to place there the and to wait a reciprocal contacts. Page Email Project Home Page offers to research the following problems: drugs, stress, a food, the power, influence of advertisements on the person, health, comparison of the prices for the goods in different regions, national medicine and many other things.

## **INTERNET AS MEANS OF COMMUNICATION**

Now the priority is given to communicativeness, interactivities, authenticities of dialogue, to language studying in the cultural context, autonomy and a training humanisation.

Today new techniques with use of Internet resources are opposed to traditional teaching of foreign languages.

Teachers are convinced till now, that "vocabulary + necessary structures = language".

The intelligence will not take effect without certain motivation and it is rare functions without an element of emotions, namely these components often are not included into methodical material. To learn to dialogue in the foreign language it is necessary to create real, present life situations which will stimulate studying of a material and to develop adequate behaviour. This error tries to correct new technologies, in particular does the Internet.

Use of knowledge is known also as skills, abilities are based on carrying over, and carrying over depends first of all on what teaching conditions are and how adequate the pupils are to those conditions. Hence, to prepare the pupil to participation in process of dialogue speaking in another language it is necessary to create appropriate conditions in class. It also defines the essence of communicative teaching which considers that teaching process is the model of process of dialogue.

Internet use in the communicative approach is motivated as well as possible: its purpose concludes in the interest of the pupils in studying of a foreign language by means of accumulation and expansion of their knowledge and experience. Pupils should be ready to use language for the real communications out of employment, for example, during visitings of the country of the studied language, during reception of foreign visitors of the



house, at correspondence, at an exchange of audio- and videocassettes, results of tasks, etc. with schools or friends in the country of studied language. Thus the term communicativeness should not be understood narrowly, purely pragmatically. This approach is realised on the Internet, it involves pupils by concentrations on their interesting themes and texts of possibility by its choice of texts and problems for achievement of the purposes of the program.

Communicative training to language by means of the Internet underlines the importance of development of ability of pupils and their desire it is exact and to a place to use a studied foreign language for effective dialogue.

Teaching in original language the Internet helps with formation of abilities and skills of informal conversation, and also in teaching of vocabulary and grammar providing original interest and, hence, efficiency.

Moreover, the Internet develops skills, important not only for the foreign language. First of all it is connected with cognitive operations: the analysis, synthesis, abstraction, identifications, comparisons, verbal and semantic forecasting and anticipation etc. The Internet develops social and psychological qualities of the pupils: their self-confidence and their ability to work in collective; creates favorable for teaching atmosphere, acting as means of the interactive approach.

Interactivity not simply creates real situations from a life, but also

Forces pupils to react adequately to them by means of the foreign

Language. And when it starts to turn out, it is possible to speak about the language

The competence. Let even in the presence of errors. The main ability is spontaneous,

Harmoniously to react to statements of others, expressing the feelings and

Emotions, being arranged and being reconstructed on the move i.e. we can consider

Interactivity as a way of self-development through the Internet: possibility

To observe and copy language use, skills, samples of behaviour

Partners; to take new values of problems during their joint Discussions.

The Internet can undoubtedly be used as the effective appendices for development of grammatical, lexical skills and abilities. Here are presented some possible lexical, grammatical, phonetic exercises, tests for reading, grammar, IQ - Tests etc. Teachers or pupils can find such sites on WWW.

## WEB- SITES DEVELOPING KNOWLEDGE OF ENGLISH LANGUAGE

World Wide Web with a large quantity of sites and homepages giving the information on all tastes is a boundless field of activity in respect of use at the lesson of a foreign language for development of the intercultural competence.

*Site «Virtual reality»* is a meeting of linguistic and non linguistic original materials collected on a web-server. Its importance and motivation consists of the fact that it directly brings slices of true culture of the country of studied language in a class room.

*City Net Site* does possible travel to the different countries, visiting parks, monuments and any other sights. Here it is possible to find all about the chosen country – from photos of monuments to the full report on natural resources and art in studied language. City Net is an excellent navigator. It is possible to suggest for pupils to travel as tourists or Guides. They can pack luggage and recommend necessary things to the clients to call by contact phone of airlines and hotels for reception of the information on presence of tickets and empty seats to fill forms on visa and passport reception. As the report about the done work it can be suggested for pupils to create a picture album or a diary of their journey.

*Site Metro Link* (the Underground <http://www.subwaynavigator.com>) is a site that will allow to make travel on the largest cities of the world by the underground, to study them by routes and to learn how to get there from certain parts of a city. Necessary instructions are offered in English.

It is possible to make a route or to travel at random. Names of stops are given in a route chart, and the program itself calculates approximate time of movement, remembers all used routes and stations. Pupils can be suggested to create the report including a route of travelling, the description of the sights which they have met in a city station, spent time. For example, if you travel to Berlin, it is possible to go from metro station Charlottenhof and to go to stops Area Roenthaler. The program defines that 50 minutes are required approximately for this and shows what stations will be on the way and what sights can you get to if to stay there in a city.

On this route it is possible to get to the Charlottenburgsky palace and in Egyptian Museum, in Grunevald for those who loves wood, and in the Zoo. The report can have the form of a diary of travelling and album of photos, the guidebook for visitors of the city which will mark interesting places of a city and the nearest to them metro stations.

*Site WILD-e* offers the consideration of aspects of managing and problem of being a teacher of foreign languages. Here it is possible to read actual



statements and to share them, to investigate the world of metaphors, to give the variants of answers in to heading "Tell, why?" (Can you tell me why?) on interesting questions, as "Why to a writing of theoretical treatises on pedagogics suppose the people who do not have anything general with practice of teaching? (" Why are there so many things about teaching and educational administration that are so pointless and stupid? ") to share experience of last lesson etc.

*America's homepage* offers travelling on states and cities, acquaintance to history, culture, a way of life Americans.

Thus, using information resources of a network the Internet, it is possible to integrate them into educational process to solve variety of didactic problems more effectively at a lesson of English language. The following materials were used in this course paper to achieve the aim of research.

Materials of a network of different degree of complexity were used to form skills and abilities, to improve abilities of auditing on the basis of the authentic sound the following network texts from the Internet were used, to improve abilities monologic and dialogical statements on the basis of the problem discussion, presented by the teacher or someone from pupils, network materials; to improve abilities of written speech, individually or in writing making answers to partners, participating in preparation of abstracts, compositions, other epistolary products of joint activity of partners; to fill up the vocabulary, both active, and passive, lexics of the modern English language reflecting a certain stage of culture development, social and society political system; to get acquainted with culture aspects including speech etiquette, features of speech behaviour of the various people in dialogue conditions, features of culture, traditions of the country of studied language; to form steady motivation of activity of pupils speaking another language on the basis of regular use of "live" materials, discussions and not only questions to textbook texts, but also actual problems that are interesting to all and everyone.

During work with computer technologies the role of the teacher varies as well, and its primary goal is to support and direct development of the pupils' personality, their creativeness in search.

In these conditions it is inevitable revision of the organizational forms which have developed today of study: the increase in independent individual and group work in pupils, increase in volume of practical and creative works of search and research character. In the given kind of cooperation the Internet and the lesson design form the educational activity that is often used.

The project assumes independent research work of pupils where the process of children search is for the decision of some complex problem.

The cybernetic space contains huge cultural and didactic potential which is already used in teaching all over the world.

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## RELEVANCE OF TEACHING FOREIGN LANGUAGES AT A MEDICAL UNIVERSITY

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### ANNOTATION

*This article discusses the relevance of teaching foreign languages (including Russian as a foreign language) in medical universities in Uzbekistan.*

**KEY WORDS:** *foreign languages, professional sphere, education, skills, abilities, students' speech.*

### АКТУАЛЬНОСТЬ ПРЕПОДАВАНИЯ ИНОСТРАННЫХ ЯЗЫКОВ В МЕДИЦИНСКОМ ВУЗЕ

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### Аннотация

*В данной статье идёт речь об актуальности преподавания иностранных языков (в том числе и русский, как иностранный) в медицинских вузах Узбекистана.*

**Ключевые слова:** *иностраннные языки, профессиональная сфера, образование, навыки, умения, речь студентов.*

Осуществляемое в последние десятилетия реформирование системы высшего профессионального образования в Узбекистане

учитывает перспективные тенденции мирового развития в этой сфере. В соответствии с этим меняется не только роль, но и структура



образования в целом и иноязычного образования в частности. В современном мире требуются квалифицированные специалисты, владеющие иностранными языками на высоком уровне. Именно они призваны стать той интеллектуальной элитой, которая должна решать существующие и предотвращать возникающие социально-экономические проблемы, работать в интересах безопасности Узбекистана, укреплять её внутреннюю стабильность и международный авторитет.

В связи с этим требования к качеству подготовки специалистов в определенной профессиональной сфере, способных осуществлять свою деятельность на иностранном языке, в системе высшего языкового образования в нашей стране постоянно повышаются. Современные условия жизни, требования к будущему специалисту, новые приемы принятия на работу требуют поиска новых подходов к подготовке будущего специалиста. Владение иностранным языком становится необходимым качеством личности. Научно-техническая революция, повлекшая за собой информационный взрыв, обусловила вовлечение возрастающего числа специалистов в непосредственное осуществление международных научно-технических связей и расширение культурных и деловых контактов. Нормальное функционирование системы международной информации немисливо без специалистов, реально владеющих иностранными языками, способных быстро извлекать информацию из иностранных источников без переводчика, излагать ее на родном языке и использовать в научной работе. Всем известно, что распространение и изучение иностранных языков является одним из важнейших условий человеческого прогресса. Языки нужны для того, чтобы получать знание и уметь использовать их в профессиональном общении. Изучение иностранного языка в медицинском вузе рассматривается как обязательный компонент профессиональной подготовки специалиста с высшим образованием. Современная концепция языкового образования в медицинском вузе предполагает создание такой системы подготовки специалиста, которая позволит ему легко адаптироваться к динамично изменяющимся условиям профессиональной деятельности, т.е. нацелена на профессионально-ориентированное обучение иностранного языка.

Профессионально – ориентированное обучение основано на учете потребностей студентов в изучении иностранного языка, диктуемого особенностями будущей профессии или специальности. Оно предполагает сочетание

овладения профессионально-ориентированным иностранным языком с развитием личностных качеств обучающихся, знанием культуры страны изучаемого языка и приобретением специальных навыков, основанных на профессиональных и лингвистических знаниях. Профессионально-ориентированное обучение иностранному языку признается в настоящее время приоритетным направлением в обновлении образования. Появилась настоятельная необходимость по-новому взглянуть на процесс обучения вообще и на обучение иностранному языку в частности. Иноязычное общение становится существенным компонентом профессиональной деятельности специалистов. Целью обучения иностранным языкам в медицинских вузах является достижение уровня, позволяющего пользоваться иностранными языками практически, то есть владение иностранным языком, для реализации таких аспектов профессиональной деятельности как своевременное ознакомление с новинками в области литературы, науки и техники, установление контактов с зарубежными партнерами, возможность работать в совместных предприятиях. Наряду с практической целью изучение иностранных языков преследует и также образовательные и воспитательные цели. Неотъемлемой частью обучения иностранным языкам является развитие личности, способной участвовать в межкультурной коммуникации на изучаемом языке и уметь самостоятельно совершенствоваться в иноязычной речевой деятельности. Новая социально-экономическая и политическая ситуация требует реализации в обществе языковой политики в области иноязычного образования, нацеленной на удовлетворение как общественных так и личных потребностей по отношению к иностранным языкам. С реализацией новой языковой политики связано создание гибкой системы выбора языков и условий их изучения, а также вариативной системы форм и средств обучения, отражающих современное состояние теории и практики обучения предмету. Необходимость иностранного языка в современном медвузе диктуется, прежде всего, требованиями современного общества и специальности, которую получает студент. Но для медвуза, если он дорожит своей репутацией, самое главное - это качество образования, которое он дает своему студенту. И здесь без отличного знания иностранного, а лучше нескольких не обойтись.

В соответствии с требованиями Государственного Образовательного Стандарта высшего профессионального образования Республики Узбекистан задачами обучения иностранному языку являются: закрепление



знаний, полученных в средней школе на базе индивидуального подхода и предварительного контроля уровня остаточных знаний, освоение программы высшей школы, то есть углубленное изучение иностранного языка в сфере профессиональной коммуникации, изучение нового лексико-грамматического материала, необходимого для общения в наиболее распространенных повседневных ситуациях, освоение различных видов речевой деятельности и форм речи (устной, письменной, монологической и диалогической), овладение лексико-грамматическим минимумом, курсом реферирования и аннотирования специальной и научной литературы, курсом нацеленного перевода. В течение всего периода обучения иностранным языкам формируется коммуникативная компетенция. Коммуникативная цель обучения, которую мы должны понимать как цель интегративную, направлена на достижение практического результата в обучении языкам, а также на образование и развитие личности. Следует отметить, что традиционно обучение иностранному языку в медицинском вузе было ориентировано на чтение, понимание и перевод специальных текстов, а также изучение проблем синтаксиса научного стиля. Сейчас необходимо думать о перемещении акцента в обучении на развитие навыков речевого общения на профессиональные темы и ведения научных дискуссий, тем более что работа над ними не мешает развитию навыков, умений и знаний, так как именно на них она и базируется. Устная речь в учебном виде должна пониматься как слушание или чтение, понимание и репродуктивное воспроизведение прослушанного или прочитанного в формах как устной, то есть диалогической или монологической, так и письменной речи.

Таким образом, речь идет о реализации речевого акта говорения в процессе устной коммуникации между двумя или более лицами. Анализ программ по иностранным языкам в медицинском ВУЗе показывает, что в учебном процессе задействованы в основном только два вида речевой деятельности (чтение и говорение), в то время как аудирование и письмо выступают лишь как вспомогательные средства, а не самостоятельные виды речевой деятельности. Это приводит к разрыву цепочки и, соответственно, к неполноценному иноязычному образованию. Только введение в учебный план медицинского ВУЗа четырех видов речевой деятельности позволит сформировать целостный образ. Большое значение для преподавателей имеет концепция обучения английскому и русскому

языку как языку профессионального общения. Проблема медицинского ВУЗа в том, что объем времени, отведенный на предмет "иностранного язык", весьма незначителен, а цели и задачи, стоящие перед студентами в современных условиях, все более усложняются. Так, Программы обучения иностранным языкам студентов медицинского ВУЗа, зачастую формулируют эти цели как овладение всеми видами речевой деятельности на основе профессиональной лексики, а также овладение навыками делового общения. Данные цели требуют особого подхода к самому процессу обучения.

Опыт практической работы показывает, что в подавляющем большинстве студенты медицинского ВУЗа, наряду с чтением литературы по специальности, которая выступает как основная цель обучения, проявляют интерес к образу жизни, культуре других стран и желание непосредственно общаться с зарубежными сверстниками. Однако содержание обучения в медицинском вузе больше ориентирует на профессиональную подготовку и не вполне отвечает познавательным потребностям студентов. Как показал анализ, в учебном процессе возникают противоречия между:

- потребностями общества в подготовке специалиста, готового к постоянному пополнению своих знаний и сложившейся практикой обучения иностранным языкам в медицинском вузе;
- профессиональной направленностью обучения иностранным языкам и гуманитарным потенциалом предмета «иностранного языка», который открывает большие возможности познания иноязычной культуры; осознанием важности новых информационных технологий и недостаточно высоким уровнем их применения в обучении иностранным языкам;
- получением информации и неумением ее критического осмысления.

Изучать иностранный язык как средство общения без знания мира данного языка невозможно. Картина мира, окружающего носителей языка, не просто отражается в языке, она и формирует язык и его носителя, и определяет особенности речепотребления.

Таким образом, основные цели обучения иностранным языкам в вузах на современном этапе можно сформулировать как обучение языку как средству общения между специалистами, максимальное развитие коммуникативных способностей обучаемых, ознакомление с социокультурной картиной мира изучаемого языка.



В XXI веке наука утрачивает национальные черты. Для того чтобы быть в курсе новейших открытий и изобретений нужно иметь возможность читать новейшие научные статьи и монографии, которые естественно пишутся на иностранных языках, ведь наука развивается не только в России. Все больше исследований проводится совместными усилиями ученых из разных стран. Чтобы научное открытие было замечено мировой научной общественностью, о нем надо заявить на международном конгрессе или конференции, надо опубликовать статью в иностранном - как правило, англоязычном - журнале. Многие проблемы, связанные с развитием узбекской науки, с признанием ее достижений, с участием узбекских студентов, докторантов и ученых в совместных проектах и мероприятиях, связаны, в частности, и с тем, что мы просто не знаем иностранных языков.

Поэтому в ведущих медицинских ВУЗах без отличного знания иностранного уже сейчас сложно учиться и конкурировать со своими однокурсниками. Ведь и фундаментальные, и прикладные науки требуют в настоящее время выхода за пределы отдельной страны и включения в общемировой контекст. Кроме того, студенты, аспиранты и ученые всего мира участвуют в конкурсах на получение научных грантов и стипендий, позволяющих им заниматься научной работой в зарубежных университетах. Но для того чтобы побеждать в конкурсах мало отличных знаний по своей специальности и гениальных научных идей. Нужно еще уметь донести их до грантодателей на хорошем иностранном.

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# SPÉCIFICITÉ DE L'ORGANISATION ET DU CONTENU DU COURS DE FRANÇAIS À DES FINS SPÉCIALES DANS L'INSTITUT TEXTILE

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## ANNOTATION

*L'article examine les caractéristiques didactiques de la langue française à des fins particulières en tant qu'objectif et moyen d'enseignement, les spécificités du développement et du contenu d'un cours spécial, les caractéristiques des activités de l'enseignant dans la mise en œuvre de l'orientation communicative et professionnelle du processus d'apprentissage. L'organisation du cours de français à des fins particulières, en tenant compte des besoins des stagiaires, crée les conditions d'une motivation supplémentaire et de la formation d'une orientation professionnelle et personnelle au moyen de la langue. Dans le processus d'enseignement de la langue de la spécialité, le problème de l'intégration de la grammaire, de la sélection des situations professionnellement significatives, du vocabulaire de la spécialité et des composants de l'aspect socioculturel de la communication est résolu. La publication touche à un aspect pratique.*

**Mots clés:** *langue étrangère à des fins particulières, situations de communication professionnelle, orientation personnelle sociale et professionnelle, approche fonctionnelle et communicative.*

## СПЕЦИФИКА ОРГАНИЗАЦИИ И СОДЕРЖАНИЯ КУРСА ФРАНЦУЗСКОГО ЯЗЫКА ДЛЯ СПЕЦИАЛЬНЫХ ЦЕЛЕЙ В ТЕКСТИЛЬНОМ ИНСТИТУТЕ

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### Аннотация

Статья рассматривает дидактические характеристики французского языка для специальных целей как цели и средства обучения, специфику разработки и содержания спецкурса, особенности деятельности преподавателя по реализации коммуникативной и профессиональной направленности процесса обучения. Организация курса французского языка для специальных целей, учитывающая потребности обучаемых, создаёт условия для дополнительной мотивации и формирования профессионально-личностной ориентации средствами языка. В процессе обучения языку специальности решается проблема интегрирования грамматики, отбора профессионально значимых ситуаций, лексики по специальности и составляющих социокультурного аспекта коммуникации. Публикация затрагивает практический аспект.

**Ключевые слова:** иностранный язык для специальных целей, ситуации профессионального общения, социально-профессиональная личностная ориентация, функциональный и коммуникативный подход.

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### Abstract

*The paper discusses the didactic features of the French Language for Specific Purposes as goals and tools of learning, the design and content peculiarities of the course, and teacher's principles on implementing the communicative and professional approach in the process of training. Carrying out the course 'French for Specific Purposes' based on students needs increases motivation and develops professional and personal orientation by means of language. Teaching the language for specific purposes helps to solve the problems of grammar integration and the selection of professionally significant situations, vocabulary and the components of the socio-cultural aspect of communication. The paper touches upon the practical aspect.*

**KEYWORDS:** Foreign Language for Specific Purposes, situations of professional communication, socio-professional personal orientation, functional and communicative approach.

L'évolution de la discipline et l'évolution de la demande de maîtrise d'une langue étrangère à des fins particulières expliquent l'intérêt des méthodologistes pour le public cible. Dans le même temps, l'organisation de formations pour les étudiants qui ont un besoin de communication en langue étrangère liée à des activités professionnelles est d'une certaine spécificité.

Le français à des fins spéciales n'est pas seulement un moyen, mais aussi un lien entre la langue générale et la langue de la spécialité. Dans cet aspect, nous considérons la relation entre l'enseignement du français à des fins particulières et la spécialité en français, nous soulignons leur spécificité et leur complémentarité mutuelle, la possibilité de considérer le français à des fins particulières comme un fil conducteur entre deux

domaines de connaissance - entre le domaine de la La langue française et la spécialité, permettant d'acquérir une double compétence. Il s'agit d'un double regard sur le français à des fins spécifiques en tant que fin et moyen d'apprentissage ultérieur. Nous nous concentrerons sur l'organisation de cours de maîtrise de la langue de la spécialité et verrons comment ils se rapportent à la possibilité de coopération, d'échange et de mobilité des étudiants des universités partenaires. Ces derniers comprennent l'Institut de Tachkent de l'Université du textile et de l'industrie légère.

Malgré les nombreux noms et définitions d'une langue étrangère à des fins particulières, le consensus des experts ne laisse aucun doute sur le fait que le français à des fins particulières est un domaine de la linguistique, puisque le sujet d'étude



est le français. Les étudiants ayant une connaissance de base de la langue française ont la possibilité de se spécialiser en langue dans un domaine professionnel spécifique. Des cours de français à des fins particulières dans le domaine choisi vous permettront d'acquérir un stock de vocabulaire technique, de maîtriser la terminologie professionnelle. Ce sera un avantage objectif d'un futur spécialiste de l'emploi dans une entreprise tournée vers l'international, ainsi que dans une entreprise française opérant dans notre région. Il y en a un assez grand nombre, et cette circonstance peut devenir la base de la motivation et de la formation d'une orientation professionnelle et personnelle au moyen de la langue.

Le français à des fins spécifiques est le développement, l'approfondissement de la langue française en tant que sujet d'étude. Nous sommes d'accord avec les chercheurs qui classent l'étude du français à des fins spécifiques comme un domaine général du français comme langue étrangère. Les différentes matières couvertes par le cours de français spécialisé sont des branches de la même matière, que ce soit le français technique ou des affaires, au niveau du premier ou du deuxième cycle [7].

L'acquisition de connaissances de la langue française dans des domaines particuliers est présentée comme l'objectif de la formation, mais en même temps il est également possible d'envisager la langue à des fins particulières comme un moyen, un outil qui permet d'accéder à la maîtrise d'une spécialité en français, utilisant la littérature originale dans le domaine de l'activité professionnelle ou étudiant dans une université française ... Dans cet aspect, le français à des fins particulières n'est pas un but dans une plus large mesure, mais un moyen de transition de la langue française dans une spécialité à une spécialité en français. Dans ce cas, nous n'avons plus affaire à un étudiant qui étudie le français, mais à un futur spécialiste qui parle la langue de sa spécialité. Et le problème ne réside plus dans le niveau de maîtrise du français, mais dans des connaissances particulières dans un certain domaine. Un cours de français à des fins spécifiques surmonte cette barrière et donne à l'étudiant les moyens d'approfondir le sujet dont il maîtrise les caractéristiques linguistiques.

Un enseignant de français à des fins spécifiques est avant tout un enseignant-linguiste. L'une des tâches de son activité est de maîtriser la langue nécessaire à la perception et à la compréhension de l'information dans la spécialité. Un cours en français à des fins spécifiques nécessite qu'un linguiste maîtrise les techniques didactiques et le matériel lexicologique et grammatical, ce qui répond aux objectifs pédagogiques du cours. Cependant, le cours de français spécialisé n'a pas pour but d'introduire ou d'expliquer de nouveaux concepts dans une spécialité, il n'enseigne pas une

discipline spécifique. Complété par l'enseignement d'une discipline particulière, au moment opportun, le français à des fins particulières devient un intermédiaire entre les deux compétences - linguistique et professionnelle. Le cours de français à des fins spécifiques vous permet de comprendre la langue de votre spécialité. Mais ce n'est pas suffisant pour que les étudiants acquièrent les compétences nécessaires. Ce n'est qu'en lien étroit avec la spécialité qu'ils atteindront les possessions d'un haut niveau professionnel. Cela peut devenir un motif pour les activités d'apprentissage des étudiants et la maîtrise du français à un niveau professionnel.

Le domaine de la langue française à des fins particulières a à un moment donné contribué au développement d'une langue fonctionnelle, et maintenant il repose sur le concept d'une approche communicative, qui est à la base des méthodes et des supports pédagogiques spéciaux authentiques [9].

L'organisation d'un cours spécial en langue étrangère présente de nombreuses difficultés organisationnelles et pédagogiques, et dans ce cas, des manuels authentiques permettent d'utiliser de nouvelles méthodes tant sur la forme que sur le contenu de la discipline. En particulier, dans le processus d'enseignement du français des affaires à l'Institut du textile et de l'industrie légère de Tachkent, il semble assez efficace d'utiliser les méthodes proposées par les auteurs français dans les manuels "Comment vont les affaires?" et «Les affaires à suivre» [6], [5]. Ils sont basés sur un concept communicatif qui prend en compte les besoins linguistiques et culturels et fixe des objectifs étroitement liés aux dimensions socioprofessionnelles. La mise en œuvre de tâches de communication intervient dans le processus de jeux de rôle, modélisant des situations de communication professionnelle qui nécessitent des connaissances et des compétences linguistiques et professionnelles. Les techniques didactiques proposées stimulent la communication et l'activité professionnelle, mettent en évidence le sens de la communication, étudient la situation, réfléchissent au contenu des documents, résolvent des problèmes, prennent des décisions, ce qui contribue à l'interaction linguistique interactive dans un groupe d'apprenants.

Cependant, des modèles universels de méthodes authentiques et de supports pédagogiques sont mis en œuvre dans des situations d'apprentissage extrêmement différentes et à différents niveaux de compétences et de besoins linguistiques de base. La pratique pédagogique se heurte à plusieurs reprises à la difficulté d'assimiler pleinement le matériel didactique des méthodes authentiques et des supports pédagogiques, ce qui conduit à l'hétérogénéité et à la fragmentation de son assimilation et au risque de réduire les objectifs de communication à une simple



maîtrise des formes linguistiques. Dans le domaine du français à des fins particulières, où la tâche centrale est la priorité des situations de vie professionnelle et de communication en leur sein, le danger de se concentrer sur les seuls aspects linguistiques est encore plus grand. Il faut ne pas confondre le contenu de la formation à des fins particulières avec la réduction du contenu de la formation aux unités sémantiques et communications minimales [8].

Travailler avec des supports pédagogiques authentiques à caractère universel, conçus pour l'apprentissage du français à des fins spécifiques, nécessite que l'enseignant soit capable à la fois de simplifier et de compliquer les activités pédagogiques afin d'adapter la structure des modules aux particularités du contexte d'apprentissage. En pratique, compte tenu de l'orientation méthodologique, une telle adaptation semble assez difficile. En utilisant les cours proposés par les auteurs des manuels, les enseignants composent du matériel didactique afin de développer leur propre parcours, correspondant à leur propre conscience des besoins des apprenants, en fonction de l'orientation et du rythme du processus d'apprentissage. Cette perception des besoins de communication en langue étrangère varie en fonction de la spécialisation de l'université, de l'état de préparation de l'enseignant et de sa connaissance de la sphère d'activité sociale et professionnelle prévue des étudiants. Ainsi, par exemple, dans notre institut, il existe plusieurs dizaines de domaines et de profils de formation dans le domaine technique. Il existe un certain décalage entre les activités pédagogiques réalisées dans les classes pratiques et celles assumées par les auteurs de matériels didactiques authentiques. Autrement dit, l'enseignant doit avoir une certaine flexibilité dans le choix du matériel didactique nécessaire parmi ceux proposés [10].

Au premier cycle, le processus de maîtrise de la langue française générale passe au stade de la maîtrise du français à des fins particulières en deuxième année, où l'ensemble des matières de la spécialité est beaucoup plus large. Le niveau de langue des étudiants permet une étude approfondie de la langue de la spécialité. Ce processus se poursuit au stade de la préparation au master.

Lors de l'élaboration d'un cours spécial, l'enseignant doit être capable de combiner deux niveaux de départ: le niveau de connaissances de l'élève dans une spécialité spécifique et son niveau de langue. En règle générale, l'instructeur doit adapter son cours au niveau de connaissances prévu de l'étudiant. De nouvelles connaissances acquises progressivement sont utilisées pour construire et comprendre la prochaine section du cours. Quelle que soit la discipline enseignée, la séquence du processus

d'apprentissage implique l'introduction d'un nouveau sujet, son expansion et son approfondissement. Le problème est que les compétences linguistiques d'un élève s'améliorent beaucoup plus lentement que le niveau général de ses connaissances particulières. Ceci peut être illustré par l'exemple de toute discipline technique, telle que l'électrotechnique. Pour familiariser les étudiants avec les concepts introductifs de la discipline dans une langue étrangère, quelques heures d'étude suffisent. Adaptés à leur niveau de français, ils sont facilement compris et assimilés par les étudiants. Cependant, même après une adaptation significative du matériel pédagogique, l'étude et la compréhension de documents scientifiques et techniques dans une langue étrangère nécessitent un niveau de langue beaucoup plus élevé que dans la leçon d'introduction. C'est la principale difficulté de l'enseignement de la langue d'une spécialité, dans laquelle le développement des compétences des étudiants est dû à une augmentation inégale du niveau de maîtrise d'une langue étrangère.

Les professeurs de français à des fins spécifiques ont de grandes difficultés à trouver des supports pédagogiques et du matériel pédagogique qui répondent à leurs besoins. Les manuels authentiques existants sont destinés à un nombre limité d'industries: affaires, économie, juridique, tourisme, médical et quelques autres, tandis que des dizaines de spécialités techniques sont enseignées à l'Institut de Tachkent du textile et de l'industrie légère. Dans ce cas, l'enseignant doit créer et publier ses supports pédagogiques. Ce serait une erreur d'utiliser des manuels spécialisés écrits pour des étudiants français qui parlent couramment la langue.

Dans le cadre du cours de français à des fins spécifiques, le développeur de matériel didactique et de matériel didactique doit souvent développer un cours dans une spécialité qu'il ne connaît pas assez bien. Dans ce cas, il contacte des spécialistes dans des disciplines à orientation professionnelle. Dans ce cas, un principe important de la langue française à des fins particulières doit être pris en compte: le développeur d'un cours spécial en langue étrangère n'est pas obligé de maîtriser la spécialité concernée, ce n'est pas sa fonction. Il doit résoudre le problème de l'intégration de la grammaire, de la sélection de situations professionnellement significatives, du vocabulaire dans la spécialité et des composantes de l'aspect socioculturel de la communication dans le processus d'enseignement de la langue de la spécialité, ce qui semble être une tâche assez difficile pour tout enseignant qui souhaite résoudre de nombreux problèmes et suivre le principe d'organisation de l'enseignement. Sa tâche est de préparer les élèves à l'activité vocale dans des situations de communication. Mais en même temps, il doit se familiariser avec les spécificités



professionnelles afin de connaître les directions principales, la structure, le fonctionnement, les sujets, les situations standards, le vocabulaire commun. Cette étape a pour but de préparer le développeur à créer un cours spécial dans une langue étrangère. Ce processus implique également des contacts avec des experts, la participation à des colloques et des conférences dans l'industrie et une familiarisation avec le lieu de la situation de communication proposée. À cet égard, la participation à l'organisation et à la tenue du Forum ouzbek-français sur les innovations est un exemple de l'expérience réussie des enseignants du Département des langues de l'Institut de Tachkent pour l'industrie textile et légère.

Le développeur de cours est souvent confronté à une nouvelle industrie en rapport avec sa spécialité principale. Dans ce cas, il doit collecter du matériel didactique dans la zone sélectionnée. Un tel travail demande des efforts et du temps considérables. Il a besoin de rencontrer et de consulter des experts de l'industrie dans le processus de collecte et de traitement des matériaux pour créer des manuels dans la spécialité. A la recherche de matériels répondant au mieux aux besoins des apprenants, il est également possible de travailler avec des revues scientifiques et techniques, des articles, des dictionnaires spécialisés et des sites Internet dans différents domaines de la langue française à des fins spécifiques. Le résultat de la coopération fructueuse des professeurs de langues étrangères de l'Institut de Tachkent du textile et de l'industrie légère avec des collègues de départements spéciaux a été la publication de manuels en anglais et en français pour les étudiants et les étudiants de premier cycle d'autres universités techniques [3], [2].

Au stade initial, un cours spécial vise à accumuler des connaissances. En ce sens, la formation linguistique est proche des exercices du stade précédent de l'apprentissage des élèves. Ces connaissances peuvent progressivement devenir des outils de réflexion et d'analyse. Le but de l'enseignant est de conduire l'élève de la conscience de ce qu'il sait à ce qu'il comprend, de la conscience de comprendre à penser, penser et exprimer son opinion. Ce n'est pas une tâche facile, car les étudiants ne sont pas toujours prêts à exprimer et à défendre leurs propres opinions et les résultats de l'analyse de la situation de la communication linguistique en raison de facteurs linguistiques ou psychologiques associés à un manque d'expérience dans ce type d'activité. En utilisant l'ensemble nécessaire de techniques didactiques, l'enseignant forme le désir de s'exprimer sur le sujet en discussion, d'élargir l'argumentation. Pour les apprenants avancés, la tâche d'évaluer de manière critique un article sur des questions scientifiques et techniques d'actualité ou un message

des médias lié au sujet de la leçon est très précieuse. Il est très précieux pour un étudiant de se rendre compte qu'il est capable de comprendre le sens du texte, de le mettre en corrélation avec son expérience, d'évaluer et d'analyser. Passer de la langue de la spécialité à la spécialité en langue étrangère, à des sujets d'intérêt professionnel pour les étudiants, permet de donner une dynamique au processus d'apprentissage et de créer une motivation durable. Des tâches de ce type sont présentées dans tous les manuels créés par les enseignants de l'Institut de Tachkent de Cctile et de l'industrie légère pour étudier le français à des fins spéciales [1], [4].

La langue française au stade actuel de développement n'est plus exclusivement une "langue de la romance", c'est la langue de la communication économique, scientifique et professionnelle. Ceci est grandement facilité par le développement de la langue française à des fins spécifiques. Dans la communauté mondiale, le français est étudié dans toutes les grandes universités. Il devient le langage de la communication professionnelle dans de nombreux pays, des négociations sont menées et des contrats sont conclus à ce sujet, il y a un échange académique des résultats de la recherche, des articles scientifiques sont publiés, des représentants de grandes entreprises transnationales établissent des contacts professionnels.

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## **JACK LONDON: FROM AMATEUR TO CLASSIC OF WORLD LITERATURE**

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### **ABSTRACT**

*The article contains recommendations for students, post-graduate students and young scientists on how to learn to create scientific research works or works of art. The experience of Jack London, an American writer, is given as an example of successful intellectual creativity.*

**KEY WORDS:** *Jack London, a writer, scientific and literary creativity, reading, own works.*

## **ДЖЕК ЛОНДОН: - ОТ ЛЮБИТЕЛЯ К КЛАССИКУ МИРОВОЙ ЛИТЕРАТУРЫ**

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### **Аннотация**

*В настоящей статье содержатся рекомендации для студентов, аспирантов и молодых ученых о том, как можно научиться создавать научные или художественные произведения. В качестве примера успешного интеллектуального творчества приводится опыт американского писателя Джека Лондона.*

**Ключевые слова:** *писатель Джек Лондон, научное и литературное творчество, чтение, собственные произведения.*

As practice shows, students, graduate students, young writers and other persons engaged in intellectual work, but who do not yet have sufficient

experience, often have difficulties in creating their works. This raises the natural question of how you can relatively quickly and efficiently learn to write



books, articles, monographs, etc., avoiding typical mistakes. Currently, a variety of seminars and trainings on this topic are being held, there are many sites and blogs on the Internet that provide assistance to novice scientists and writers. Of course, there is no one, once and for all established methodology, having mastered which any person could easily create scientific works or works of literature. As the old Chinese proverb says: "There are many different paths leading to the top of the mountain," as a result of which every writer or scientist must find his own artistic or scientific style, and not blindly copy the existing ones. Nevertheless, practice has developed certain techniques, following which you can improve your works [1]. The answer to the question of how you can learn to write can be found by referring to the experience of a person who, in just a few years, was able to go from a laborer, a vagabond and a frequenter of hot spots to a world-famous writer and public figure who entered the annals of world literature. We are talking about Jack London (harvest. D. G. Cheney), the author of two dozen major novels and stories, as well as many short stories, an active participant in the socialist movement in the United States in the early XX century. London was and remains the embodiment of the "American Dream", a man who achieved great success solely thanks to his own diligence, perseverance and constant self-improvement, which got out of the lower ranks of society and deserved worldwide recognition.

The future writer grew up in a poor American family from the suburbs of San Francisco [2]. From the age of 10, Jack was forced to earn a living - to deliver newspapers, earn extra money in a bowling alley, and later go to work at a cannery. It should be remembered that at the beginning of the 20th century, child labor was widely used. Later, in his story "The Apostate," London will detail the monstrous exploitation of minors in the factories of the time. Unfortunately, the young American did not escape the conflict with the law, making forays into private oyster shoals, and also early on to alcohol. However, from childhood he developed a passion for reading, and he re-read stacks of books, mainly about strong and courageous people, about sea adventures. At the age of 17, he sailed as a cabin boy on a schooner, the crew of which got the skins of seals. During the voyage, the young man first became acquainted with classical literature - the works of Leo Tolstoy and Gustav Flaubert. These impressions prompted him to write his first story "Typhoon off the coast of Japan", published in the Oakland newspaper, whose editors paid London a good fee. At the same time, the self-taught sailor's essay turned out to be better than anything that was written by the students of the University of California! After this success, Jack

decided to become a writer, he sent his manuscripts to various publications in Oakland and San Francisco, but they were all rejected. This is not surprising, since the style of the future classic had not yet been developed, he was fond of unnecessarily beautiful turns and borrowings from already published works. London returned to "black" work, then became a vagabond and traveled the United States from ocean to ocean (he later recalled his wanderings in the collection of stories "The Road"), he had to serve his sentence in prison, because at that time American laws are very harsh punished vagrancy. Returning to his native Oakland, he makes the final decision to engage only in intellectual work, enrolling for this at the University of California. However, since he did not even graduate from high school and he clearly lacked systematic knowledge, Jack prepares externally for the entrance exams. Here is an excerpt from his memories of this period of his life, which can serve as an example for every applicant: "Well, I was cramming! After all, it was necessary to master the material in two classes in four months ... I hammered nineteen hours a day for all these three months, allowing myself a short break only a few times. I was exhausted to the last degree: my body ached, my head was splitting to pieces, but I continued to cram. My eyes began to hurt, my eyelids twitched, a little more - and I would have to quit classes! In the end ... it seemed to me that I decided to square the circle, but I found the firmness to postpone the derivation of the formula ... Passing the exams, I did not rest for several days and did not sleep for almost a minute ... But when I passed the last written exam, my exhaustion reached limit ... "[3]. Thanks to this preparation, London was able to become a student and successfully complete the first semester, but then he left the university, as he was forced to earn money to support his family. Jack again unsuccessfully tries to publish his stories, but at this time the "gold rush" begins in Alaska and tens of thousands of gold prospectors from all over the world rush to the Klondike. London, succumbing to the temptation to become a millionaire overnight, travels to the North, but despite the hardest trials and the scurvy suffered, he does not find gold and returns home. However, the failed gold digger brings with him something more valuable - subjects for his future works, which he or other prospectors have witnessed. Upon his return, Jack seriously begins to engage in literary work and, finally, succeeds.

Collections of his stories opened for readers the harsh romance of Alaska, a difficult confrontation between man and nature. Then the writer publishes the novels included in the golden fund of world literature: "The Sea Wolf", "Iron Heel", "Martin Eden". London's works are striking in their realism, praising courage, perseverance, readiness to achieve



victory under the most unfavorable circumstances. The heroes of the writer are not just strong and courageous people, but only those of them who help others, who are capable of self-sacrifice in the name of higher interests, who are alien to the passion for profit. A gold miner who has received a ransom for his ex-wife, who once fled from him, drowns gold in an ice-hole ("One-Day Camp"). The Mexican revolutionary wins a formidable rival in the ring, because he will spend a large cash prize not on satisfying his own whims, but on buying weapons to fight the dictatorship ("Mexican"). The prospector who decided to save the Indian girl from a brutal death remains alive, and his friends, who refused to help the Indian woman, perish at the hands of her fellow tribesmen ("Where the roads diverge"). On the contrary, one who at any cost strives to achieve material well-being, sooner or later fails. A clever businessman, who decided to make capital on the trade in eggs, which are in short supply in the Klondike, goes bankrupt and commits suicide ("Thousand Dozen"). The adventurer, possessed by a passion for gold, dies from his own negligence ("The Man with the Scar"). London also has a very negative attitude to such characters who put personal interests above public ones. The young man who left his comrades dies from the cold ("Kindle the Fire"), and the strong and intelligent individualist Nietzschean Wolf Larsen turns into a helpless cripple and dies ("The Sea Wolf"). Unfortunately, the last works of the writer were clearly weaker than his best works and had only commercial, but not literary success ("Adventure", "Hearts of Three"). It should also be noted that in addition to literary creativity, Jack London was actively involved in social activities, promoted the ideas of socialism, took part as a war correspondent during the Russian-Japanese war (the writer even had to spend several days in Japanese captivity). With the advent of cinematography, many works of London were filmed, and more than once (for example, "The Sea Wolf"). The creative heritage of the American writer today does not leave indifferent many people in different countries of the world.

A logical question arises: how did a guy from a working environment who did not even graduate from high school manage to become a famous writer? Of course, one can say that by nature he possessed some special talent, which other novice writers did not have. There is a certain amount of truth in this statement, but nothing more. First, there were many people who, possessing significant abilities in the most diverse areas of creativity, were never able to achieve anything significant (for example, due to their own disorganization). An example of such a talented, but weak-willed person was brought out by I.A. Goncharov in the image of Boris Raisky (the

novel "The Break"), who never became an artist, despite his outstanding inclinations. Secondly, as already mentioned, the early works of London were repeatedly rejected by the editors of print publications due to their obvious weakness and artificiality. Thus, everything cannot be reduced to just one "talent". The answer to the above question lies in the famous saying of the American inventor Thomas Edison: "Genius is one percent of talent and ninety-nine percent of sweat." Jack London, while studying writing, worked 19 hours a day, seven days a week, without giving himself the slightest indulgence. His writing career can serve as an example for anyone who wants to learn how to create real scientific or literary works.

First, it's impossible to learn how to write well if you don't systematically practice reading. The future writer read constantly, even while he was wandering or serving a sentence in prison. True, sometimes this led to sad consequences. Once young Jack was so carried away by reading a book right on the street that he did not give way to a policeman. The representative of the authorities, who regarded such an act as "an insult to the uniform," immediately launched his club, and the young man had to flee, leaving the book unread [4]. Of course, by reading only entertainment literature, it is impossible to learn to write. Therefore, he gave preference to serious works that develop the process of thinking, classical novels and works on philosophy.

Secondly, reading alone is not enough, if you do not constantly analyze what you have read and do not learn from it. In the semi-biographical novel "Martin Eden", which became the pinnacle of London's creativity, this process is shown on the example of the self-improvement of the protagonist of the work, the prototype of which was the writer himself: "... he did not waste a single minute. He attached sheets of paper to the mirror, where he wrote out new words, their meanings and pronunciation: while shaving, dressing, combing his hair, he memorized them. The same lists were hung on the wall above the kerosene stove and he also studied them while he was cooking or washing the dishes ... Martin wrote out every unfamiliar or incomprehensible word he encountered in the book, and when he had enough of them, he printed the list and attached it to the mirror or the wall. He also carried such sheets in his pocket and sometimes looked in the street or while he waited in a grocery or a butcher's shop ... Reading successful authors, he noted their every success; thought over the techniques used for this - the techniques of storytelling, composition, style, thought, comparison, sharpness; and wrote it all out and thought it over. He did not imitate anyone. He was looking for principles. He compiled lists of impressive and



attractive features, then from a variety of them selected from different writers, he deduced some general principle and, equipped in this way, pondered new (own) techniques and already competently weighed, determined and evaluated them. In the same way, he wrote out vivid expressions, lively conversational turns ... "[5]. Such work will help to significantly increase your personal vocabulary, teach you to express your own thoughts clearly and allow you to form a specific writing or scientific style.

Thirdly, one had to constantly improve one's own works, since it is rarely possible to write a perfect text the first time. So, London established a rule for itself, according to which he had to write one and a half to two thousand words every day, and until this was done, the work did not end. The writer constantly improved what was already written by him, looking for and correcting weak points.

Fourth, the author himself should have liked what he wrote. If the writer is not satisfied with the work done, his work is unlikely to be successful. Unfortunately, it is often necessary to adapt to the existing political regime, the conditions of demand in the fiction market, "adjusting" books and scientific works to certain rules that currently exist in the state and society. This cannot but affect the quality of the works created. Jack London could not avoid this either. For example, at the request of the editor of the print edition, he was forced to make the banal "happy and" at the end of his famous novel *The Sea Wolf*. As a result of this, a brilliantly started philosophical adventure work in the finale turned into a sentimental Robinson's, clearly not corresponding to the general level of the novel [6]. Finally, the writer tried himself in different directions of creativity, not limited to some narrow topic. The wrong thing is done by those authors who, constantly specializing in the same issues, turn their scientific or writing activities into a kind of "conveyor belt" and become like a worker who tightens the same nut from day to day (like the character of Charlie Chaplin from the movie "New time"). This narrowness of creativity will never allow you to reach your full potential. Jack London left his mark in a wide variety of literary genres: adventure ("*Daughter of the Snows*"), drama ("*Martin Eden*"), fantasy ("*Interstellar Wanderer*"), social utopia ("*Goliath*"), dystopia ("*The Scarlet Plague*"), sports drama ("*Fierce Beast*"), works about animals ("*The Eternal Call*"), melodrama ("*Little mistress of a big house*"), play ("*Theft*"), etc. path in world literature can serve as a guide for everyone who linked their lives with intellectual activity.

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## ISSUES OF STUDYING STEREOTYPES IN INTERCULTURAL COMMUNICATION

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### ANNOTATION

*The article deals with questions about stereotypes and their role in teaching intercultural communication. It has been shown that stereotypes can lead to discrimination, which turns inaccurate and negative feelings into unfair actions towards certain individuals or groups. However, this can be prevented if the aspects of intercultural communication are correctly added to the curriculum in specialized schools and gymnasiums in order to avoid culture shock during subsequent communication with a native speaker.*

**KEYWORDS:** *culture; intercultural communication; stereotype; ethnocentrism; communicative competence.*

## ВОПРОСЫ ИССЛЕДОВАНИЯ СТЕРЕОТИПОВ В МЕЖКУЛЬТУРНОЙ КОМУНИКАЦИИ

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### Аннотация

*В статье рассмотрены вопросы о стереотипах и их роли в обучении межкультурной коммуникации. Показано, что стереотипы могут привести к дискриминации, которая превращает неточные и негативные чувства в несправедливые действия в отношении определенных лиц или групп. Однако это можно предотвратить, если грамотно добавить в программу обучения в специализированных школах и гимназиях аспекты межкультурной коммуникации во избежание культурного шока при последующем общении с носителем языка.*

**Ключевые слова:** *культура; межкультурная коммуникация; стереотип; этноцентризм; коммуникативная компетенция.*

Culture is a way of life, the context in which we exist, think, feel and build relationships with others. We tend to perceive reality strictly in the context of our own culture, and there is still a

tendency to believe that our own reality is the correct perception. Using the norms of our own culture as standards when we judge the behavior of people from other groups is called ethnocentrism. In the bias of



our own worldview, we tend to depict other cultures too simplistically, and we view each person as having corresponding stereotypical traits. The point is that a stereotype may be correct in depicting a typical member of a culture, but it is imprecise for describing a specific person simply because each of us is unique, so characteristics cannot be predicted based on ethnic norms. In recent years, there has been more discussion and research on the importance of intercultural sensitivity and communicative competence. Teachers should not only draw the attention of students to facts about other cultures, but also point out that communication is not just an exchange of information, opinions, as well as stereotypical images about the culture of other peoples.[1]

Everyone knows some anecdotes about the stereotypes of the ethnic group. The most common is the one about Hell and Heaven. The joke goes like this: "Paradise is a place where: the police are British, the chefs are French, the lovers are Italians, and everything is organized by the Germans. Hell is a place where: police are French, chefs are British, lovers are Germans, and everything is organized by Italians." [2]

The fact that people in each of these countries can laugh suggests that there is some truth in the joke. After all, a stereotype is a fixed, too generalized idea about a specific group of people or a common culture. No matter how accurate a stereotype is, it is based on some reality. The moment we realize that we are making contact, people start looking for similarities. In general, it is a very natural tendency to strive to be close to those with whom we have common views, habits or languages. The more points we can connect, the more comfortable we feel and the faster we can establish new relationships. What is really important is that when we fail to find a common ground, do we have the courage to overcome the anxiety that has arisen and go forward, or do we all together refuse to interact with the unknown?

Regardless of our choice, when faced with uncertainty, stereotypes are likely to form as a result of this confrontation. We tend to think of them as a bad thing, that only racists and fanatics are out hunting others. However, we are all guilty of putting others in a box, even though our knowledge of them is only a grain of truth. Our minds have evolved to navigate this vital process - managing our lives, developing skills and conquering a world that is otherwise too large, complex and impossible to understand in all its details. In any case, stereotypes are created, since this is a universal process, both at the collective and at the individual level.[3]

However, the main problem with this seemingly natural process is that while our brains

may be skillful enough to classify inanimate objects, we run into problems in classifying people because humans are much more complex than objects.

First, stereotypes lure us into a trap that filters out all information that does not match our assumptions. People tend to neglect or ignore facts that call into question a belief, especially when there are no resources to confront this information. Stereotypes are very stable and difficult to change. Even when faced with cases that contradict them, we tend to believe that this is just an exception to the rule. For example, if you have a common stereotype that all Americans are arrogant, so when you meet a friendly, smiling American, you're more likely to conclude that this is just a first impression and that this person is not who he wants to appear at first. acquaintance. In addition, this selective filter will only amplify information that matches your assumptions. In short, you only see what you want to see. Hence, you are misled when making decisions based on lies.[4]

Second, stereotypes can create self-fulfilling prophecies because of the connection between belief and behavior. Basically, your profile in society will be influenced by what people usually think of your group, and therefore indirectly think of you. For example, when Europeans are reminded that they have lower athletic ability than, for example, African Americans, they also perform worse than those who were not aware of this stereotype. Likewise, women think about be less capable than men in technical and mathematical work, but this is a myth that has proven to be erroneous, since women can act on an equal basis with men. This stereotyping effect is so harmful in the sense that it may lead us not to invest more effort in solving the problem. Instead, he questions us about our own abilities and attributes this weakness to our age, race, gender, nationality, etc.[5]

Finally, there are also positive stereotypes. If you think logically, then if a negative stereotype makes people work worse than their real abilities, then a positive one makes them work better. This is partly true. However, as positive as they are, stereotypes remain the same, and you will always be unable to understand the whole picture using them. In a broader perspective, especially in a multicultural society, maintaining positive stereotypes for one particular group highlights the negative stereotypes of others (eg, they are lazy; they depend on wealth; they are criminals, etc.). In fact, it can contribute to legal injustice, social hostility, racial hatred, creating platforms for accusing other groups of not being a model, which is not consistent with their level of contribution. But what if we consider the stereotype as opposed to the concept of cultural fact. At this point, the critical person will ask the question: "How can I distinguish a stereotype from a fact?" There is a



huge difference between a stereotype and an accurate description of a culture. It is helpful to remember that bias is based on perception and accurate cultural descriptions are based on research. There are four criteria for determining whether some cultural information is valid. This is descriptive, not evaluative, can be verified from more than one independent source, applies, if not to all members of the population, at least to the statistical majority, and also indicates the characteristics in which this population differs from others.[6]

Now let's consider the following statement: "The Dutch are tall." The first criterion is marked because the statement is descriptive and non-evaluative, it does not impart moral connotation, good or bad. The second criterion is missing, but it can be derived from at least two studies showing that Dutch people are above the world average. The third criterion is also not met, but can be represented by statistics confirming that this height applies to most Dutch people and not to all. The fourth criterion is vague, since "being tall" is useless without a comparison system, we do not know if the Dutch are "higher than whom?"

*Conclusion:* The statement in its original form is more of a stereotype than an accurate cultural observation. But how then to be? How to be aware of all these nuances without ever visiting other countries? It is very important, firstly, to raise students' awareness of their culture and at the same time to interpret and understand other ethnic groups. Raising intercultural awareness means developing successful communication skills, that is, competent and peaceful interaction with people who are different from us. This approach assigns another important role of the teacher / student of a foreign language: the role of "intercultural mediator", that is, a person who is able to critically comprehend the relationship between two cultures.[7] Obviously, it is not always easy to pause and collect all the information to determine if a piece of information is fact or a stereotype. However, we know that with some conscious effort this is possible. After all, stereotypes and prejudices are everywhere, and we cannot avoid them. We cannot even avoid its direct impact. Nevertheless, we have a choice not to act on them, and even better, to regulate our own behavior and change the natural tendency, and training in intercultural communication can directly contribute to this. Indeed, as practice shows, effective intercultural communication requires sympathy, respect, openness and sensitivity.

Teachers, in turn, must create opportunities for communication based on the values, cultural norms and needs of learners, rather than curricula and texts / textbooks developed in communities of native speakers.[8]

Most importantly, an intercultural language learning program should help students develop "ethnic awareness" in order to comprehend people in their own context.

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## **CREATIVE SELF-REALIZATION WHILE STUDYING GERMAN IN A TECHNOLOGY UNIVERSITY**

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### **ABSTRACT**

*A creative self-development is the most important direction for modernization of an educational system. A creative activity gives wide opportunities for developing one's own individuality. The process of learning a foreign language contributes to forming a creative independence.*

**KEY WORDS:** *a creative self-realization, a creative selfdevelopment, a creative activity, a creative independence, a creative work.*

## **KREATIVE SELBSTREALISIERUNG BEIM STUDIERN VON DEUTSCH IN EINER TECHNOLOGIEUNIVERSITÄT**

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### **Anmerkung**

*Der wichtigste Bereich der Modernisierung des Bildungssystems ist die kreative Selbstentwicklung. Kreative Aktivitäten bieten reichlich Möglichkeiten zur Manifestation und Individualität. Der Prozess des Lernens der deutschen Sprache trägt zur Bildung kreativer Unabhängigkeit bei.*

**Schlüsselwörter:** *kreative Selbstverwirklichung, Erlernen der deutschen Sprache, kreative Arbeit.*



## ТВОРЧЕСКАЯ САМОРЕАЛИЗАЦИЯ ПРИ ИЗУЧЕНИИ НЕМЕЦКОГО ЯЗЫКА В ТЕХНОЛОГИЧЕСКОМ ВУЗЕ

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### Аннотация

*Важнейшим направлением модернизации системы образования является творческое саморазвитие. Творческая деятельность даёт широкие возможности для проявления и индивидуальности. Процесс изучения немецкого языка способствует формированию творческой самостоятельности.*

***Ключевые слова:** творческая самореализация, изучение немецкого языка, творческая работа.*

Politische, sozioökonomische und kulturelle Veränderungen in Usbekistan zu Beginn des 21. Jahrhunderts haben die Funktionen einer Fremdsprache, einschließlich Deutsch als Fach, erheblich erweitert. Infolgedessen hat sich die Rolle einer Fremdsprache in der Gesellschaft geändert und sich von einem akademischen Fach zu einem Grundelement des modernen Bildungssystems entwickelt. Eine Fremdsprache als eines der Kommunikations- und Wissensmittel der umliegenden Welt nimmt aufgrund ihrer sozialen, kognitiven und entwicklungsbezogenen Funktionen einen besonderen Platz im System der modernen Bildung ein. Darüber hinaus verlangt die moderne Gesellschaft von ihren Bürgern, dass sie die Fähigkeiten des kreativen Denkens beherrschen.

Kreativität hört auf, die Menge der Einheiten zu sein. Die wichtigste Richtung der Modernisierung des Bildungssystems des 21. Jahrhunderts ist die kreative Selbstentwicklung des Schülers. Persönlichkeit - als Fach mit Erfahrung in der selbständigen kreativen Tätigkeit ist sie im Vergleich zu denjenigen, die 129 etablierte Standardmethoden anwenden, immer auf einem höheren Niveau. Und das bedeutet, dass die Entwicklung der kreativen Fähigkeiten der Schüler und die Erziehung einer aktiven Persönlichkeit eine vorrangige Aufgabe ist. Heutzutage müssen die Universitäten nicht gedankenlose Ausführende des Verwaltungskommandosystems ausbilden, sondern Menschen, die sozial aktiv sind, kreativ und frei denken, in der Lage sind, unabhängige neue

Informationen zu erhalten und zu bewerten, eine fundierte Entscheidung zu treffen und ausgewogene, angemessene Entscheidungen zu treffen.

Kreative Aktivitäten bieten reichlich Möglichkeiten zur Manifestation ihrer eigenen Individualität. Die direkte und aktive Teilnahme der Studierenden an dieser Aktivität auf einem zugänglichen Komplexitätsniveau eröffnet große Perspektiven für die integrierte Entwicklung und Bildung des kreativen Potenzials des Einzelnen. Kreativität ist die höchste Form der Aktivität und selbständigen Aktivität einer Person und Gesellschaft. Es enthält ein Element des Neuen, setzt originelle und produktive Aktivitäten voraus, die Fähigkeit, Problemsituationen zu lösen, produktive Vorstellungskraft kombiniert mit einer kritischen Einstellung zum erzielten Ergebnis. Der Rahmen der Kreativität umfasst Maßnahmen von einer nicht standardmäßigen Lösung über ein einfaches Problem bis hin zur vollständigen Realisierung des einzigartigen Potenzials eines Individuums in einem bestimmten Bereich. Daher besteht ein direkter Zusammenhang zwischen dem Prozess der Kreativität und der Verwirklichung der Fähigkeiten einer Person in sozial bedeutsamen Aktivitäten, die den Charakter der Selbstverwirklichung annehmen. Es ist bekannt, dass die vollständigste Offenlegung der Fähigkeiten einer Person nur bei sozial bedeutsamen Aktivitäten möglich ist. Darüber hinaus ist es wichtig, dass die Umsetzung dieser Aktivität nicht nur von außen (von der Gesellschaft) bestimmt wird, sondern auch vom inneren Bedürfnis der



Persönlichkeit selbst. Die Tätigkeit des Individuums wird in diesem Fall zu einer eigenständigen Tätigkeit, und die Verwirklichung seiner Fähigkeiten in dieser Tätigkeit erhält den Charakter der Selbstverwirklichung. Das wichtigste Persönlichkeitsmerkmal, das für eine vollwertige kreative Selbstverwirklichung erforderlich ist, ist Kreativität. Kreativität als ein inhärentes menschliches Potenzial, das mit der Persönlichkeit verbunden ist, von ihr abhängig ist und sich in Denken und Handeln manifestiert, führt zur Entstehung eines neuen, innovativen Produkts. Der Lernprozess, zum Beispiel die deutsche Sprache, trägt zur Bildung kreativer Unabhängigkeit bei, weil im Rahmen dieses Fachs besteht die Möglichkeit, kreative Aufgaben und Übungen zu verwenden, bei denen die Schüler selbstständig arbeiten und ihnen beibringen müssen, Sprachmaterial zu verwenden, um ihre Gedanken in dialogischer und monologischer Sprache schriftlich auszudrücken. [1]

Alles, was für die Umsetzung der oben genannten Anforderungen erforderlich ist, bieten moderne pädagogische Technologien, die in den Englischunterricht eingeführt werden. Dazu gehören moderne Informationstechnologien, interaktive Bildungsformen und der weit verbreitete Einsatz von Projektmethoden. Kreative Arbeit ist sowohl ein Prozess als auch ein Produkt der Aktivität. Sie ist sowohl eine persönliche Qualität als auch eine Umgebung, die Bedingungen für die Selbstverwirklichung schafft. Es ist auch die Fähigkeit, Ihr eigenes Bild von der Welt, Ihre Wahrnehmung der Welt (in Worten, Bildern, Handlungen) und sich selbst in dieser Welt durch Englisch aufzubauen, nicht durch Ihre Muttersprache.

Bei der Entwicklung von Aufgaben sollte Folgendes berücksichtigt werden: der allgemeine Entwicklungsstand des Teams;

• Altersmerkmale der Bildung des kreativen Umfelds;

• persönliche Merkmale der Schüler;

• persönliche und soziale Bedeutung von Bildung und Kreativität

• Aufgaben; Besonderheiten und Merkmale des Faches.

• Das Abschließen kreativer Aufgaben dient dazu, die folgenden Ziele zu erreichen:

1. Sie bilden eine kulturelle, sozial aktive sprachliche Persönlichkeit.

2. Sie helfen dabei, die Grammatik besser zu verarbeiten, neue Wörter und Ausdrücke auswendig zu lernen und sie in mündlichen und schriftlichen Reden korrekt zu verwenden.

3. Sie tragen zur Unabhängigkeit des Handelns der Schüler bei, um neue sprachliche und soziokulturelle Kenntnisse sowie praktische

Fähigkeiten in der zwischenmenschlichen Kommunikation zu erwerben.

4. Sie sind ein Werkzeug für die unabhängige Kenntnis des deutschen Volkes in all seiner Vielfalt: Geographie, Geschichte, Kultur.

5. Sie fördern den aktiven Einsatz von Informations- und Computertechnologien, die den Zugang zum globalen Informationsraum ermöglichen, was wiederum zur Bildung von Informationskompetenz der Studierenden beiträgt. Die kreative Arbeit der Schüler mit Hilfe solcher Technologien wird zusätzlich gefördert.

6. Sie erhöhen das Interesse am Deutschlernen. Selbst die schwächsten Schüler sind immer gerne bereit, ihre Arbeit zu erledigen, weil es besteht die Möglichkeit, Ihre individuellen Fähigkeiten zu zeigen.

7. Das Ausführen kreativer Aufgaben schafft positive Lernmotive.

8. Sie konzentrieren sich auf positive Lernergebnisse. Das Ausführen kreativer Aufgaben hat zweifellos einen Effekt. Verlassen Sie sich auf die positiven Ergebnisse von Bildungsaktivitäten. Es gibt Erfolg - es gibt Motivation und „Motivation ist der, Auslösemechanismus“ jeder menschlichen Aktivität“ (IA Zimnyaya).

9. Sie rufen starke Emotionen hervor. Die Studierenden erwerben „die Erfahrung einer emotionalen Einstellung zu ihren Aktivitäten, die durch das System persönlicher Werte gebrochen wird“ (IA Lerner).

10. Kreative Aufgaben bieten freie Wahl der Aktionen, Variabilität der Arbeit.

11. Und schließlich hilft die abgeschlossene kreative Arbeit dem Lehrer bei der weiteren Arbeit und ist ein gutes visuelles Mittel, um anderen Schülern neues Material oder kreative Aufgaben zu erklären. [2]

Es gibt zwei Haupttypen kreativer Arbeit: obligatorisch;

• auf Wunsch.

• Die Arten von kreativen Aufgaben können nach folgenden Kriterien klassifiziert werden:

1. Zweck:- Entwicklung der Sprachkompetenz (Phonetik, Wortschatz, Grammatik); - Entwicklung der Sprachkompetenz (Sprechen, Hören, Lesen, Schreiben); - Entwicklung soziokultureller Kompetenz (Wertesystem, Lebensrealitäten).

2. Nach Anzahl der Teilnehmer: - individuell; - gepaart; - Gruppe.

3. Über den Einsatz von Informations- und Kommunikationstechnologien (IKT): - mit dem Einsatz von IKT (wird bei Studenten immer beliebter und wird zusätzlich gefördert); - ohne den Einsatz von IKT.

4. Am Ort der Aufführung: - im Klassenzimmer; - als Hausaufgabe.



5. Zu Themen im pädagogisch-methodischen Komplex. [3]

Als Beispiel zur Veranschaulichung können die folgenden Übungen angeboten werden. Im Rahmen des Themas "Werbung" führen die Studierenden eine Produktpräsentation durch. Bei der Vorbereitung wählen die Schüler ein Produkt oder eine Dienstleistung aus und überlegen sich ihre einzigartigen Merkmale und Hauptmerkmale, die es ihnen ermöglichen, profitabel verkauft zu werden. Die folgende Übung hilft Ihnen dabei, mit jedem Produkt kreativ zu werden. Es heißt "Wundersache". Zum Beispiel ein Nudelholz, mit dem im Alltag Teig gerollt wird. Was kann sie aus deiner Fantasie machen? In einem Sportgerät, in einem Massagegerät, in einem Spielwerkzeug (Schläger), in einem Reparaturwerkzeug usw. Gleichzeitig werden im Kopf verschiedene Slogans gespielt, die den Verkauf anregen. Als nächstes vergleichen wir zwei relativ ähnliche Fächer und heben die Ähnlichkeiten und Unterschiede hervor, indem wir die Studentengruppe in Teams aufteilen. Als Fortsetzung können Sie die Schüler einladen, zwei ihrer Meinungen nach nichts Ähnliches zu finden, und sie bitten, Ähnlichkeiten zu finden.

Das Erstellen eines Werbespots oder das Entwickeln einer Werbekampagne ist sowohl im realen Leben als auch bei Bildungsaktivitäten ein sehr kreativer Prozess. Es beinhaltet nicht nur "Wortschöpfung", sondern auch Elemente künstlerisch-künstlerischer Kreativität: Zeichnen, Singen, Poesie, "Collage", Bühnenfähigkeiten. Letztendlich entsteht ein neues Produkt - eine neue Werbung für ein bekanntes Produkt. In der Unterrichtsarbeit sind die Schüler an kreativen Aktivitäten beteiligt - einem Spiel, an außerschulischen Arbeiten - im Prozess der kognitiven Aktivität, wenn sie bereits bekannte Ansätze zur Werbung für ein bestimmtes Produkt untersuchen. Infolgedessen wächst ihre kognitive und kreative Aktivität, ihre Motivation zum Lernen und ihr kreatives Potenzial, ihre kreativen Fähigkeiten: mentale Flexibilität, Intuition, Vorstellungskraft, kreatives Denken usw. Gleichzeitig wird die Situation der zukünftigen professionellen Kommunikation in einer Fremdsprache modelliert, Kommunikationsfähigkeiten entwickelt und die Kompetenz der interkulturellen Kommunikation gebildet. Künstlerische und kreative Aktivitäten im Fremdsprachenunterricht beinhalten notwendigerweise das Hören und Verwenden verschiedener authentischer Quellen: Videos, Audiomaterial (CDs). Die Anziehungskraft musikalischer Materialien weckt die Kreativität.

Sie können beispielsweise vorschlagen, ein klassisches Stück anzuhören und die empfangenen Emotionen und Eindrücke in Form einer Geschichte

zu teilen, die durch das Spiel der Fantasie erzeugt wird. "Welche Jahreszeiten stellst du dir vor, wenn du diese Musik hörst? Welche Art von Bildern bringt deine Fantasie hervor? Wovon träumst du? Wie fühlst du dich?" Die Verwendung populärer Melodien als Material zum Hören und Singen trägt zweifellos zur Entwicklung der Kreativität der Schüler bei. Gleichzeitig besteht ein Interesse an der Schaffung einer literarisch-poetischen Übersetzung.

Die Erweiterung des Wortschatzes und die Festigung der grammatikalischen Strukturen erfolgt entspannter. Wenn ein Mensch keine gewisse Wahrnehmungsreife, keine etablierte Weltanschauung, keinen gewissen Grad an eigener Freiheit und keinen kreativen Ansatz zur Lösung schwieriger Situationen hat, fällt es ihm schwer, der in der Gesellschaft entwickelten Ideologie zu widerstehen. In seiner Entwicklung wird es dem Standardpfad folgen. Die Wirksamkeit des Einsatzes von Kunst im Kontext der psychologischen und pädagogischen Praxis beruht auf der Tatsache, dass Sie mit dieser Methode auf symbolischer Ebene mit Gefühlen experimentieren, sie erforschen und ausdrücken können.

Die Schaffung von etwas Neuem ist nicht eine Frage des Intellekts, sondern des Drangs zu spielen, aus innerem Zwang heraus zu handeln. Der kreative Geist spielt mit den Objekten, die er liebt. Einen ziemlich großen Platz in der allgemeinen Struktur der Bildungsaktivität der Universität spielen Spielaktivitäten. Im Bildungsprozess können Business-, Imitations- und Rollenspiele sowie Schulungen unterschieden werden, die alle Spielmethoden gleichzeitig umfassen können.

In der Praxis des Englischunterrichts können alle oben genannten Beispiele anhand der folgenden Beispiele veranschaulicht werden:

1) Verteidigung des Projekts, Bestehen eines Tests oder einer Prüfung in Theaterform;

2) Verfilmung eines kommerziellen Lehrfilms;

3) Abhalten von Pressekonferenzen auf Einladung berühmter Persönlichkeiten (Geschäftsleute, Politiker, Künstler), deren Rolle die Studenten selbst spielen;

4) Geschäftsspiele, die internationale Treffen und Verhandlungen imitieren;

5) Spiele - Auktionen usw. Spieltechnologien ermöglichen es, alle potenziellen Fähigkeiten einer Person vollständig aufzudecken, da sie gleichzeitig visuelle, auditive und kinästhetische Systeme verwenden. Der Fremdsprachenunterricht sollte auf einem Aktivitätsansatz basieren, was bedeutet, dass der Lernprozess so nah wie möglich an der zukünftigen beruflichen Aktivität des Schülers sein sollte. [4]



Die Arbeit mit Informationen auf Deutsch erfordert die Bildung bestimmter intellektueller Fähigkeiten: die Fähigkeit, Informationen zu analysieren, die erforderlichen Fakten auszuwählen, sie in einer logischen Reihenfolge aufzubauen, Argumente und Gegenargumente vorzubringen usw. In der Regel zu Beginn der Arbeit In einem Fachgebiet sieht sich ein junger Fachmann bei der Kommunikation mit seinen ausländischen Kollegen mit der Notwendigkeit konfrontiert, Probleme von theoretischer und praktischer Bedeutung zu lösen, die einen klaren und klaren Gedanken erfordern, diesen Gedanken mündlich oder schriftlich in deutscher Sprache formulieren zu können.

Dank kreativer Aufgaben werden die Schüler ständig geschult und üben all diese Fähigkeiten. Eine Person, die ein ständiges und bewusstes Interesse an Kreativität hat, die Fähigkeit, ihr kreatives Potenzial auszuschöpfen, sich erfolgreicher an die sich ändernden Lebensbedingungen und -anforderungen anpasst, leichter ihren eigenen individuellen Aktivitätsstil kreiert, ist in der Lage, sich selbst zu verbessern und Selbstbildung.

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## **TRENDS IN THE DEVELOPMENT OF CULTURAL AND HUMANITARIAN COOPERATION OF UZBEKISTAN WITH THE COUNTRIES OF CENTRAL ASIA**

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### **ABSTRACT**

*This article covers the formation, development and prospects of cultural and humanitarian cooperation between the Republic of Uzbekistan and Central Asian countries. Factors influencing the cultural and humanitarian cooperation of Uzbekistan with the countries of the region are analyzed. The role and place of the cultural and humanitarian sphere in strengthening cooperation between the countries of Central Asia is gradually shown. The legal basis of interstate cultural and humanitarian cooperation and the activities of cultural events are studied. The common history and spiritual values of Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan are illustrated by examples. It has been revealed that the ancient fraternal ties between the peoples of the region today serve to strengthen interstate cultural and humanitarian cooperation. Conclusions were reached on the development of cultural and humanitarian cooperation between Uzbekistan and Central Asian countries, and a number of proposals were made to strengthen cultural cooperation.*

**KEY WORDS:** *Republic of Uzbekistan, Central Asia, cultural and humanitarian cooperation, foreign policy, Action strategy, good neighbourly environment, "prosperity belt", "people's diplomacy", common history, fraternal ties, great figures, culture days, friendship festivals, cultural centers, universal values.*

### **ЎЗБЕКИСТОННИНГ МАРКАЗИЙ ОСИЁ МАМЛАКАТЛАРИ БИЛАН МАДАНИЙ ГУМАНИТАР ҲАМКОРЛИГИНИНГ РИВОЖЛАНИШ ТЕНДЕНЦИЯСИ**

### **ТЕНДЕНЦИИ РАЗВИТИЯ КУЛЬТУРНО-ГУМАНИТАРНОГО СОТРУДНИЧЕСТВА УЗБЕКИСТАНА СО СТРАНАМИ ЦЕНТРАЛЬНОЙ АЗИИ**

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**Аннотация.** Мазкур маколада Ўзбекистон Республикасининг Марказий Осиё мамлакатлари билан маданий-гуманитар ҳамкорлигининг шаклланиши, ривожланиши ва истиқболи масалалари ёритилган. Ўзбекистоннинг минтақа мамлакатлари билан маданий-гуманитар ҳамкорлигига таъсир кўрсатувчи омиллар таҳлил этилган. Марказий Осиё мамлакатлари ҳамкорлигини мустаҳкамлашда маданий-гуманитар соҳанинг ўрни ва роли босқичма-босқич кўрсатиб берилган. Давлатлараро маданий-гуманитар ҳамкорлиқнинг ҳуқуқий асослари ва маданий тадбирлар фаолияти ўрганилган. Ўзбекистон, Қозоғистон, Қирғизистон, Тожикистон ва Туркманистонни умумий тарих, маънавий қадриятлар бирлаштириши мисоллар билан кўрсатиб берилган. Минтақа халқларини азалдан қардошлиқ ришталари боғлаб туриши бугунги кунда давлатлараро маданий-гуманитар ҳамкорлиқнинг мустаҳкамланишига хизмат қилаётганлиги очиб берилган. Ўзбекистоннинг Марказий Осиё мамлакатлари билан маданий-гуманитар ҳамкорлиқни ривожлантириш юзасидан хулосаларга эришилган ва маданий ҳамкорлиқни мустаҳкамлаш тўғрисида бир қатор таклифлар илгари сурилган.

**Калит сўзлар.** Ўзбекистон Республикаси, Марказий Осиё, маданий-гуманитар ҳамкорлик, ташқи сиёсат, Харакатлар стратегияси, ахил қўшничилик муҳити, “фаравонлик камари”, “халқ дипломатияси”, умумий тарих, қардошлиқ ришталари, буюк сиймолар, маданият кунлари, дўстлик фестиваллари, маданият марказлари, умуминсоний қадриятлар.

**Аннотация.** В статье освещается становление, развитие и перспективы культурно-гуманитарного сотрудничества между Республикой Узбекистан и странами Центральной Азии. Анализируются факторы, влияющие на культурно-гуманитарное сотрудничество Узбекистана со странами региона. Постепенно показаны роль и место культурно-гуманитарной сферы в укреплении сотрудничества между странами Центральной Азии. Изучаются правовые основы межгосударственного культурно-гуманитарного сотрудничества и деятельности культурных мероприятий. Объединение Узбекистана, Казахстана, Кыргызстана, Таджикистана и Туркменистана общими историческими и духовными ценностями иллюстрируется примерами. Выявлено, что давние братские связи между народами региона сегодня служат укреплению межгосударственного культурно-гуманитарного сотрудничества. Сделаны выводы о развитии культурно-гуманитарного сотрудничества между Узбекистаном и странами Центральной Азии, внесен ряд предложений по укреплению культурного сотрудничества.

**Ключевые слова.** Республика Узбекистан, Центральная Азия, культурно-гуманитарное сотрудничество, внешняя политика, Стратегия действий, добрососедство, «пояс процветания», «народная дипломатия», общая история, братские узы, великие деятели, дни культуры, фестивали дружбы, культурные центры, универсальные значения.

## INTRODUCTION

Further development of relations between the states, implementation of joint projects in the economic, cultural and humanitarian spheres is one of the most urgent tasks in ensuring peace and stability in Central Asia. In his Address to the Oliy Majlis, President of the Republic of Uzbekistan Shavkat Mirziyoyev will continue the large-scale work on intensification of Uzbekistan's foreign policy, open, pragmatic and well-thought-out foreign policy that

meets national interests. It was noted that cooperation with all countries, far and near, long-term and multifaceted partnership should be further strengthened, and the first priority in this regard is to bring the relations with the countries of Central Asia to a new level in terms of friendship, good neighbourliness and strategic partnership.<sup>1</sup> We need to bring it out.” The cultural cooperation of the Republic

<sup>1</sup> Public's Speech. January 25, 2020.



of Uzbekistan with the countries of Central Asia has been studied in the framework of the Days of Culture, friendship festivals, music festivals "Sharq Taronalari".

## MAIN PART

The adoption of the Resolution of the President of the Republic of Uzbekistan dated June 30, 2017 "On the organization of the Public Council on the recent history of Uzbekistan under the Academy of Sciences of the Republic of Uzbekistan" demonstrates the importance of detailed study of domestic and foreign policy. According to the resolution, the recent history of Uzbekistan requires a systematic study of its integral connection with global and regional processes, based on the principles of historicity and objectivity.

Another important factor in the strategy of action is the formation of a harmonious neighbourhood environment in Uzbekistan, i.e. the "belt of prosperity", the expansion of cultural and humanitarian cooperation with neighbours, facilitation of people-to-people contacts.<sup>2</sup> In order to implement this principle, cultural trips in the form of "people's diplomacy" were organized not only with neighbouring countries, but also with the participation of the public of their neighbouring regions. Because of its geopolitical location, Uzbekistan has a number of close aspects that require strong cooperation with neighbouring countries in the Central Asian region. It is because the countries of the region namely Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan are bound by a common history and integral spiritual values. The peoples of the region have a long history of kinship, neighbourliness and mutual respect, which serve as a solid basis for relations between these countries.<sup>3</sup>

For example, the Uzbek and Kazakh peoples have always lived side by side, they were related. At the initiative of the President of Uzbekistan, the wide range of contacts between the regions of the two countries has further strengthened our cooperation. Delegations of various levels visited Uzbekistan from Kazakhstan to Kazakhstan. In 2017, the delegation of Tashkent region visited Kazakhstan, the delegations of Kyzylorda region of Kazakhstan, East Kazakhstan and South Kazakhstan regions visited Uzbekistan. Such visits marked a new stage in the lives of not only the people living in the border areas, but also the representatives of the whole region. As stated in the

joint declaration on further deepening the strategic partnership and strengthening good neighbourliness between the Republic of Uzbekistan and the Republic of Kazakhstan, the parties will continue to strengthen cultural and humanitarian cooperation for Uzbek and Kazakh ethnic groups living in the two countries undertook to create favourable conditions for the preservation and development of traditions and customs.<sup>4</sup>

Historically, the achievement of national independence by the Central Asian countries has given a new meaning to the economic, socio-political and cultural life of these countries. The efforts of the countries of the region to form develop and strengthen cultural and humanitarian cooperation, the re-discovery of national identity, ethnic values and a sense of belonging to the cultural heritage directly laid the foundation for the establishment of national cultural centers of each nation. Therefore, in order to ensure the diversity of national cultures, it is necessary to pay close attention to the activities of national cultural centers and public associations based on national identity, which are indicators of the process of ethnic integration in the region.<sup>5</sup>

In particular, in March 1992, the First Congress of Kazakhs was held in Uzbekistan, and the Kazakh National-Cultural Center of Uzbekistan was established.<sup>6</sup> The main goal of its activities is to establish cultural and humanitarian cooperation between the peoples of Kazakhstan and Uzbekistan. At the meetings of the two friendly heads of state in Tashkent and Almaty, the main directions in all spheres, including culture, were identified. This implies the need to maintain and further develop long-standing cultural ties.<sup>7</sup>

This cultural center, in turn, includes Kazakh centers in Karakalpakstan, Jizzakh, Navoi, Syrdarya, Tashkent and Khorezm regions, as well as in Tashkent and Chirchik. Today, the function of these centers is much broader and more diverse. <sup>8</sup>Their main directions are the study of the Kazakh language cooperation with

<sup>4</sup> Public's speech. April 27, 2017.

<sup>5</sup> Nazarov N. Ethno-social cooperation in Central Asia. // Social thought. Human rights. № 4 (76) / 2016 - p. 32.

<sup>6</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60.

<sup>7</sup> Murtazaeva R.H. Interethnic relations and tolerance in Uzbekistan. T: "University", 2007. - p. 137.

<sup>8</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60

<sup>2</sup> Decree of the President of the Republic of Uzbekistan on the Action Strategy for further development of the Republic of Uzbekistan. - T.: Adolat, 2017. -112 p.

<sup>3</sup> Public's speech. April 27, 2017.



higher and secondary special educational institutions to help young people to develop higher and vocational education in this language, meet the cultural needs of the Kazakh population, support young talents.<sup>9</sup>

National-ethnographic, folklore, youth and variety ensembles work at the Kazakh cultural centers. Among them are the instrumental ensemble "Dumbira", the ensemble "Darin" and other groups of songs and dances. The activity of the ethnographic museum "Shahsham" in Bostanlyk district is also commendable.

The Kazakh National-Cultural Center of Uzbekistan has established close relations with the Committee on International Relations and Friendship with Foreign Countries under the Cabinet of Ministers of the Republic of Uzbekistan. The anniversaries of Abay, Jambul Mukhtor Avezov, Sobit Mukanov, Gabit Musrepov and other prominent figures of Kazakh culture, literature and art were celebrated with great solemnity in the republic. Every year, international competitions of akyns "Aytis", national holidays "Altibakan", "Tusaukeser" are held.<sup>10</sup>

Cultural and humanitarian cooperation is also of special importance in the relations between the two strategic partners. Hundreds of thousands of Kazakhs living in the territory of Uzbekistan play an important role in the continuation of friendly relations between our peoples. In order to develop their values and traditions and identity, Kazakh cultural centers, theaters, folklore and variety groups operate. More than 50 books by writers and publicists of this nation have been published under the Writers' Union of Uzbekistan. It should be noted that the Kazakh-language newspaper "Nurli Jol" is published in our country.

Kazakh is taught in 386 schools in Uzbekistan, 164 of which are taught in Kazakh. At the same time, departments of the Kazakh language and literature have been established at Karakalpak State University and a number of other universities in Uzbekistan, where education is conducted in this language.<sup>11</sup>

The first visit of the delegation of the Assembly of Peoples of Kazakhstan to Uzbekistan in February 2017 was a clear confirmation of the deepening of bilateral cultural and humanitarian ties. During the visit, meetings were held with the Republican

International Cultural Center, Uzbek scientific and academic circles, as well as with the Kazakh population living in Tashkent, which testifies to the promising state of cultural cooperation.

The visits of representatives of Bukhara and Khorezm regions to Lebap and Dashoguz regions of Turkmenistan on February 4-5, 2017 were also rich in talks with the participation of heads of administrations of relevant regions, representatives of business and public circles. The participants of the visit noted that the high level of cultural and humanitarian cooperation between the fraternal countries and peoples, based on mutual trust and respect allowed to identify promising plans for mutual cooperation.

It was also noted that it is important to develop direct and close inter-regional partnerships, especially in trade, economic, cultural and humanitarian spheres a joint declaration was signed on further deepening the partnership and strengthening good neighbourliness.<sup>12</sup> It was noted that in the framework of cultural and humanitarian cooperation, the parties undertook to create favourable conditions for the preservation and development of the native language, national culture, traditions and customs for the Uzbek and Turkmen ethnic groups (peoples) living in the two countries. It should be noted that today about 200,000 people of Turkmen descent live in different regions of Uzbekistan.<sup>13</sup> Children of this nation study in 47 schools where the Turkmen language is taught. Similar visits were made to other neighbouring countries. The opening of the Ashgabat Park in Tashkent in April 2018 and the Uzbek-Turkmen friendship game in Khorezm region is an important factor in determining the development of cultural and humanitarian cooperation between the two countries.

The long-standing ties between Uzbeks and Tajiks have been strengthened by the efforts of the leaders of the two countries, which have led to the establishment of mutual closeness, kinship, friendship and cultural and humanitarian cooperation not only in the pages of history but also in modern life. .

In 1990, the Tajik National Cultural Center "Oriyono" was established in Uzbekistan. <sup>14</sup> Tajiks and Uzbeks have a lot in common: national culture,

<sup>9</sup> Murtazaeva R.H. Interethnic relations and tolerance in Uzbekistan. T: "University", 2007. - p. 137.

<sup>10</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60

<sup>11</sup> . Public's Speech March 21, 2017.

<sup>12</sup> Public's speech. April 27, 2017.

<sup>13</sup> Mirzaev G'R. Ancient fraternal ties are on the way to development (cooperation between the Uzbek and Turkmen peoples). - T.: "Navruz", 2016. 124 p.

<sup>14</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60



customs, folk, art - the roots of the bar are sometimes inseparable. The ancient and ancient, in many respects, medieval history of these peoples is very close. The center regularly holds various cultural and educational events in order to fulfill the tasks set in its charter - to preserve and develop national culture, traditions and customs, to strengthen friendship between peoples and pays special attention to the development of education and spirituality on a charitable basis.

The center will hold radio seminars, art and enlightenment evenings about the life and work of Abu Abdullah Rudaki, Hafiz Sherozi, Sipandi Samarkand and other scholars of the Tajik people. Oriyono's creative teams regularly take part in celebrations of Navruz, Remembrance and Honour, Independence Day, Uzbek-Tajik friendship evenings and events organized by other national and cultural centers. Along with Oriyono, there are Tajik cultural centers in Jizzakh and Surkhandarya regions, as well as in Chirchik, Tashkent region. Currently, the Tajik-Persian center "Oftobi Sogdiy" operates in Bukhara region.<sup>15</sup>

President of the Republic of Uzbekistan Shavkat Mirziyoyev noted that: "The Uzbek and Tajik peoples are united by centuries-old common history, cultural and spiritual commonalities. Our customs, traditions and values, our religion, our daily life are so close and harmonious that it is almost impossible to separate them from each other".<sup>16</sup> It should be noted that the cultural and humanitarian sphere plays a special role in the cooperation between Uzbekistan and Tajikistan. The fact is that the two peoples have lived side by side for thousands of years play an important role in the development of the cultural sphere.

Analyzing the chronology of cultural cooperation between the two countries, we can see that cooperation in this area has not been the same.

During the Days of Tajik Culture in Uzbekistan from June 29 to July 5, 1998, the Tajik delegation of prominent scientists, writers, artists, politicians and members of the public visited Samarkand, Bukhara, Kashkadarya and Khorezm regions on four routes. These days, the exhibition of works of Tajik art and creativity has become popular.<sup>17</sup> In particular, an

exhibition of works by Tajik artists in the exhibition hall of the Academy of Arts of Uzbekistan, an exhibition of Tajik books and photographs at the Turkiston Palace, a screening of several Tajik films at the House of Cinematographers made a great impression on the audience. However, in recent years, weak political and economic cooperation between the two countries has also been reflected in the cultural sphere.

The coming to power of Shavkat Mirziyoyev in 2016 marked the beginning of a new era in Uzbekistan's comprehensive cooperation with the countries of the region. The successful holding of the Days of Culture of the Republic of Uzbekistan in Tajikistan in 2017 and the Days of Culture of the Republic of Tajikistan in the Republic of Uzbekistan is a vivid example of the current state of cultural cooperation.<sup>18</sup>

Of course, there are many examples of the current state of cultural cooperation between the countries with all the countries of the region. In 2017, by the decree of the President of Tajikistan Emomali Rahmon, the park "50 years of youth" in the capital was renamed "Nizomiddin Alisher Navoi". In turn, a monument to the great representatives of the two peoples – Alisher Navoi and Abdurahmon Jami was erected in Samarkand. In addition, one of the stations under construction in the Tashkent metro was named after the famous Tajik poet, Hero of Tajikistan Mirzo Tursunzade.<sup>19</sup>

According to Munim Olamov, Secretary General of the Media Alliance of Tajikistan, Director General of Imruz News, at the present stage, under the leadership of President Shavkat Mirziyoyev, he is active in domestic and foreign policy. Significant positive changes have taken place in the relations between Uzbekistan and Tajikistan. Many serious issues, including state borders, reciprocal travel of citizens and other important issues, have been reconciled, which, in turn, will facilitate the development of bilateral cooperation and serve to regain lost opportunities for more than two decades. ...<sup>20</sup> It is obvious that this analytical definition shows that the Tajik side is also interested in the highly developed cultural cooperation of Uzbekistan.

On February 17, 2020, the public association "Ala-Too ayymdary ("Alatov ladies") environmental movement of Kyrgyzstan" declared the President of the

<sup>15</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60

<sup>16</sup> Mirzaev G.R. Ancient fraternal ties are on the way to development (cooperation between the Uzbek and Turkmen peoples). - T.: "Navruz", 2016. 124 p.

<sup>17</sup> . Central State Archive of the Republic of Uzbekistan. M - 7 - fund, 1 - list, 724 - work, 90 - sheet

<sup>18</sup> Public's Speech. March 10, 2018

<sup>19</sup> Public's Speech. March 10, 2018

<sup>20</sup> Public's Speech. July 20, 2018.



Republic of Uzbekistan Shavkat Mirziyoyev "Man of the Year 2019". In a letter to the head of state, Jipargul Bargibaeva, the chairwoman of the association, wrote about the reasons for the decision: At the same time, the Kyrgyz public figure wrote in his letter that the President of Uzbekistan "as a major international politician in resolving the issue of the state border between Uzbekistan and Kyrgyzstan in the interests of the two brotherly peoples, as well as to immortalize the name of the great writer Chingiz Aitmatov" also noted that one of the streets was named after him. At an event held in Bishkek on February 18, 2020, the leadership of Ala-Too Aiymdary raised the quality of Uzbek-Kyrgyz relations in the selection of President Shavkat Mirziyoyev as a candidate for such honorary recognition. It was stressed that the open policy pursued to create an atmosphere of friendship and mutual trust in Central Asia has served as an important criterion.

According to the participants, Uzbekistan is a key security country in Central Asia. Thanks to the strong political will and wisdom of Shavkat Mirziyoyev, today Tashkent effectively implements a multi-vector foreign policy and maintains a balanced dialogue with major centers of the world, while maintaining its sovereignty. Uzbekistan plays a leading role in the implementation of consistent integration processes in Central Asia, and as a leading state in the region, attention is paid to the ability of all neighbouring countries to unite without the intervention of external forces.<sup>21</sup>

Uzbekistan is also a homeland for Kyrgyz. Kyrgyz living here are developing their culture. The inter-regional Kyrgyz center, which opened in Jizzakh in 1992, was the swallow of Kyrgyz national and cultural centers. Later, similar centers were established in other regions. In May 1995, the Kyrgyz National-Cultural Center of Uzbekistan was established. The center now connects the most populated Kyrgyz regions of Uzbekistan - Jizzakh, Syrdarya, Andijan, Fergana, Namangan and Tashkent.<sup>22</sup>

Thanks to the national and cultural centers of the Kyrgyz people, they had the opportunity to study the Kyrgyz folklore and, first of all, its epic "Manas", which is a priceless treasure of world culture. Thanks to the Kyrgyz National Center and its branches, the ancient traditions of the people - "cradle wedding",

"fall" (celebration of the baby's first steps) and others are being revived.<sup>23</sup>

In the process of globalization, the role of the biennial "Sharq Taronalari" International Music Festival in strengthening cultural cooperation between the countries of the region is invaluable, and artists from Central Asian countries are actively participating in it.

The "Sharq Taronalari" International Music Festival, which has been held in Samarkand since 1997, aims to unite nations and peoples of different languages, religions and traditions through music, strengthen cultural and humanitarian cooperation, promote unique national music and singing traditions of the peoples of the East serve to preserve and develop, to cultivate in the hearts of the younger generation a sense of love for art.

Singer Hasani Kamol from Tajikistan took part in the second "Sharq Taronalari" International Music Festival in Samarkand on August 26-31, 1999 with a group of six people.<sup>24</sup>

For example, the next winners of the XII International Music Festival "SharqTaronalari", which took place on August 31, 2019, have been identified. According to him, among the winners of the world, the team "Badakhshan" (Tajikistan) and the team "Ayarkhan" (Russia) were awarded a diploma of the third degree and valuable gifts.

The second place was taken by Archabil from Turkmenistan and Khatan from Mongolia. The first place went to the Kyrgyz duo "Komuzchilar" and Parviz Gasimov from Azerbaijan.<sup>25</sup>

We see that the cultural cooperation between Uzbekistan and Kyrgyzstan has been held since the early years of independence on the basis of relevant documents in this area, as cultural events such as days of culture, friendship festivals. On January 16, 1994, the Agreement on "Cooperation between the Republics of Uzbekistan and the Kyrgyz Republic in the field of culture, health, science, education, tourism and sports" was signed.<sup>26</sup> The holding of the Days of Kyrgyz Culture in Uzbekistan on the basis of this document

<sup>21</sup> . New Uzbekistan. - February 19, 2020. №18 (18).

<sup>22</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60.

<sup>23</sup> Uzbekistan is our common home. - T.: "O'zbekiston", 2004. - p. 42-60

<sup>24</sup> Central State Archive of the Republic of Uzbekistan - 7 - fund, 1 - list, 724 - work, 90 - sheet.

<sup>25</sup> Public's Speech. August 31, 2019.

<sup>26</sup> Central State Archive of the Republic of Uzbekistan, M-7 - fund, 1 - list, 331 - work, 26 - sheet.



testifies to the well-established cultural spheres of the two countries.<sup>27</sup>

An analysis of the materials on cooperation between the two countries shows that economic and cultural cooperation was poorly developed in 2000-2015, which can be explained by the fact that these countries are limited to socio-economic issues in their development and frequent changes of government in Kyrgyzstan.

Deepening bilateral ties in the fields of culture, education, science, art and tourism, which are part of cultural and humanitarian ties, have been identified as high-level goals of the heads of state, and based on this task, relations in this area are being developed.

For example, the visit of the delegation of Batken region to Fergana region in May 2016, and the visit of Osh city administration to Andijan region on August 10 and the business forum of business circles are another important factor in increasing mutual trust between our peoples was confirmed.

During the visit of 130 guests from Osh, Batken, Jalal-Abad regions of Kyrgyzstan to Uzbekistan and Andijan region in October 2016, the two countries agreed to further deepen and develop economic and spiritual cooperation between the Republic of Uzbekistan and the border regions of Kyrgyzstan a memorandum of understanding was signed.<sup>28</sup>

On October 26, 2016 at the Uzbek-Kyrgyz border checkpoint "Dustlik" a 140-member delegation consisting of leaders of Fergana, Namangan and Andijan regions, members of the public was warmly welcomed by the Kyrgyz brothers. This friendly meeting took on a special meaning in the relationship. Dozens of tents were set up in the center of Osh, and representatives of the Assembly of Peoples of Kyrgyzstan - Uzbek, Russian, Uighur, Turkey and German cultural centers - traditionally prepared a table and welcomed the guests.

The culmination of cultural ties between the Uzbek and Kyrgyz peoples was the singing of the Kyrgyz people's epic "Manas" by the bakhshis and the singing of songs praising peace and friendship by children of different nationalities.

Another important document on cultural and humanitarian relations during this visit is the signing of the Agreement on Cooperation between Andijan State University and Osh State University, which will allow

the universities to cooperate in research, training and future student exchange.<sup>29</sup>

Indeed, raising cooperation between Uzbekistan and Central Asia to new heights in the new era will serve to ensure geopolitical balance and stability, peace and security in the region.

## CONCLUSION

Cooperation, brotherhood and friendship of the Uzbek, Kazakh, Kyrgyz, Tajik and Turkmen peoples have historical roots. The living conditions, traditions and way of life of these peoples are closely intertwined the ancient heritage of historical cooperation and ties of the peoples of the region, the development and strengthening of cultural and humanitarian cooperation based on today's fraternal and friendly relations. Uzbekistan's great attention to the development of relations between the Central Asian states in a harmonious, friendly and mutually beneficial manner contributes to the new content of regional integration.

At the same time, the following proposals can be made to further strengthen the current state of cultural and humanitarian cooperation between Uzbekistan and the countries of Central Asia, to develop the regional community:

✓ A number of bilateral and multilateral legal normative documents on cultural and humanitarian cooperation of Uzbekistan with the countries of Central Asia have been signed, monitoring and ensuring their regular implementation;

✓ Formation of an analytical and information group that regularly deals with and resolves internal and external factors that hinder the further strengthening, expansion and deepening of cultural and humanitarian cooperation in Central Asia in the new era, the processes of national-ethnic, friendship and brotherhood;

✓ Establishment of cultural centers in the border areas, maintaining cooperation on transboundary rivers and enclaves, which will contribute to the development of cultural and humanitarian cooperation between the countries of the region;

In short, the consistent development of cultural and humanitarian cooperation between Uzbekistan and Central Asian countries, the creation of favourable conditions for crossing the state border to increase cultural exchanges in the region, increase trade, develop trade and tourism ties plays an important role

<sup>27</sup> Central State Archive of the Republic of Uzbekistan, M-7 - fund, 1 - list, 331 - work, 38-40 - sheets.

<sup>28</sup> Public's Speech. September 5, 2017.

<sup>29</sup> Voice of Uzbekistan. October 29, 2016.



in the development of the condition. Uzbekistan's relations with neighbouring countries are based on the principles of friendship, good neighbourliness, recognition of mutual interests and readiness to engage in dialogue to resolve any issue. This approach will serve to further strengthen stability in the region by creating a "belt of prosperity" around our country, creating decent living conditions for our peoples and the sustainable development of countries.

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# METHODS OF DEVELOPING THE SYSTEM OF SPIRITUAL AND MORAL EDUCATION OF YOUNG STUDENTS THROUGH THE UZBEK PEOPLE'S PERFORMING ART

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## ANNOTATION

*This article addresses the issues of arousing young students' interest in national songs, the ability to understand the ideas expressed through listening to national music, as well as the formation of students' taste in the selection of works.*

**KEY WORDS:** *value, ethics, etiquette, spirituality, education, upbringing, science, pedagogy.*

## INTRODUCTION

Scientific research on the development of young students' interest in artistic values has been conducted in the world's leading research centers and higher education institutions, including the American History Association (USA), the Institute named after Frica Baliet (Germany), the Institute of History Studies in Cambridge (UK), Institute of Historical Research ASOU University (South Korea), Institute of History of the Russian Academy of Sciences. Also, the training of competitive personnel through the formation of music culture in students (France), the systematization of training for the promotion of music culture in higher education (Argentina), the development of youth music culture on the basis of advanced, modern technologies, technological modernization (Australia), mechanisms for improving the pedagogical basis for the formation of musical culture in students of higher education institutions (Kazakhstan). During the years of independence, a number of scientific studies have been conducted on this problem.

## METHODS

From philosophers and sociologists S.Shermuhamedov, Q. Nazarov, N.Kamilov, J.Tulenov, M.Imomnazarov, U.Koraboev,

A.Begmatov, M.Bekmurodov, I.Karimov, A.Umarov, A.Ochildiev, E.Yusupov, N.Juraev, T.Mahmudov, Z.Kafurov and others have studied in detail the spiritual foundations of human perfection, national and universal values, national ideas and ideology, national mentality, morality, ethics, independence and spirituality.

M.Ochilov, O.Musurmonova, S.Nishanova, S.Fayzulina, S.Annamuratova, U.Makhamov, F.Khalilov in their doctoral dissertations and scientific researches on spiritual and moral education of children, formation of spiritual culture of students, the idea of a perfect man in development of pedagogical thought, issues of education and upbringing in higher education institutions have been scientifically and theoretically studied.

## RESULTS AND DISCUSSIONS

The use of samples of national musical heritage is covered in detail in research conducted by educators, art historians like T.G'ofurbekov, A.Jumaev, O.Ibragimov, F.Karamatov, G.Azimova, A.Nazarov, D.Rashidova, A.Odilov, M.Tairov, F.Vasilev, A.Leviev, M.Toshmammedov, A.Lutfullaev, F.Abdurahimova. The arousal of interest in national songs among young students, the ability to understand the idea expressed through listening to



national music, as well as the the issues of formation of students' taste in the selection of works have been studied by S.Fayzulina, S.Annamuratova, F.Juraev, R.Tursunov, B.Lutfullaev, Q.Mamirov, X.Nurmatov, R.Qodirov, Sh.Janaydarov, F.Khalilov, Sh.Raximov, D.Qodirov, I. Reves.

Although scientists in Uzbekistan have conducted research on the development of the spiritual and moral system of students through the art of folk music, the development of geopolitical processes in modern conditions, the escalation of ideological struggles for the human mind and heart, the issues of ways to assimilate our musical heritage folk instruments in the rising generation through modernized didactic support as a factor of resilience have not yet been specifically studied [1.1.]

The activities of musicians and the features of their creative environment, the development of folk music, as well as the mood and other issues of "Shashmaqom" are described in the research of well-known foreign art critics Joseph Elsner, Arthur Jung and Tony Levine [3].

The role of folk instruments in the development of the spiritual and moral qualities of a harmoniously developed generation on the basis of works of national music in the institutions of the world education system is invaluable [4].

In this regard, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has registered the historical monuments, ancient cities, written and oral folk art, the International Music Festival of Oriental Songs, the great song and music "Shashmaqom" as an intangible heritage of mankind, repair of folk instruments, the study of the masterpieces of national music in the countries through the study of their methods are the indications of the special emphasis on its widespread promotion [5].

In order to create conditions such as teaching the basics of music, which is the heritage of our national music, to further improve the skills of instrumental performance, 4 maqom centers and maqom schools in 12 regions, regular competitions and festivals, as well as recordings of maqoms are being organized.

In order to attract and attract students to the art of music in our country the norms, material and technical base for holding the Republican competitions "Yagonasan Muqaddas Vatan", "San'at Gunchalari", "Khor Festival", "Ona Yurt Ohanglari", "Nafosat Gulshani" among higher educational institutions were created[6].

According to the Decree of the President of the Republic of Uzbekistan dated February 7, 2017 PF-4947 "Strategy of actions", "International Festival of Status", "International Festival of Bakhchis",

"Tashkent Spring", international festivals of opera and ballet are held. As a result, great conditions are created for students to increase their interest in the art of music. In particular, the Resolution of the President of the Republic of Uzbekistan on measures to "further develop the art of Uzbek national maqom" needs to be analyzed and reconsidered in the light of new requirements [2.2.] As a result, this resolution the idea of nurturing them as worthy heirs to the living music samples created by authors.

As a result, the essence of this decision lies the idea of educating the students and youth of our country as worthy heirs to the living music created by our ancestors.

Today, the upbringing of young people does not seem to be as important as the upbringing of their spiritual morals. We can also analyze and compare the youth of all countries and draw conclusions to clarify this issue.

What should we pay attention to in educating the younger generation of each country? First of all, it is a matter of listening to his heart and taking every point in the right way. The question naturally arises as to why one should listen to one's heart, because everyone needs a friend who is a sincere interlocutor who shows him the right way, and this friend is first and foremost his parents and mentor. Sometimes a cautious approach is required in the upbringing of young people. The interests and aspirations of the students will be immaculate, and if these actions are not encouraged or developed by the officials around them, the greatest decline will inevitably lead to the loss of these personnel.

First of all, approaching students with difficult but honorable way of life with examples of very beautiful life experiences, psychological influence and showing them the ways of its gradual development can be the basis for the researcher to follow the right path.

Encouraging all the scientific and practical creativity that students are doing gives great results.

At the same time, by showing the works of world composers, Western and Eastern thinkers, and showing the ways they have taken, the young generation will have effective results in their pursuit of their goals.

Today, one of the highest goals is to bring up the young generation as noble and patriotic. Just as the five hands are not equal, there are many talented people with intellectual knowledge among our young people, but it is clear to all of us that there are some among them who have not achieved these qualities. If we, the bureaucrats, do our job diligently, all the educated young generation, regardless of the country in which we live, will join the ranks of educated young people. As noted above, indifference



leads the world to decline, and decline is the indifference of this younger generation. The future of countries with science-enlightened youth is bright. Indeed, science has no boundaries because it can be likened to a well being dug like a well, and it is difficult to see the end of science as the bottom is not visible as one digs a well. It is inevitable that every young generation will achieve the great goals set for them by studying and analyzing the works of our great thinkers, such as Abu Ali Ibn Sino, Babir Mirza, Mir Alisher Navoi, Fuzuli, Berdakh, Fitrat.

Another reform initiated by the President is the participation of young people in international competitions. It is no exaggeration to say that the results of this cooperation are bearing fruit, because the summary of these competitions is open to the creative activities of young people to make friends with the world, to make friends with each other, as well as to demonstrate scientific research and talent. if we say way, we are expressing our opinion correctly.

## CONCLUSION

In conclusion, no one should stop in the pursuit of knowledge, and our students will have to follow the path of science with their own roadmaps, which will require all teachers to stand shoulder to shoulder. A responsible and caring approach to any work will inevitably lead to high results and results.

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## **BLOGS: TYPES AND USE OF BLOGS IN LIBRARIES**

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### **ABSTRACT**

*What is blog and blogging? How to be useful in the field of blog library and information science. Is there a need in the library and information science sector of the blog? And yes, how. The blog follows someone who writes and thousands of people read it. Blogs are published continuously and periodically. Thus the constant work is called blogging. Let's get some information about the blog sine field of some library and information science sector that has been working in the service for years.*

**KEYWORDS:** *Library, Blogs, Weblog.*

### **INTRODUCTION**

A Weblogs or blog is a medium that takes on ideas, views, and suggestions from everyone. This is from a web application in which it is posted after a certain or indefinite time gap. It is not necessary to post at a certain time. It is also early or late. Every blog tells the story. But it is also about a person, organization, event, environment, health care, disasters or a subject, language, literature, etc. The person who writes and creates a blog is called a blogger and constantly maintains it, constantly posting in it is called blogging.

The stories posted in the blog, criticism on the subject, comments, advice, suggestions, are made. It is discussed by a large community and the action gets a big boost. Readers with different interests are inspired to work and think. And information is available. From which information is exchanged.

The blog is defined in many ways.

1. It is "a Web application that contains periodic, reverse chronologically ordered posts on a common Web page" (Wikipedia, 2008).
2. To Peter Scott (2001), a blog is "a page containing brief, chronologically arranged item of information. A blog can take the form of a diary, journal, what's new page or links to other websites".
3. Weblog is a dynamic, flexible tool that is easy to use whether you are creating with it or simply viewing the results (Richardson, 2004).

The blog phenomenon was in the 1990s. Blog she became a source of main diaries, later opinions and information at the end. No matter how small or large the information may be, blogs have become the ideal medium to publish information. Blogs combine resources. Which is shared by email covers small issues and areas of interest such as your private position, your point of view, advocacy, etc. Those who have a viewpoint of view, news, criticism, or any other topic published in the blog have to be given an updating from time to time. The use of blog users and blogs has also increased over time. According to the original definition of the blog, the blog is a web page called "Weblog". (Now known as a blog.) This is constantly published. Specific topics or web links the first new posted page appears first in the form of small, often unarranged small entries of eighth comments. There is a science (LISNEWS.com) in the field of library and information that accepts postings from its readers.

### **TYPES OF BLOG**

There are many types of blogs. The way writing and delivering content differs.

1. **By media type:** The videos that contain them are called vlogs. The one shaving link is called linklog. The site that includes the sketch is called the sketchblog. The site that includes the photos is called a photoblog. A



blog with short posts and mixed media types is called tumblelogs.

2. **By device:** The block is also defined and named after the type of device used by the composing device, such as a blog created by a mobile phone or PDA device called a moblog.
3. **By topic:** Some blogs are based on the subject. Fashion blogs, project blogs, legal blogs, drama blogs, school blogs also have personal ownership rights. They are private. Most of the time, they are business or business. Blogs are also written for marketing or for enhancing communication and culture. Corporate blogs are written for brand or PR objectives.

### USE OF BLOGS IN LIBRARIES

The blog is not a new process for libraries as it is already an extension of what the librarians have been doing. Identify, organize and share library information with everyone. The blog provides us with opportunities to give more responses. Students/faculty can publish a news post through a blog if it is published. Also, the book is reviewed, commented, discussed, invited, event notifications, listing new edits, etc. are easily done through the blog.

All information can be delivered to the librarian, disseminated to the information efficiently through a timely blog. As everyone developed, the blog is also approaching library science to develop itself. Weblog links in libraries can be used to deliver news to users on time. The page that is mainly from the weblog is a library. It has many causes. It is updated on time by one person but has multiple users. Someone has full control over who can post and who cannot post on the blog site. Thus, new technical changes in the library should be followed properly on time. RSS feed and blog library services are prohibited. Yet it has gained popularity Blog one. It is a free and easy medium that makes information available to everyone by gathering information to users. Researchers can participate in discussions and easily updating blogs in their way. Blog newsletters also become an option as they are published on time and continuously.

Hane 2001 Ma libraries describe the benefits of reading a blog written by him. Library highly reputed business way blog Weaver (2003) said that the library can use users as a blog communication tool. Saying so makes them feel amazing because they like the format for the job. She is endorsed by Alcock (2003). It says library users can use these tools to report changes. Also, add and news. It is also useful for library users to comment critically on

library services. Schwartz (2005) has also said that the library can use a blog to provide its new and modern information. Also, blogs are useful for announcing new books on local events, library news, and its new content.

Blogging tools don't require much of a user's technical skills. How publications are made, that's how they're made. But here are two things to think about. (Brennan, 2007) As for the blog, it tells the effect of libraries.

A. Whether you should create a blog for the library or not.

B. Whether you can use that blog or not. Provision of reference services Libraries can use blogs because local sings up-to-date information on events. Can fulfil their role as news for their society. Some library news is nationally and internationally. The library is also useful for support.

1. People still use blogs to encourage them to provide new library announcements.
2. To provide service to all things at the same time, to draw attention to new resources.
3. Criticism remarks on domestic and international events.
4. To give news on library services.
5. Helps connect users' feedback, comments, and requests to the library.
6. Those who never visit the library in person. Blogs can be used to inform them of current services for publishing useful news or resources they like through blog no.
7. To list new acquisitions and to post book reviews of library services news, events, announcements as well as books with students, staff, faculty.
8. RSS Feed is also an app. In which user responses, choices are known. What they want to tell us is the place to handle it.

Has started using blogs to share ideas and seek feedback with key officials and colleagues comment also notifies, highlights his opinions, and Gives readers a platform to speak. The tendency to give and take creates a community spirit. As the blog gives advanced news, it is the best way to stay in the present appears in blogging, print, online magazines, journals.

The library separates all these from each other. The filter is done by the librarian. Saves time by working on his daily information or select group. Blogs are useful for the promotion and delivery of things.

### BLOGS EXAMPLES

1. **Librarian.net:** This blog has been run well since 1999 by village librarian jesamin west. The library presents its thoughts and observations about science, its evolutionary



technology. The first single editor library says the oriented way blog.

2. **David Lee King:** Is a digital branch and services manager. Topeka and Shaw were working in the public library. Library websites, king blogs, libraries write blogs about the future of digital technology in terms of science. (Not writing about fun digital trend topics like video blogging and Web 2.0).
3. **LISNEWS:** Since 1999, the library and information science news. Provides newcomer readers, reviews, interviews, articles, and links.
4. **Library of Congress Blog:** Library of Congress has an official blog. Blog author Matt Raymond writes a blog about news, agriculture department speeches, and messages from the country's main library. He also serves as a senior adviser to UNICEF.
5. **Library Connect:** Library and Information Science techniques, methods, issues, Elsevier website sifts the inventions and approaches of libraries around the world weekly.

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## CONCLUSIONS

The blog has brought many benefits to people. This includes the library and information science sectors. Budding readers get information, reviews, events, articles, links, interviews on their field sitting at home through online medium. Also, the necessary techniques, technology, technologies are known in the future. To list new edits, to inform the library's current services, users' feedback is known about criticism comments. Thus, blogs are useful in the library and information science sector in many ways.

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## DRYING TECHNIQUES OF SOME SELECTED ORNAMENTAL FLOWERS-A REVIEWS

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### ABSTRACT

*Drying of flowers is the method of maintenance of flowers or removing water and moisture. Dehydration is most important for getting dry flowers. There are Many different types of methods use for removing moisture contain from flowers are air drying, embedded (sand, borax, silica gel, and other materials) press drying, freeze drying, microwave oven drying, hot air oven drying, Glycerin drying, freeze drying. Chrysanthemum is one of the most widely cultivated garden flowers and ranks popularity. The Chrysanthemum flower has fully double flowers with flat petals and the central disc is generally absent. Many of the commonly grown marigolds are cultivars of African and French marigolds. Flower petals of African marigold are the best source of carotene for coloring foodstuffs. From the dried flowers varied manufacture are made and use like petal embedded handmade paper, press dried flower products, candle making, pot pourri, floral jewelry etc. This dried plants and flowers materials also used in industry. For chrysanthemum embedded drying is the best in which flower shape, size, structure, colour are maintained and for marigold microwave and air drying techniques are best in size, colour, shape, colour are maintained.*

**KEYWORDS:** *Drying Techniques, Chrysanthemum, marigold, embedded, microwave*



## I. INTRODUCTION

A. Drying of flowers is the method of maintenance of flowers or removing water and moisture. Dehydration is the most important for getting dry flowers. There are many different types of methods use for removing moisture contain from flowers are air drying, oven drying, embedded drying (sand, borax, silica gel and other materials) microwave oven drying, freeze drying, press drying.

### B. Drying methods

1) *Air drying*: This one of the simplest and cheap method of drying techniques. It is conceived as the oldest and uncomplicated method for drying flowers. The simple and easiest and most effective way to dry. Flowers are tied in twine, ribbon and hang them warm air in the dark room this process take 1-2 week for complete dry and its depends upon atmospheric humidity, temperature, moisture, shape of flowers and air velocity. (Datta, S.K., 2015).

2) *Sun drying*: Sun drying is requiring a good deal of care in this method the plant equipment is embedded in the sand for drying. This medium is filled in container and reveal regular to the sun for expeditious dehydration. India is followed this method for drying many flowers. In the sand the flowers are embedded in flipped from and put in the sun light for drying for day or two (Murugan. A *et al.*, 2007)

3) *Press drying*: Press drying is one of the most common and simple method for drying flowers. This method is still considered to be the most simplified or familiar method for preserving flowers and foliage. In this flowers shape cannot be maintained. Buy original colour is retained. For drying it take up to 3-4 weeks because it depends on the moisture content of tissues in flowers. (Datta S.K *et al.*, 2015)

4) *Hot air drying*: for expeditious dry in convention chamber, it has fan inside. For quick dehydration. In this method temperature should maintain between 30<sup>0</sup> to 35<sup>0</sup> C. hot air drying method take few hours to few days for completely to dry flowers. This method is advantage as atmosphere does not have any role for dehydration. This process is quick and the quality of the product is very good. (Raval *et al.*, 2020)

5) *microwave drying*: this method takes only a 5-10 minutes in microwave. Flowers embedded in sand. After this process flowers are taken out

from microwave and put in room temperature for some time because flower materials completely dried. The embedded flower materials were dehydrated in microwave oven. Microwave oven dried flowers looks fresher and more attractive and colorful than that obtained by different methods. (P. Radha rani *et al.*, 2015)

6) *embedded drying*: embedding is the one of the most vital processes for removing moisture contain in this method. Retention flowers petals and color is good. Silica gel, borax, corn Meal, sand disused for at the base of flower either before or after drying. In this method use containers like desk, trays, earthen pots etc. container size depends upon the size of flowers to be embedded. In this method moisture content in the flower is perfectly absorbed by around material. Sand or silica gel is poured without any hurring, carefully and gently so that flowers filled up 2.5cm from bottom. Silica gel is the perfect desiccant. Drying process is complete when flowers are crumble and dry to touch, but not brittle. For removing water contain from flowers, silica gel (60-20 mesh) is the perfect absorptive. (Jain. R *et al.*, 2016)

## II. SELECTED FLOWERS

### A. Marigold

Marigold (*Tagetes erecta L.*), belongs to the family asteraceae. Marigold commercially cultivated in many countries for ornamental, medicinally and industrial's uses. African marigold is one the vital for business flower crops. Marigold native is central and south America, especially Mexico. Marigold is clearly organizing in two groups., African marigold and French marigold (*Tagetes Patula L*) In Karnataka, Andhra Pradesh and Maharashtra have big areas under contract cultivation of marigold. Most of quintessence units are located in Kerala and Andhra Pradesh. The African marigold (*Tagetes erecta*) have big, reduplicate, yellow to orange flowers from mid-summer to frost. Flower probability measure up to 12.7 cm across. Marigold maximum high varies from 24.5 to 90cms. African marigold are super bedding plants. African marigold is also adverted to as American marigolds (Manik h *et al.*, 2015), (Misra *et al.*, 2016) Duration of flowering the genetic control of the nature and changes in their rate suitable to environmental wayer it could be the possible case of review venation. (Panwar *et*



*al.*, 2013) reported that in African marigold common high grade for duration of flowering.

### **B. Chrysanthemum**

Chrysanthemum is belonging to the asteraceae family. Chrysanthemum is one of the nearly all over widely cultivated garden flowers and line in likely next to the rose is approval. Chrysanthemum can be arranged in classes inside many groups due to shape, size and colour of the flowers. The primary groups are under:

- a) *Incurved*: The ray flowers turn upwards and inwards at the middle of the blossom to form a globe-shaped.
- b) *Incurving*: Ray inflect loosely and asymmetrical and do not form a ball as upon.
- c) *Reflexed*: The flowers are plunging in one or not another that five rows with a primary central disc.
- d) *Pompon*: flowers are very tiny sized disc is absent or covert.
- e) *Rayonnaetes*: the petals are quilled. (Misra *et al.*, 2016)

Research in dry flowers in India is limited and published information on dry flowers techniques is approximately nominal. According to Bull *et al.*, 1999 chrysanthemum, marigold, roses are the best suited to hot air drying and microwave drying. Silica gel is ideal drying agent Prasad *et al.*, 1997. Singh and Dhaduk, 2005 observed that drying process at high temperature, oven showed fast result better than river sand and borax. Arvinda and Jayanthi., 2004 Standardized the drying technique methods like oven drying, sun drying, microwave drying for chrysanthemum (button local type) flowers and constitute that microwave drying with silica gel gave the perfect result for retaining colour, petals or shape of flowers. While in oven drying techniques white sand was found the perfect overall acceptability. Bhalla *et al.*, 2006 studied that most carotene and most least size reduction obtained when flowers were embedded in silica gel and dry on 3<sup>0</sup> C for 24 h in hot air oven and microwave oven for 35 seconds for drying. According to Champoux *et al.*, 1999 flower hung in dark room that took maximum 8 to 9 days for drying. According to Paul and shyalla 2002. the platform harvesting for other flower varies according the species and flower desired. According to Bhutani 1990 if sheets are kept in oven at an appropriate temperature that drying time can be less. Smith *et al.*, 1993 reported that

flowers like globe amaranth, chrysanthemum, and many different type of flowers unbroken and long lasting can be picked up for air drying techniques partially opened; as they flower proceed to open duration drying and some different are picked when they are perfectly mature. (P Radha rani *et al.*, 2015) studied that the numeral of time taken to drying the flower is more in river sand drying method i.e. 2 weeks, whereas chrysanthemum, daisy and gladioli has taken minimum amount of time approximately 8 days. Chrysanthemum, carnation etc. suitable for sun drying methods.

According to Datta *et al.*, 1997, The drying method can be quacked by placing the herbarium press under a hot air oven at 45-50<sup>0</sup> C for 24 hours. Embedded drying is admitting to undo petals becoming smaller in size and preserving the good flowers petals, shape, and colour condition. Datta 1997 reported that the Blotting papers, as well flowers are required to turn on as an alternative dry as storage of water contain and cellulose leads to microbial attack. For the most part, this method took 1-3 week but, time can be reducing by keeping on the oven at the proper temperature. Jain *et al.*, 2016 reported that the high temperature may exact the process but damages the flower pigments. It is too reported that the condition of flowers uncovers under 45<sup>0</sup>C temperature then flowers like chrysanthemum, gerbera, helipterum is dried within 48 hours where French marigold and African marigold are taken 72 hours and 96 hours respectively for perfect flower drying. According to Rengasamy *et al.*, 1999 observed that the sun drying is rapid process of dehydration and it is handy and depended on atmosphere. Sujata *et al.*, 2002 noted that flowers like chrysanthemum and zinnia dried good with minimum shrinkage when dried under sun. Bhutani *et al.*, 1990 recommended during study embedding method including with oven drying at 45<sup>0</sup> C to 50<sup>0</sup> C degree about 45 hours for drying of heliichrsum, chrysanthemum, acroclinum. According to Joykumar *et al.*, 1997 that the hot air oven drying techniques at 50<sup>0</sup> C cook beady time for drying aster (36 hours) and chrysanthemum (22 hours) flowers. Rengasamy *et al.*, 1999 reported that Tagets patula took 72 hours in oven at 40-44<sup>0</sup> C for drying. Kumar and parmar suggested that the flowers were dried at 45-49<sup>0</sup> C for 24-28 hours in oven drying and



then accord to quieten in open for a few hours and then taken out and used. According to Dahiya *et al.*,2003 get the best quality dried flowers having lowest water contain weight and high visual score at 50<sup>0</sup> C for 48 hours in the oven drying in chrysanthemum. Gouin *et al.*,1993 listed that some flowers like chrysanthemum, gladiolus and plasy are good for embedding in sand drying method. Bhalla *et al.*,2002 said that silica gel gave best result while river sand was not given result of overall admissibility of flowers. Moona *et al.*, 2004 found that minimum size change and maximum carotenoid content was received when flowers were embedded in silica gel. Arvinda and Jayanthi *et al.*,2004 studied that meanwhile different media silica gel as a medium noted maximum score of texture and shape in chrysanthemum. Datta *et al.*,1999 embedded flower with silica gel is suitable and put in room temperature for perfectly drying.

According to Sansakri. A and Anand. M *et al.*,2014 microwave oven drying technique process is done instead of entering in liquid state. As a result, products get from this process are retain their original size, shape and colour. In embedded method 40 to 45<sup>0</sup> C degree temperature electrically operated hot air oven controlled it used for drying flowers. Jain and Singh *et al.*,2016 noted that the India is exports 70% of the total share of floriculture products. Dried flowers and plant materials is important. According to Bhutani *et al.*,1990, Bhalla and Sharma, decorative floral craft item for drying techniques like oven drying, sun drying, microwave drying, freeze drying, embedded drying, air drying it can be used.i.e. cards, wall hanging, floral design, calendars etc. According to Baskaran *et al.*,2009 studied on condition that store in dry from remain dried beautiful for long-lasting periods. Dried chrysanthemum flowers are remarkable requirement in the global trade. For that reason, remain in this view the formidable capacity of dried chrysanthemum flower the relevant studies were made to systematize the dehydration technology for chrysanthemum flowers (*Dandranthema grandiflorum Tzvelev*) A real contents of published works included research and reviews are attainable in embedding drying method and dehydration of perlite, powdery particles, borax, silica gel river sand and their compounds. Types

of a size. The main parts of dehydration plant ornamental and flowers leaves through embedding drying techniques Orduno and Baltazaret *et al.*,1995, Bhalla *et al.*, 2006, Bhattacharjee and De *et al.*, 2003. According to Gouin *et al.*,1994 reported that listed some flowers and leaves like chrysanthemum, gladiolus, butterfly weed, black Eye-Susan, anemone and pansy is good for shade drying. According to Joykumar 1997 shade drying needed longer time for drying, 66 to 90 hours reputedly in flowers like chrysanthemum and aster. Bhutani *et al.*, 1990 asserted that flowers and leaves could be embedded in white silver sand in plastic, earthen container or metallic gave a good result. Smith *et al.*,1993 suggested storage of dried flowers with river sand in a strong carton to save the flower petals from breaking petals. Datta *et al.*, 2001 reported that material which used for flowers and foliage and embedding drying should be good. It should not chemically act with flower parts. Fine sand has been found to be the good material for embedding because it is simply to handle, heavy and doesn't act with water vapor. Lourdusamy *et al.*,2001 reported that floral like small size marigold, chrysanthemum, pansies embedded in sand in an upside down fashion was dry in days. According to sujatha *et al.*,2001 flowers like zinnia and chrysanthemum dried good with minimum shrinkage after placing them in a box containing stand and it takes few days for perfect drying. Pertuit *et al.*, 2002 suggested that burying the flowers in a mixture of sand and borax (2:1) result in floral that are little bit stiff than those preserved with "hang and dry" method, but the partials tend to cling to some flowers. Sand have rough border may produce little holes in the flower petals. Similarly, sing and Dhaduk *et al.*, 2004 found that borax reason dim of colour and rough texture of petals. According to Datta *et al.*,1999 embedded flowers and foliage with silica gel in a right holder and kept in room temperature for perfect drying. Orduno and Baltazar *et al.*,1995 noted that river sand or sea sand in attachment of borax for drying gerbera and rose they have reported that the rose dry good in river sand which include high ratio of borax within 15-20 days' period, when sea sand and river sand with low ratio of borax for 10-15 day best for gerbera. According to Joyce *et al.*,1998 Glycerinisation is comparatively cheap



and less expensive, glycerin has a high water attracting capacity. Westland *et al.*,1995 reported that preserving leaves and berries in glycerin and hot water solution brought leaves and berries put into almost long lasting category. Paul and shyalla *et al.*,2002 studied that the in glycerin drying, feature of the product was best as moisture in flower was diverted by a mixture and glycerin. The use of glycerin in drying method is reported to be successful with almost all foliage. Semant *et al.*,1993 observed that one stage of glycerin mixed with 2 parts of hot water was typical mixture for twigs of 26 plant species to comprise at room temperature. The equipment should in solution as late as full absorption has taken place. According to Prasad *et al.*,1997 reported that the Glycerin serves as a best source for microorganisms, so a pinch of antibiotic is important to detain microbial growth in the dried specimens. Bhattacharjee and De *et al.*,2003 reported that many cultivars of carnation florals were cryodried and resided naturalistic in looks after being placed in freeze dried (-20<sup>0</sup> C) for 7 days. White *et al.*, 2002 has noted that microwave oven drying floral were looked more colorful and fresh than obtained by other techniques. Chen *et al.*, 2000 had appraise the effect of different freezing time (2 -4 hours), vacuum drying temperature (27<sup>0</sup>C, 37<sup>0</sup>C,47<sup>0</sup>C) and freezing temperature (-35<sup>0</sup>C) on water content, petals, stems and colour of roses. Sohn *et al.*, 2003 studied that the impact of freeze drying for 15 days on the texture and colour of roses hybrid (CVS Tineke, Saphir, Roulette, Golden Gate, Rote Rose). According to Datta *et al.*,1999 had given the drying time for different flowers in hot air oven at temperature of 45<sup>0</sup> -50<sup>0</sup> C. he had also noted the name of flowers right for oven drying method.

### III. CONCLUSION

Based on literature survey, here we have concluded that for chrysanthemum flower, microwave drying techniques are the best in which shape, size, colour are maintained compared to other and for marigold flowers wave and air drying, microwave and hot air drying is best in colour, size, shape, texture, maintain. So we can dry flowers by using this types techniques and make so many products like dry flowers jewelry, pot, pourri, candle making, photo frames, pressed dried products, handmade paper. The

dehydration technology, standardizes by CSIR-NBRI, will help to industry for dry flowers in agrestic areas.

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## **IMPACT OF DIGITAL PAYMENT ON RETAIL SHOPS- WITH REFERENCE TO MANGALORE CITY**

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### **ABSTRACT**

*As India is moving towards digitalization era, hence most of the transactions are taken place through digital gazettes. When digitalization was introduced in India, the people were not much aware of these systems. But gradually they start learning these new techniques. The advanced digital wallet system, allows users to send/receive payment instantly within a fraction of seconds. For the study, the researcher has considered few small retail shops, which includes grocery shop, fancy, tailoring shop, vegetable shops, beauty parlors, medical stores. The study was undertaken in and around Mangalore city, the sample size for the study is 100 respondents who use digital payments for their transactions. The main purpose of this study is to determine the benefits and problems faced by retail shops from digital payment system. The results show that There is no association between usages of digital payment system and age of the customers. The study also highlights that, there is no association between problems of digital payment system and age of the customers.*

**KEY WORDS-** *digital payment, retail shops, benefits and problems.*

### **1.0 INTRODUCTION**

In the fast-growing business environment, digital payment system plays a major role. Most of the businesses are get involved into digitalization. Most of the major business activities, business transactions are turned into digitalization era. The people of the developed and developing country like India, are already stepped into a digitalization system. In India most of the transactions are taken place electronically. Majority of the customers do not carry a money, but at the same time all will have smart phone as well as debit/ credit cards in their wallets. This shows that, without physical cash, one can fulfill his needs, do all the business transactions by using these electronic gazettes or digital payment modes.

There are plenty of advantages from digital payment modes, like fast payment, convenient, easy to use, no need of carrying cash, free from fear of theft, increases the prestige of the customers, gets special offers and many more. At the same time, digital payment system is not free from limitations, the main drawbacks of this systems are server

problem, connectivity issues, forgetting the passwords, fear of hackers, fear of fraud, lack of knowledge, technical problems, absence of physical cash, need to keep the phone constantly charged and so on.

### **1.1 OBJECTIVES**

The important objectives of the study are as follows:

- To know about digital payment system.
- To determine the benefits of using digital payment on retail shops
- To highlight the problems faced by retail shops from digital payment system.

### **1.2 HYPOTHESIS**

The Hypothesis drafted for the study are as mentioned below:

- 1] H<sub>0</sub>: There is no association between usages of digital payment system and age of the customers.
- 2] H<sub>0</sub>: There is no association between difficulties of digital payment system and age of the customers.



### 1.3 METHODOLOGY

For the study both primary and secondary data are used to gather the information. Primary data is collected from structured questionnaire method and secondary data is collected from journals and websites. Data analysis will be done by using descriptive statistics. Association will be estimated by Chi-Square test. A statistical package SPSS vers.23.0 will be used to do the analysis. The p less than 0.05 will be considered as significant.

The statistical tools like frequency, percentage and mean are also used to derive the inferences. Total sample size used for the study is 100 respondents of Mangalore city.

### 1.4 STATEMENT OF THE PROBLEM

Digital payment system is one of the fastest growing information technologies in the banking sector. Most of all the transactions are happening through digital modes. This will help both the customers as well as the employees of the bank. The present study is conducted in Mangalore City. It is a place where business activities are happening in a huge number. It is one of the fastest growing City. Hence this study is conducted to know the impact of digital payment in retail shops.

### 1.5 ANALYSIS AND INTERPRETATION

**Table 1: Demographic profile of the respondents**

Particulars	No of respondents	Percentage
<b>Age</b>		
Less than 30	5	5 %
30-40	34	34 %
40-50	57	57 %
Above 50	4	4 %
<b>Total</b>	<b>100</b>	<b>100 %</b>
<b>Type of respondents</b>		
Medical shops	10	10%
Fancy	15	15%
Grocery shops	20	20%
Tailoring shops	10	10%
Beauty parlor	19	19%
Vegetable shops	12	12%
Bakery	8	8%
Stationery shops	6	6%
<b>Total</b>	<b>100</b>	<b>100%</b>
<b>Years of experience</b>		
Less than 5 years	10	10 %
5-10 years	51	51 %
10-15 years	24	24 %
More than 15 years	15	15 %
<b>Total</b>	<b>100</b>	<b>100 %</b>
<b>Levels of income</b>		
Less than 25000	12	12 %
25000-40000	42	42 %
40000-60000	35	35 %
More than 60000	11	11 %
<b>Total</b>	<b>100</b>	<b>100 %</b>
<b>Educational background</b>		
SSLC	5	5 %
PUC	29	29 %
DEGREE	46	46 %
OTHER	20	20 %
<b>Total</b>	<b>100</b>	<b>100 %</b>

Source: Primary Data



Study shows that 57% of the respondents belongs to 40-50 years of age, 34% of them are having an age of 30-40 years, 5 respondents belongs to the category of less than 30 years are only 4% of the respondents are having more than years of age.

Study shows that the respondents are belong to different retail shops such as 20% from grocery shops, 19% from beauty parlor, 15% from fancy, 10% each from medical shop and tailoring shop and 6% from stationery shops.

Study reveals that % of the respondents are having an experience of 5-10 years, 24% of the respondents were having an experience of 10-15

years, 15% of the respondents were having more than 15 years of experience on there field.

42% of the respondents are having a monthly income of 25000-40000, 35% belongs to the category of 40000-60000, 12% of them are having less than 25000 income and 11% of the respondents are belongs to more than 60000 monthly income

The table shows that 46% of the respondents were degree holders, 29% of the respondents are having an education of PUC, 20% of them are beauticians, tailors, and only 5% of the respondents are having an education of SSLC.

### 1.6 SURVEY QUESTIONNAIRE

**Table 2: The different digital payment modes**

PARTICULARS	NO OF RESPONDENTS
Google pay	65
Phone pay	12
PAYTM	24
Amazon pay	15
Internet banking	59
Debit card	72
Credit card	31

Source: Primary Data

The study shows that 65 respondents use Google pay, 12 respondents use phone pay, 24 respondents prefer PAYTM, 15 respondents use Amazon pay, 59 respondents use Internet Banking,

72 respondents use debit card and 31 respondents use credit cards. the above table shows that debit card and google pay are mostly preferred by the customers for digital payment mode.

**Table 3: different uses of Digital Payments.**

Particulars	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean
Fast payment	19	65	10	4	2	4.9
Convenient	19	76	5	Nil	Nil	4.14
Increased customers	12	64	10	9	5	3.69
Reduced credit burden	10	50	15	20	5	3.4
Free from handling the coins	20	58	12	9	1	3.87
Easily traceable	20	76	4	Nil	Nil	4.16
Low risk of theft	15	63	14	8	Nil	3.85

Source: Primary Data

Study discovers that, the mean value for different usages of digital payments to retails shops are fast payment (4.9), convenient (4.14), increased customers (3.69), reduced credit burden (3.4), free from handling the coins (3.87), easily traceable (4.16), low risk for theft (3.85). Respondents were strongly agreed towards, the following merits of

digital payments that is fast payment, convenient and easily traceable.

**H0: There is no association between usages of digital payment system and age of the customers.**



**Table 4: Results of chi-square test**

Chi square value	D.F	0.05 level of significance	Result
18.6988	12	21.026	Not Significant

The calculated value of Chi square =  $(O-E)^2/E = 18.6988$  is less than the tabulated value 21.026 at 12 degrees of freedom, it is not significant.

Hence, we accept null hypothesis and conclude that “There is no association between usages of digital payment system and age of the customers”.

**Table 5: Problems of Digital payment**

Particulars	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean
Fear of fraud	18	45	30	7	Nil	3.74
Lack of knowledge	10	51	12	16	11	3.33
Server problems	20	64	11	5	Nil	3.99
Connectivity issues	16	68	6	9	1	3.89
Fear of hacking	4	90	6	Nil	Nil	3.98
Technical problems	15	81	4	Nil	Nil	4.11
Absence of physical cash	17	76	4	2	1	4.06
Need to keep the phone constantly charged	15	72	12	1	Nil	4.01

Source: Primary Data

Respondents were strongly agreed towards the below mentioned limitations of digital payments such as technical problems, absence of physical cash and need to keep the phone constantly charged. The mean values are fear of fraud (3.74), lack of knowledge (3.33), server problems (3.99), connectivity issues (3.89), fear of hacking (3.98), technical problems

(4.11), absence of physical cash (4.06) and need to keep the phone constantly charged (4.01).

**H0: There is no association between difficulties of digital payment system and age of the customers.**

**Table 6: Results of chi-square test**

Chi square value	D.F	0.05 level of significance	Result
5.4175	12	21.026	Not Significant

The calculated value of Chi square =  $(O-E)^2/E = 5.4175$  is less than the tabulated value 21.026 at 12 degrees of freedom, it is not significant. Hence,

we accept null hypothesis and conclude that “There is no association between difficulties of digital payment system and age of the customers”.

**Table 7: Do you want to use the Digital payment system in future.**

Particulars	No of respondents
Yes	100
No	Nil
Total	100

Source: Primary data

The table shows that, all the 100 respondents want to continue using digital payment modes for their business transactions.

### 1.7 SUGGESTIONS

The suggestions of the study are dropped down as follows;



- Proper awareness programs should be conducted to the customers, so that without any hassles they can get the benefits.
- Customers should be informed to frequently change the passwords, and pin numbers, so that they can free from the fear of hackers.
- Information should be given to the clients, regarding not to share their digital payment details with others.

### 1.8 CONCLUSIONS

Digital payment system is one of the awesome technologies established by the banking sector. This has benefited many customers in an increased number. But most of the programs of digital payment modes are not known by all the customers. Hence the bank staffs should be informed the same to all e-banking customers. The study reveals that all the 100 respondents would like to use digital payments in the future also. But at the same time the customers also be aware of all the transactions, if anything goes wrong in their account, same as to be informed to the bank. So that necessary actions can be taken. Alertness and safety is very important while using digital payment systems.

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## **STUDIES ON *LACTOBACILLUS* BACTERIOICIN FOR PRODUCTION AND CHARACTERIZATION AGAINST SOME PATHOGENIC AND FOOD SPOILAGE BACTERIA**

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### **ABSTRACT**

Bacteriocins produced by lactic acid bacteria (LAB) are a heterogeneous group of antibacterial proteins that vary in spectrum of activity, mode of action, molecular weight, genetic origin and biochemical properties inhibitory substances include bakery and dairy products, cereals, and bread and cheese. Nisin is a natural bacteriocin produced by *Lactococcus lactis*. It has a broad inhibitory effect against gram positive bacteria. It can be destroyed by proteolytic enzymes that exist in food systems. We found that, minimum inhibitory concentration of free nisin was higher than encapsulated nisin in both culture media and cheese for *L.monocytogenes* and *S. aureus*. *E. coli* resisted to any form of Nisin in culture media but not in cheese. Nisin A is being used at the concentrations of 100-200 ppm in the preservation of, dairy products such as cheeses and milk. In addition, encapsulation protected nisin against cheese fat and protease. Reuterin is a water – soluble non- proteinaceous product produced by *Lactobacillus reuteri*. It has been described to have antimicrobial effect against certain gram- negative and gram- positive bacteria, yeasts, fungi, and protozoa. It inhibits *Salmonella*, *Shigella*, *clostridium*, *Staphylococcus*, *Listeria*, and *Trypanosoma*. The aim of present work was to study the combination of Nisin and *L. reuteri* against eight bacterias (*Staphylococcus aureus*, *Salmonella typhi*, *Escherchia coli*, *Klebsiella pneuoniae*, *Pseudomonas aeruginosa*, *Bacillus subtilus*, *Bacillus cereus*, *Streptococcus spp.*) Reuterin was isolated from *L. reuteri* during the anaerobic fermentation of glycerol using Gas Pack EZ Anaerogas pack container system on MRS agar. Minimum inhibitory concentration of bacteriocins (Nisin, crude *Lactobacillus reuteri*, Nisin + crude *Lactobacillus reuteri*) was studied using broth micro dilution method. Bacteriocins reuterin showed best synergism for both gram positive and gram negative bacteria used in the study. MIC of Bacteriocin (Nisin) alone against tested strains was determined to be 0.017+<sub>-</sub>0.001 to 0.40+<sub>-</sub>0.002 mg/ml. crude *Lactobacillus reuteri* alone was determined to be 0.016+<sub>-</sub>0.001 to 0.033+<sub>-</sub>0.001mg/ml which is 3 or 2 fold higher for MIC of Bacteriocins(Nisin + crude *Lactobacillus reuteri*) in combination i.e. 0.010+<sub>-</sub>0.001to 0.029+<sub>-</sub>0.001mg/ml. The synergistic activity of Biopreservative i.e. bacteriocins (Nisin and crude *lactobacillus reuteri*) with chemical preservative (sorbic acid) for pathogenic bacteria was evaluated using well diffusion assay. The diameter of inhibition zones increased on combination. The highest zone increased was seen in case of Bacteriocins in combination i.e. 29+<sub>-</sub>0.06 AB-3 (*E.coli*)

**KEYWORDS** - Antimicrobil activity, Bacteriocin, Food Preservation, Lactic Acid Bacteria.



## INTRODUCTION

Lactic acid bacteria (LAB) are food-grade microorganisms used for the production of numerous fermented food products to improve their flavor, texture and shelf-life. LAB produce antibacterial compounds that include organic acids, diacetyl, hydrogen peroxide and bacteriocins, which are known to reduce food spoilage and growth or proliferation of pathogenic bacteria. Use of these naturally produced compounds as food bio-preservative agents has therefore gained increasing attention in the food industry and now represents a promising way to preserve food without chemical agents, especially in ready-to-use. Bacteriocins may also find use in the preparation of products that are not submitted to sufficient thermal sterilization during their production, since they represent a risk of contamination by pathogenic bacteria such as *Listeria monocytogenes*, known in the art to be responsible for numerous worldwide outbreaks.

*Lactobacilli* are important organisms recognized for their fermentative ability as well as their health and nutritional benefits (Gilliland, 1990). They produce various compounds such as organic acids, diacetyl, hydrogen peroxide, and bacteriocin or bactericidal proteins during lactic fermentations (Lindgren and Dobrogosz, 1990) the antimicrobial

properties of *Lactobacilli* are of special interest in developing strongly competitive starter cultures for food fermentation. *Lactobacilli* exert strong antagonistic activity against many microorganisms, including food spoilage organisms and pathogens. Production of the primary metabolite, lactic acid and the resulting pH decrease is the main preserving factor in food fermentation. In addition, some strains may contribute to the preservation of fermented foods by producing other inhibitory substances, such as bacteriocins.

Control of both pathogenic and spoilage microbes in a variety of foods is important to guarantee food quality and safety. Recently, biopreservation has become a topic of interest [1]. This technique is used as an alternative to chemical additives for increasing shelf-life storage and enhancing safety of food by using natural microflora and their antimicrobial products [2]. Lactic acid bacteria are believed to be safe because they have been long established as the normal flora in fermented food; thus they have great potential for use in biopreservation. The preserving effects of lactic acid bacteria are due to the production of antimicrobial agents such as organic acids, hydrogen peroxide and bacteriocin or related substances [3,4].

## MATERIAL AND METHODS

### Isolation of Microbes from Food Sample

#### Lactobacillus selection Agar

Sr.No	Compound	Amount for			
		100ml	250 ml	500 ml	1000 ml
1	Pancreatic Digest of Casein	1.0g	2.5 g	5.0g	10.0g
2	Sodium Acetate Hydrate	2.5 g	6.25g	12.5g	25.0g
3	Yeast Extract	0.5g	1.25 g	2.5 g	5.0 g
4	Acetic Acid	0.13 ml	0.33 ml	0.65ml	1.3 ml
5	Potassium Dihydrogen phosphate	0.6 g	1.5 g	3.0g	6.0 g
6	Ammonium citrate	0.2 g	0.5 g	1.0 g	2.0 g
7	Glucose	2.0 g	5.0 g	10.0 g	20.0 g
8	Magnesium Sulfate	58.0 mg	0.14 g	0.28 g	0.575 g
9	Manganese Sulfate	12.0 mg	30.0 mg	60.0 mg	0.12 g
10	Ferrous Sulfate	3.4 mg	8.5 mg	17.0 mg	34.0 mg
11	Polysorbate 80	0.1 g	0.25 g	0.5 g	1.0 g
12	Agar	1.5 mg	3.75 g	7.5 g	15.0 g
pH 5.5 +/- 0.2					

### Isolation of Pure Culture

- Three sets of Lactobacillus selection agar plate of desired medium for each of the samples to

be tested were prepared and labeled according to their dilutions ( $10^{-2}$ ,  $10^{-3}$ ,  $10^{-4}$ ).



- 100 mg of each sample and 900 ul of sterile water was added to create the 10<sup>-1</sup>, 10<sup>-2</sup>, 10<sup>-3</sup>, 10<sup>-4</sup> dilutions at different concentration.
- Aseptically 100ul of different dilutions were spread in the respective plate.
- All plates were incubated in an inverted position for 24 to 48 hours at 37°C.
- Pure distinct culture colonies were picked and streaked into new agar plate and incubated further in an inverted position for 24 to 48 hours at 37°C.

### Gram Staining

Microbial culture were heat- fixed on the slide and stained for 1 minute with crystal violet (2% Crystal violet, 0.8% Ammonium Oxalate in 50% ethanol) staining reagent. Slides were washed with water and flooded with the mordant (Gram's iodine, 3% Iodine/Iodide Mixture in water). After 1 minute. Slides were washed with water and treated with decolorizing agent (95% ethanol). After decolorization slides were counterstained with safranin (0.25% in ethanol) for 30 seconds to 1 minute. Slides were then washed with water until no color appears in the effluent and then blot dry with absorbent paper. Slides were then observed under oil immersion using a Brightfield microscope (100X) and images were captured using Nikon Optiphot microscope equipped with Amscope MU1000 Camera.

### DNA Sequencing and Phylogenetic Analysis Service

#### DNA Isolation

1. Centrifuge 1 ml of the overnight grown culture at 8000 rpm for 5 min ,or until a compact pellet forms . Discard the supernatant .
2. Resuspend pellet in 567 ul TE buffer by repeated pipetting . Add 10 ul Lysozyme (10mg/ml) and incubate for 30 mins at 37°C.
3. Add 30 ul 10% SDS and 5 ul of RNase (10 mg/ml ). Mix thoroughly and incubate 1 hr at 37°C .
4. Now add 3ul proteinase K (10mg/ml) and mix thoroughly and incubate 1 hr at 37°C.
5. Add an equal volume of phenol/chloroform/isoamyl alcohol, extract thoroughly , and centrifuge at 8000rpm for 5 min.
6. Transfer the supernatant to a fresh tube . Repeat the step if necessary.
7. Add 70ul of 3M Sodium Acetate and add 1.2 ml of chilled ethanol to precipitate the nucleic acids . Shake the tube back and forth until a stringy white DNA precipitate becomes clearly visible .
8. Centrifuge at 8000rpm for 5 min to pellet down the precipitated DNA.
9. Wash the DNA with 70% ethanol and centrifuge at 8000rpm for 5 min at room temperature to repellet it. Repeat this step.
10. Carefully remove the supernatant and briefly air dry the pellet in laminar flow hood.
11. Redissolve the pellet in 50-200 ul nuclease free water.

### PCR Conditions

Reaction Mixture (50ul)		Cycling Conditions	
Template DNA	100 mg	Initial Denaturation	2 minuts at 95°C
Forward Primer	0.3 uM	Denaturation	30 seconds at 95°C
Reverse Primer	0.3 uM	Annealing	30 seconds at 52°C
Master Mix	25 ul	Extension	2 minutes at 72°C
Nuclease Free Water	Valume makeup 50ul	Final Extension	15 minutes at 72°C

35 Cycles

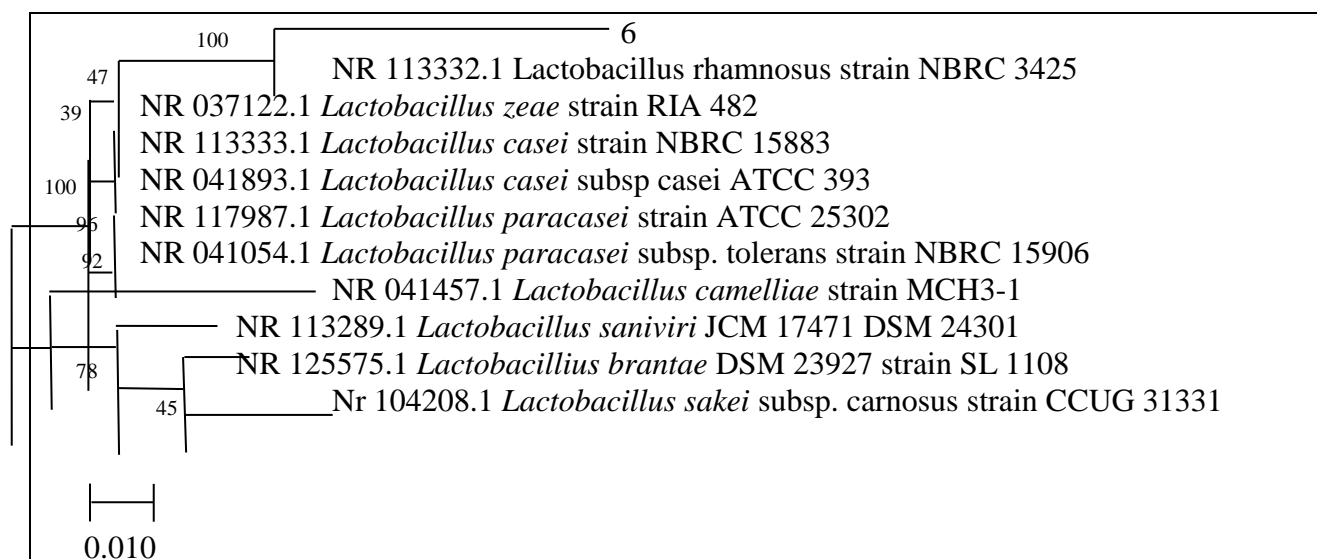
### Primer Details :

No.	Oligo Name	Sequence (5'-3')	Tm(°C)	CG -Content
1	27F	AGAGTTTGATCMTGGCTCAG	56.3	47.5%
2	1492R	CGGTTACCTTGTTACGACTT	55.3	45%

**Primer Details (For Sequencing):**

No.	Oligo Name	Sequence (5'-3')	Tm(°C)	GC -Content
1	785F	GGATTAGATACCCTGGTA	56.3	47.5%
2	907R	CCGTC AATTCMTTTRAGTTT	55.3	45%

Sample ID	6						
Sequence in FASTA Format							
AGTTGTATTGGTTCGTATCTGTTACTAGGGAACCGCTTGAATCTTGATTAAATTTTGAACGAGTGGCGGACGGGTGAGTACACGTGGGTAACCTGCCCTTAAGTGGGGGATAACATTTGGAACAGATGCTAATACCGCATAAAATCCAAGAACCGCATGGCTCTGGCTGAAAGATGGCGTAAGCTATCGCTTTTGGATGGACCCGCGCGTATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCAATGATACGTAGCCGAACGTGAGAGGTTGATCGGCCACATTGGGACTGAGACACGCCAAACTCCTACGGGAGGCAGCAGTAGGGAATCTTCCACAATGGACGCAAGTCTGATGGAGCAACGCCCGTGGAGTGAAGAAGGCTTTCGGGTCGTA AAACTCTGTTGTTGGAGAAGAATGGTCGGCAGAGTA ACTGTTGTCGGCGTGACGGTATCCAACCAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGTAATACGTAGGTGGCAAGCGGTTATCCGGA							
Alignment Table							
s.no	Description	Max score	Total score	Query cover	E value	Ident	Accession
1	<i>Lactobacillus rhamnosus</i> strain NBRC 3425	900	900	93%	0	99.40%	NR_113332.1
2	<i>Lactobacillus zae</i> strain RIA 482	867	867	93%	0	98.19%	NR_037122.1
3	<i>Lactobacillus casei</i> strain NBRC 15883	854	854	89%	0	99.16%	NR_113333.1
4	<i>Lactobacillus paracasei</i> strain ATCC25302	854	854	89%	0	99.16%	NR_117987.1
5	<i>Lactobacillus casei</i> subsp. casei ATCC 393	854	854	89%	0	99.16%	NR_041893.1
6	<i>Lactobacillus paracasai</i> subsp. tolerans strain NBRC 15906	848	848	89%	0	98.95%	NR_041054.1
7	<i>Lactobacillus saniviri</i> JCM 17471 DSM 24301	743	743	91%	0	94.25%	NR_113289.1
8	<i>Lactobacillus camelliae</i> strain MCH3-1	732	732	89%	0	94.75%	NR_041457.1
9	<i>Lactobacillus brantae</i> DSM 23927 strain SL1108	721	721	90%	0	93.96%	NR_125575.1
10	<i>Lactobacillus sakei</i> subsp. carnosus strain CCUG 31331	610	610	90%	0	89.83%	NR_104208.1
Tree File							
<p>The evolutionary history was inferred using the Neighbor- Joining method [1]. The optimal tree with the sum of branch length= 0.20964036 is shown. The percentage of replicate trees in which the associated taxa clustered together in the bootstrap test (500 replicates) are shown next to the branches[2]. The tree is drawn to scale, with branch lengths in the same units as those of the evolutionary distances used to infer the phylogenetic tree. The evolutionary distances were computed using the Maximum Composite Likelihood method [3] and are in the units of the number of base substitutions per site. This analysis involved 11 nucleotide sequences. All ambiguous positions were removed for each sequence pair (pairwise deletion option). there were a total of 1578 positions in the final dataset. Evolutionary analyses were conducted in MEGA X [4].</p>							



Distance Matrix

Distance Matrix

The number of base substitutions per site from between sequences are shown. Standard error estimate(s) are shown above the diagonal. Analyses were conducted using the Maximum Composite likelihood model [3]. This analysis involved 11 nucleotide sequences. All ambiguous positions were removed for each sequences pair (pairwise deletion option). There were a total of 1578 positions in the final dataset. Evolutionary analyses were conducted in MEGA X [4].

		1	2	3	4	5	6	7	8	9	10	11
1	6		0.0093	0.0134	0.0150	0.0145	0.0154	0.0153	0.0235	0.0288	0.0282	0.0409
2	<i>Lactobacillus rhamnosus</i> strain NBRC 3425	0.0318		0.0028	0.0034	0.0035	0.0035	0.0035	0.0103	0.0126	0.0104	0.0156
3	<i>Lactobacillus zeae</i> strain RIA 482	0.0508	0.0088		0.0011	0.0024	0.0013	0.0026	0.0102	0.0132	0.0102	0.0159
4	<i>Lactobacillus casei</i> strain NBRC 15883	0.0575	0.0115	0.0020		0.0023	0.0000	0.0025	0.0104	0.0133	0.0104	0.0159
5	<i>Lactobacillus paracasei</i> strain ATCC 25302	0.0555	0.0113	0.0070	0.0070		0.0025	0.0006	0.0105	0.0144	0.0101	0.0158
6	<i>Lactobacillus casei</i> subsp. <i>casei</i> ATCC 393	0.0595	0.0122	0.0027	0.0000	0.0077		0.0026	0.0105	0.0133	0.0104	0.0160
7	<i>Lactobacillus paracasei</i> subsp. <i>tolerans</i> strain NBRC 15906	0.0597	0.0122	0.0081	0.0081	0.0007	0.0088		0.0104	0.0142	0.0100	0.0158
8	<i>Lactobacillus saniviri</i> JCM 17471 DAM	0.0978	0.0469	0.0467	0.0476	0.0480	0.0484	0.0477		0.0136	0.0059	0.0155



	24301											
9	<i>Lactobacillus camelliae</i> strain MCH 3-1	0.1230	0.0582	0.0602	0.0614	0.0663	0.0617	0.0661	0.0653		0.0126	0.0191
10	<i>Lactobacillus brantae</i> DSM 23927 strain SL1108	0.1204	0.0470	0.0468	0.0477	0.0457	0.0480	0.0455	0.0254	0.0602		0.0125
11	<i>Lactobacillus sakei</i> subsp. <i>carnosus</i> strain CCUG 31331	0.1771	0.0736	0.0753	0.0763	0.0751	0.0767	0.0755	0.0747	0.0894	0.0581	

Inference: *Lactobacillus rhamnosus* sp.

## RESULT AND DISCUSSION

In the last few decades, tremendous interest has swelled in the potential use of bacteriocins from lactic Acid Bacteria (LAB). The bacteriocins produced by this group of bacteria are considered potent bio-preservative agents and their application in food is currently the subject of extensive research.

The present investigation highlights the isolation and characterization of bacteriocin producing *Lactobacillus* sp. isolated from Dosa (appam) batter, curd, sauces and cheese. Five Isolated bacteriocinogenic *Lactobacillus* sp. were characterized and identified on the basis of their morphological, physiological and biochemical characteristics out of five, two were identified as *L. plantarum* and coded as p1 and P2 due to their different potential in bacteriocin activity and other were identified as *L. casai*, *L. brevis*, *L. fermentum*.

Antimicrobial activity of the bacteriocins produced by the *Lactobacillus* sp. in this study was not due to hydrogen peroxide or acidity, as activity was not lost after treatment with catalase or peroxidase or adjustment of pH to 7.0.

Production of bacteriocin was studied in both aerobic and anaerobic conditions. Anaerobic condition was found suitable for maximum production of bacteriocin by all isolates whereas the aerobic condition did not support growth of *Lactobacillus* sp. (as they are anaerobic or microaerophilic bacteria) as well as the production of bacteriocin.

Bacteriocin production by the test isolates displayed secondary metabolic kinetics because all bacteriocin were produced during the pre-and early exponential growth phases, reached a maximum level at late stationary phase. Some reports indicate that bacteriocins are produced throughout the experimental growth phase and not solely during late logarithmic or

early stationary phase (Joerger and Klaenhammer, 1986 Piard et al, 1990).

Optimization of bacteriocin production process was carried out by taking different parameters such as different carbon and nitrogen sources, pH, Temperature, Salt concentration and optimized parameter was determined by Arbitrary unit.

Supplementation and/or replacement of carbon and nitrogen sources demonstrated that larger quantities of bacteriocin could be produced by addition of glucose (2.0%) while addition of other carbon sources had no effect or adverse effect on production and in case of nitrogen source maximum production was achieved by addition of Tryptone, yeast extract and meat extract together in the medium. Maximal activity in composed medium was achieved at initial pH ranging from 6-8 while extreme alkaline and acidic pH did not support the bacteriocin production and optimized temperature was 30.c.

In the optimized conditions, the bacteriocin was produced at its maximum and the purified bacteriocin could be directly used as bio-preservative. Optimization of bacteriocin production will help to reduce their production cost and it could be available commercially (comparatively at low cost) to reduce or replace the addition of chemical preservatives.

All bacteriocin gave same results after treatment with enzymes. Complete inactivation of antimicrobial activity from all *Lactobacillus* sp. was observed after treatment of bacteriocin with proteinase k, trypsin and pepsin confirming its proteinaceous nature. Loss in antimicrobial activity by treatment with  $\alpha$ -amylase suggesting that bacteriocin could be glycosylated. Lipase caused only a slight reduction of bacteriocin activity, indicating that besides the proteinaceous subunit, some lipid components may also involve in antibacterial activity.



SDS PAGE of bacteriocins showed that the molecular weight of bacteriocin from *L. plantarum* P1 and P2 were approximately same and other have comparatively high molecular weight. Complete inactivation by proteinases and some loss of bacteriocin activity with lipase and amylase showed that these molecular weight of protein contribute major part in the total molecular weight of bacteriocins with some contribution of carbohydrate and lipid moieties.

During the purification procedures, each step resulted in considerable loss of protein concentration while specific activity increased. At 60% saturation with ammonium sulphate highest increase in activity was observed for *L. plantarum* P1, *L. casai*, *L. fermentum*. While in the case of *L. brevis* and *L. plantarum* P2 it was achieved at 80% saturation. This agreed with the findings of Ivanova et al. (2000). The increase in activity could be due to release of active monomers from bacteriocin complexes. During salt precipitation various amount of the protein was fractionated as a surface pellicle, this might be due to the association of bacteriocin molecules with the hydrophobic globular micelle like structure in the supernatant fluid. Similar observations have also been recorded for lactocin S and lactacin F (Muriana and klaenhammer, 1991) The above fractions were subjected to ion exchange chromatography and production of active fraction of bacteriocin was achieved.

Thermal stability at 121°C for 20 min was observed in case of bacteriocin produced by and it is important, if this bacteriocin is to be used as a food preservative, because many procedures of food preparation involve a heating step. The phenomenon of heat stability of LAB bacteriocins have been reported earlier for plantaricin A (Daeschel et al., 1990), Plantaricin C19 (Audisio, 1999), Plantaricin S (Jimenez-Diaz et al. 1990), Plantaricin 149 (kato et al., 1994), Plantaricin SA6 (Ralph et al., 1995), Plantaricin 423 (Van-Reenen, 1998), pentocin TV35b (Okkers et al., 1999), lactocin RN78 (Mojgani and Amirinia, 2007) and a bacteriocin produced by *L. brevis* 0G1 (Ogunbanwo et al., 2003). The findings of this report are also in agreement with the above mentioned reports as we observed heat stability of *L. plantarum* P2 bacteriocin. The retention of activity by this bacteriocin after heating at 121°C for 60 min, place it within heat stable low molecular weight group of bacteriocins. This quality of the bacteriocin makes it superior in processed food stuffs where high heat is applied. While other bacteriocins were not heat stable. Andersson (1986)

also reported loss of activity after heat treatment at 121°C for 15 min.

The activity of bacteriocin elaborated by the test isolates was also pH dependent. The bacteriocins produced by *L. brevis* and *L. plantarum* P2 were stable at acidic and alkaline pH as well as in high salt concentrations which make them an attractive applicant in food supplied i.e. they can be used in acidic foods like pickle, yogurt etc. while other showed stability only at acidic pH between 4-6. This was also shown by Reddy et. al., 1984; Abdel-Bar et. al., 1987 in two bacteriocins, namely bulgarican and lactobulgarican, isolated from *L. bulgaricus*, have, the highest activity and stability at pH 2.2 and 4.0 respectively, against a range of pathogenic and spoilage bacteria.

Increased antibacterial activity in the bacteriocin produced by *L. plantarum* P2 and *L. brevis* was observed in acidic pH specifically at pH 5. This may be due to the increase in net charge of bacteriocins at low pH might facilitate translocation of bacteriocin molecules through the cell wall. The solubility of bacteriocins may also increase at lower pH, facilitating diffusion of bacteriocin molecules.

## CONCLUSION

The highly promising results of these studies underline the important role that functional, bacteriocinogenic *Lactobacillus* sp. may play in the food industry as starter cultures, co-cultures, or bioprotective cultures, to improve food quality and safety.

The characterization study of Bacteriocin from test isolates to exploit their potential make applicable them as suitable candidate for future application as a safe and efficacious biological preservative. The peculiar broad spectrum antibacterial characteristic, technological properties and especially heat and pH stability and salt tolerance capacity of *L. plantarum*, can positively has impact on their use as biopreservative, with a view to improving the hygiene and safety of the food products especially processed foods. However the pH stability and salt tolerance capacity of bacteriocin produced by *L. brevis* make it an attractive applicant in food supplies i.e. it can be used in acidic foods like pickle. The narrow-spectrum bacteriocins produced by *L. fermentum* could be used more specifically to selectively inhibit certain high-risk bacteria in foods without affecting harmless microbiota.

Bacteriocin producing lactobacilli with great potential could be directly used as starter culture or the concentrate from of these bacteriocins could also be



used as biopreservative in the food industry and it can help to reduce the addition of chemical preservatives as well as the intensity of heat treatments, resulting in foods which are more naturally preserved and richer in organoleptic and nutritional properties. This can be an alternative to satisfy the increasing consumers demands for safe, fresh-tasting, ready-to-eat, minimally-processed foods and also to develop 'novel' food products (e.g. less acidic, or with a lower salt content).

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# THE APPLICABILITY OF FINITE HOMOGENEOUS MARKOV PROCESSES IN THE STUDY OF CONSUMER LOYALTY

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## ABSTRACT

*Markov Processes are sequential events that are related to each other stochastically. Such events, also known as states, may be such that the probability of an event occurring depends only on the previous event and not on any event prior to that. This is known as the memoryless property of Markov Processes. Certain dynamic market conditions especially with respect to the Fast-Moving Consumer Goods Sector, the Telecommunications Sector may enable the use of finite and time-homogeneous Markov Processes to study the brand switching tendency of the consumer, and thus predict consumer loyalty. In this conceptual paper, we shall study how to predict brand switching tendencies using finite, time-homogeneous Markov Processes.*

**KEYWORDS:** *Markov Process, Brand Switching, Time-Homogeneous, Consumer Loyalty, Transition Matrix*

## INTRODUCTION

Let us consider a stochastic model listing sequential events such that the probability of an event depends on the previous event and not the ones before that. Such a memory-less stochastic model is called the Markov Chain or Markov Process, named after the Russian mathematician, Andrey Markov. Used to model changing systems, Markov Processes can be utilized to make effective predictions in a dynamic economic environment regarding brand switching tendencies and thus consumer loyalty towards a brand. (Markov chain, 2021)

### Objective

To study the concept of finite time-homogeneous Markov Process and its applicability in predicting consumer loyalty

## RESEARCH METHODOLOGY

The researcher studies conceptual readings within relevant literature and draws conclusions therein. The study illustrates using fictitious examples emphasizing mainly on the concept of how finite time-homogeneous Markov Processes could be used to predict brand loyalty.

## LITERATURE REVIEW: CONCEPTUAL READINGS ON MARKOV PROCESSES

Let  $\{X(t_n): n = 1, 2, \dots\}$  be a set of Random Variables where  $X(t)$  stands for observation at time  $t$  defines a Stochastic Process, where the number of states,  $n$  may be finite. (Sharma, 2005) Markov Process is a system consisting of a set of objects and a set of states such that at any given time, an object must be in a state and the probability that an object moves between two states at any given time depends only on the two states. (Bronson &



Naadimuthu, 2010) A Markov Process, is thus a stochastic process that has the property that the occurrence of a state depends only on the preceding state. Any Markov Process can be viewed as a series of n experiments, with n individual outcomes (also called states) and P(i<sup>th</sup> experiment has a particular outcome) is a function of the (i-1)<sup>th</sup> experiment. (Sharma, 2005)

The Markovian Property (memory-lessness) is thus: if  $t_0 < t_1 < \dots < t_n$  are n successive time periods, then  $P[X(t_n) = x_n / X(t_{n-1})=x_{n-1}, X(t_{n-2})=x_{n-2}, \dots, X(t_0)=x_0] = P[X(t_n) = x_n / X(t_{n-1})=x_{n-1}] \square X(t_i)$  (Sharma, 2005), (Markov Chains) The number of time periods, past the moment when the Markov Process begins correspond to the stages (states) of the Markov Process. If the number of the states of the Markov Process is countable, it is called a Markov Chain. A Markov Process with a finite number of states is called a Finite Markov Chain. (Bronson & Naadimuthu, 2010)

The probability of moving from one state to another or remaining in the same state is called the Transition Probability. The transition probability of moving from state i to j could be denoted as  $p_{ij} = P[X(t_j) = x_j / X(t_i)=x_i]$  (Sharma, 2005)

The Matrix  $P = (p_{ij})_{n \times n}$  is known as the (One-step) Transition Matrix, which is stochastic as each row adds to 1 or  $\sum_{j=1}^n p_{ij} = \sum_{j=1}^n P[X(t_j) = x_j / X(t_i) = x_i] = 1$  (Bronson & Naadimuthu, 2010)

Further, if the Transition Probabilities are independent of the time t or  $\square$  a constant  $p_{ij} = P[X(t_j) = x_j / X(t_i)=x_i] \square t$ , then the Markov Chain is known to be homogeneous. (Klappenecker, 2018) A Markov Process of Order n is such that the probability of an outcome depends on the nth previous outcome. E.g.: In a second order Markov Process, the probability of an outcome depends on the two previous outcomes. (Sharma, 2005) While studying the brand switching cases and thus, consumer loyalty towards only 1<sup>st</sup> order Markov Processes that are finite and homogeneous. (Sharma, 2005)

(Suppose  $V =$  a non-zero vector and  $A$  is the matrix representation of the linear transformation of a vector space over a field into itself and  $AV = \lambda V$  for some scalar  $\lambda$ , then  $\lambda$  is the Eigen Value associated with  $A$  &  $V$ . (Eigen Values and Eigen Vectors)). If  $\lambda$  is the Eigen Value of  $P$ , a stochastic matrix, then  $|\lambda| \leq 1$ . Also,  $\square$  a vector  $X \neq O_{1 \times n}$  such that  $XP = X$  and  $X$  is the Fixed Vector (or stationary vector) of  $P$ ,  $P$  being regular. (Bronson & Naadimuthu, 2010) The positive integral power of a Stochastic Matrix is also Stochastic of  $P^n$  is stochastic. (Bronson & Naadimuthu, 2010) An example is shown in Figure 1.

In an Ergodic Markov Chain, it is possible to pass from one state to another in a finite number of steps. A regular Markov Chain is a special type of the ergodic Markov Chain. (Sharma, 2005) A Stochastic Matrix is Regular if one of its positive integral powers contains only positive values. (Bronson & Naadimuthu, 2010)

Let  $t_i = (t_{i1}, t_{i2}, \dots, t_{in})_{1 \times n}$  represent the State of a System at time period i. Then,  $t_0$  will represent the initial state and  $t_1 = t_0 P$

$$t_2 = t_1 P = t_0 P^2$$

.

.

$$t_n = t_{n-1}P = t_0 P^n \text{ (Bronson \& Naadimuthu, 2010)}$$

In the set of equations above, we note that:  $t_{n+1} = t_n P$ . Thus,  $\lim_{n \rightarrow \infty} t_{n+1} = \lim_{n \rightarrow \infty} t_n P = tP$  where  $t$  is the Steady State Vector, representing Steady State Equilibrium of  $P$

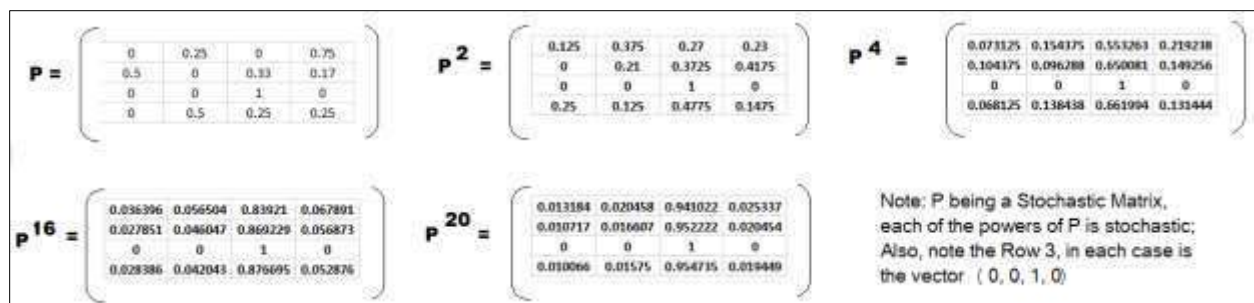


Figure 1: Stochastic Matrix and its powers



### Literature Review: Related Studies that throw light on the estimation of the Transition Matrix

A study of relevant literature shall enable an exploration as to how we may be able to estimate accurately the transition probabilities from available consumer and marketing data.

Written in 1969, this paper (Armstrong & Farley, 1969) throws light on the technique of estimating transition probabilities and the goodness of fit of the Markov Model for forecasting market shares. The earliest methods of estimating the transition probabilities are considering runs of panel data, as shown in Figure 2 (for Brands A, B, C)

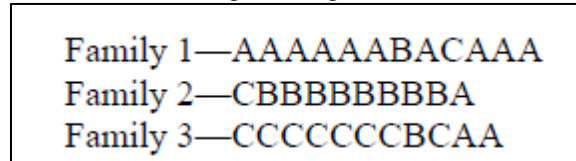


Figure 2: Source: (Armstrong & Farley, 1969)

Other mentioned approaches to estimation transition probabilities include the analysis of sets of summary statistics (of a family’s purchases), categorize groups of purchasers into “loyalty classes” and asking questions like “given the purchase of brand A, which brand is likely to be purchased next?” (Armstrong & Farley, 1969)

*Discussion: Whatever the method, it is imperative to check the stability of the transition probabilities over time, impact of extraneous variables caused by marketing activities and whether the studied sample is representative of the population. It has been seen that if the period of study is short enough that the estimated transition probabilities are actually approximations of reality, then the Markov Model for forecasting market shares is fairly successful.*

In their study, Awogbemi, Oloda, & Osama, 2012 computed “Brand Insistence Rates” from a survey of 360 customers who gave their preferences for three types of soft drinks (F, M, MD) and computed the transition probabilities after the construction of a transition diagram as shown in Figure 3 below. (Awogbemi, Oloda, & Osama, 2012)

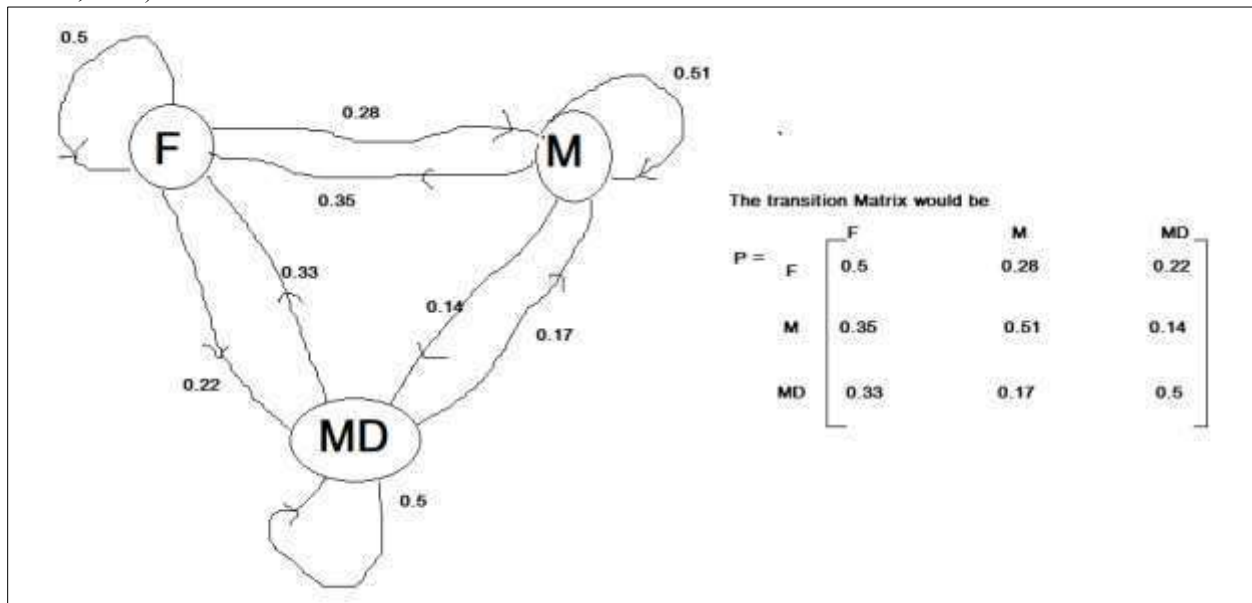


Figure 3: (Source: (Awogbemi, Oloda, & Osama, 2012))

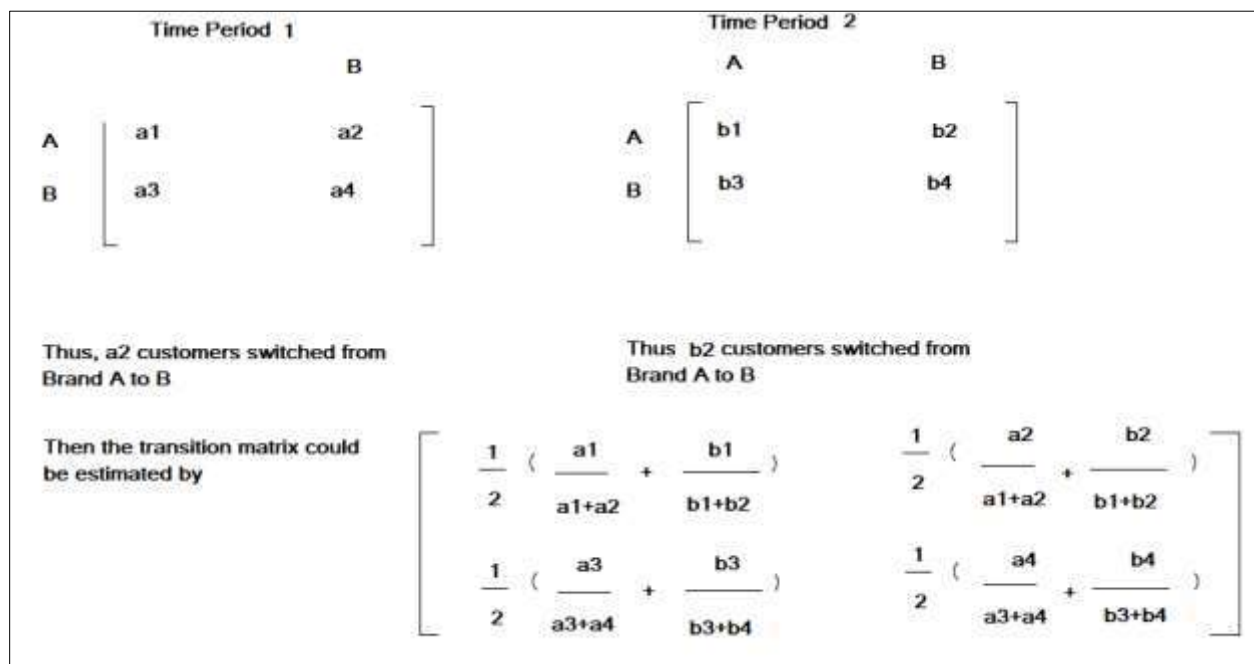
Bairagi & Kakaty, 2016, in their paper assessed the preferences of 1010 respondent households towards 6 beverages over two time periods and computed two transition matrices (one for each time period) and thereafter, computed the final transition matrix as the mean of the two matrices. (Bairagi & Kakaty, 2016)



*Discussion:*

- Two transition matrices show that the quality of homogeneity has been compromised in the Markov Process
- However, if the said method is extrapolated to moving averages over a sufficient number of time periods, we may be able to improve upon the homogeneity of the said Markov Process
- We could check the correlation between the corresponding transition probabilities

Chan, 2015 in his paper insisted that transition probabilities of homogeneous Markov Chains are computed using historical data. He took two time periods and in each time period, he computed a matrix showing the actual number of customers and the movement of customers two competing brands. He then estimated  $p_{ij}$  to be the average of the corresponding transition probabilities. The same is shown in the Figure 4. (Chan, MARKET SHARE MODELLING AND FORECASTING USING MARKOV CHAINS AND ALTERNATIVE MODELS, 2015)



**Figure 4: A depiction of the estimation of transition probabilities, referencing (Chan, MARKET SHARE MODELLING AND FORECASTING USING MARKOV CHAINS AND ALTERNATIVE MODELS, 2015)**

*Discussion: It may be noted that here too, the quality of homogeneity is likely to be compromised.*

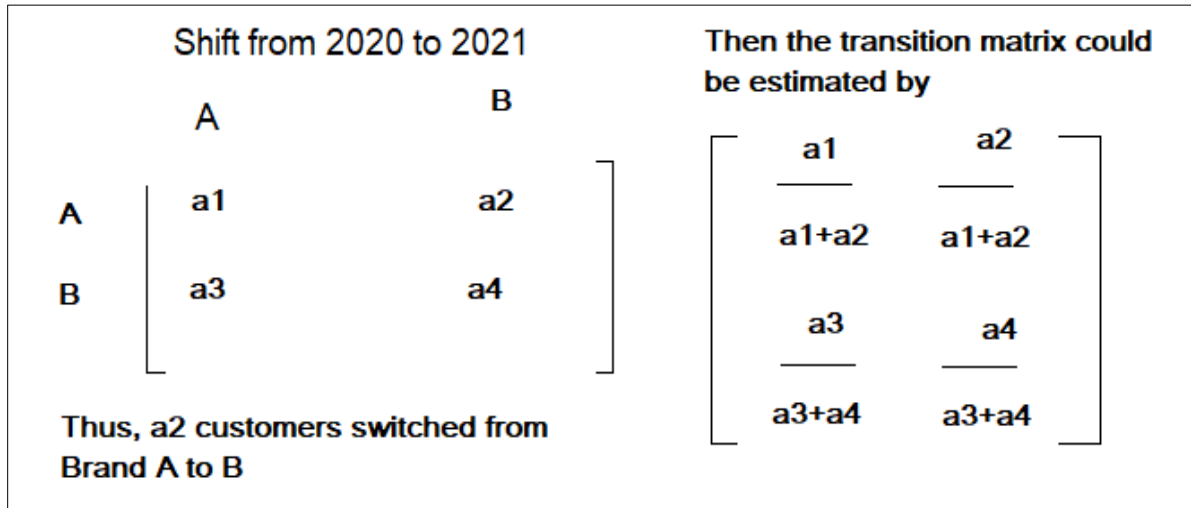
DELLAROCAS, ZHANG, & AWAD, 2007 established a model that proceeded to forecast the success of a motion picture and proposed a family of diffusion models, which is a variant of the Bass Diffusion Model (Bass Diffusion Model). The Internet and Internet of Things have ensured that much data is available from user generated online content (UGC) and thus the measurement of consumer Word of Mouth (WOM) communication is eased. In their research, they have mentioned that UGC typically contributes towards the measurement of volume, valence and dispersion with respect to consumer-postings. Volume of UGC implies that more people speak about a product, Valence measures consumer attitude towards a product (positive versus negative) and Dispersion measures the spread of product information across communities. (DELLAROCAS, ZHANG, & AWAD, 2007)

*Discussion: In order to estimate the Transition Matrix, could we understand that  $p_{ij}$  is a function of volume, valence and dispersion with respect to consumer postings?*

Jones, 2005 says that assuming a first-order Markov Process may be restrictive if the measure under consideration (credit quality, in his research) responds to economic fundamentals. However, the usage of higher order Markov Processes requires complexity in data collection and processing. (Jones, 2005)



As per research of Jones, 2005, let us again consider the example mentioned in Figure 4. Jones, 2005, showed simplistically as to how to estimate the transition matrix using only count data between two time periods, as in Figure 5.



**Figure 5: The creation of a Transition Matrix, when individual transitions are observed over a time period; based on (Jones, 2005)**

Jones, 2005 further suggested that if the time series of observations is sufficiently long, the transition matrix could be estimated by quadratic programming methods. A simplistic version is depicted in Figure 6, based on the example in Figure 5.

$$\begin{aligned}
 y_2(2021) &= y_1(2020) p_{12} + y_2(2020) p_{22} + u_2(2021) \\
 y_2(2022) &= y_1(2021) p_{12} + y_2(2021) p_{22} + u_2(2022) \\
 y_2(2023) &= y_1(2022) p_{12} + y_2(2022) p_{22} + u_2(2023)
 \end{aligned}$$

**Figure 6: Estimating the Transition Matrix from aggregate data, based on (Jones, 2005)**

Umoh, Awa, & Ebitu, 2013 in their research studied the brand switching tendencies of households regarding 5 brands of toothpaste. To estimate the transition probabilities, they studied the purchase sequence of households. (Umoh, Awa, & Ebitu, 2013)

### FINDINGS AND CONCLUSIONS

- The Markovian Property (memory-lessness) is defined by: if  $t_0 < t_1 < \dots < t_n$  are  $n$  successive time periods, then  $P[X(t_n) = x_n / X(t_{n-1}) = x_{n-1}, X(t_{n-2}) = x_{n-2}, \dots, X(t_0) = x_0] = P[X(t_n) = x_n / X(t_{n-1}) = x_{n-1}] \square X(t_i)$
- The Transition Matrix, giving the probability of moving from 1 state to another, is given by  $P = (p_{ij})_{n \times n}$  where  $p_{ij} = P[X(t_j) = x_j / X(t_i) = x_i]$



- If the Transition Probabilities are independent of the time  $t$  or  $\square$  a constant  $p_{ij} = P[X(t_j) = x_j / X(t_i) = x_i] \square t$ , then the Markov Chain is known to be homogeneous
- While studying the brand switching cases and thus, consumer loyalty towards only 1<sup>st</sup> order Markov Processes that are finite and homogeneous
- In an Ergodic Markov Chain, it is possible to pass from one state to another in a finite number of steps
- A Stochastic Matrix is Regular if one of its positive integral powers contains only positive values
- $\square$  a vector  $X \neq O_{1 \times n}$  such that  $XP = X$  and  $X$  is the Fixed Vector (or stationary vector) of  $P$ ,  $P$  being regular and  $X$  would be the fixed vector of  $P$
- Markov Chain Analysis helps find the probability that a consumer will continue to use the brand he uses or the consumer will switch to a distant brand. It helps, thus predict the brand-switching tendency of a set of consumers and thus, forecast brand loyalty. (Pai, 2013), (Sharma, 2005)

We could thus say that in order to predict brand switching behaviour, the following assumptions are to be made:

- The Markov Chain is finite or the given system has a finite number of states
- None of the states should be absorbing or the Transition Matrix should be regular and Stochastic
- The Markov Process is a first order process
- The Markov Chain should be time-homogeneous or stationary or the transition probabilities should be constant over time.
- Uniform time periods: The change of one state to another happens only once during a time period and the time periods are identical in length (Vohra, 2017)

A generic example (Source: Researcher Contribution)

Suppose we have a set of  $n$  brands (of a certain product), say  $A_1, A_2, \dots, A_n$ , whose market shares, as on 2020 are given by the vector  $A_{20} = (a_{20-1}, a_{20-2}, \dots, a_{20-n})_{1 \times n}$  and the Transition Matrix governing the brand switching tendency is given by:  $P = (p_{ij})_{n \times n}$ , (assuming that during the year there is no incident of brand switching), then the market shares of the brands in the year 2021 would be given by the vector  $A_{21} = (a_{21-1}, a_{21-2}, \dots, a_{21-n})_{1 \times n}$ , where  $A_{21} = A_{20}P$

Further, if “many years henceforth” (depicting steady state equilibrium), the market shares of the said brand are given  $A_{1 \times n} = (a_1, a_2, \dots, a_n)_{1 \times n}$ , we could determine  $A$  by the system of linear equations generated by the equation  $AP = A$  and also considering the fact that  $A_{1 \times n}$  would be a stochastic vector. It is rather intriguing to note that the Steady State Vector predicting the brands’ long-term market share is entirely dependent on the transition matrix  $P$ . Also, if we were to study the brand switching tendency of consumers of a product using the Markov Analysis, we would need to know the initial state vector or the market shares of the brand and the transition matrix  $P$ .

The estimation of transition probabilities can be done in the following ways for the finite homogeneous Markov Process:

- By the study of purchase sequences of brands by a set of respondents and the creation of a Runs Vector; E.g.:  $\{A, A, A, B, A, C, A\}$  for brands  $A, B, C$
- Surveying respondents who give their preferences over a time sequence. Thereafter the estimated transition probabilities could be aggregated from proportions of brand switching and brand choices in different time intervals or could also be computed using a measure computed from the actual counts of respondents’ choices
- In each case, one has to note that the transition probabilities should not vary with time
- In case different transition matrices are computed over different equally partitioned periods within the time schedule, it would be intriguing to check the correlation between the corresponding transition probabilities

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# A STUDY ON CUSTOMER SATISFACTION TOWARDS HYPERMARKET WITH SPECIAL REFERENCE TO DMART

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## ABSTRACT

*The customer satisfaction plays an important role for development of their business. Retailers have recognized this trend and are of the view that customer satisfaction plays a role in the success of business strategies. Therefore, it has become important for grocery retail stores to try and manage customer satisfaction.*

*The purpose of this study is to find out overall satisfaction towards Dmart. Some people are satisfied with price, some people about product variety etc... therefore, preference of the customer changes from one person to another. Research was done through questionnaire and also discuss with some customers in college campus who are customers of DMart This paper was thus developed to investigate the satisfaction levels of customers in dmart. Data was collected from dmart customers. The study examined the importance of overall dimensions and specific elements of customer satisfaction towards the measurement of satisfaction levels. This research is conducted on a sample size, so it might be possible that the information given by such respondents may not match with the replay of total customers available in the DMart that time. DMart should include more branded products. Therefore, it will attract the brand choosy people to come into DMart.*

**KEYWORDS:** Customer, satisfaction, price, quality

## INTRODUCTION

Marketing refers to activities a company undertakes to promote the buying or selling of a product or service. Marketing includes advertising, selling, and delivering products to consumers or other businesses. Some marketing is done by affiliates on behalf of a company. Marketing is the process of getting potential clients or customers interested in your products and services. Professionals who work in a corporation's marketing and promotion departments seek to get the attention of key potential audiences through advertising. Promotions are targeted to certain audiences and may involve celebrity endorsements, catchy phrases or slogans, memorable packaging or graphic designs and overall media exposure.

## Customer Satisfaction

Customer satisfaction (often abbreviated as CSAT) is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation.

Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals. "Customers play an important role and are essential in keeping a product or service relevant so it is in the best interest of the business to ensure customer satisfaction, and build customer loyalty. Customer satisfaction is affected by many factors which include:

- Price
- Billing system
- Location



- Parking system
- Service etc...

### STATEMENT OF THE PROBLEM

Every organization is trying to be at top position through providing better services to the customers. The company must know the customers' needs and wants and adequate steps are to be taken.

Customer satisfaction is an important factor that helps the organization to be at the top position. Without satisfying consumers no firms can exist in the market for long term. The study is focused on customer satisfaction, through this study the company will be able to know whether their customers are satisfied or not.

Therefore, the problem of study is "Are the customers of D'mart hypermarket satisfied with their services provided."

### Objective of study

- To study about preference of customer towards D'mart
- To study about availability of offers and services
- To know about customer satisfaction level

### RESEARCH METHODOLOGY

#### Data Collection

Survey Method is employed to collect the data from the respondents through structured questionnaire designed on the basis of objectives of the study. Secondary Data have been collected through various Journals, books & internet which are restricted to the conceptual framework of the paper only.

#### Sampling Design

The population has comprised of Students and Youth at the collegiate level & Employment level. A convenient sampling size of 150 respondents has been randomly selected.

#### Data Analysis

The collected data is then edited, consolidated and subjected to suitable statistical test & the data is presented in form of tables.

### Statistical Tool Used

The following statistical tools have been used in the study for the purpose of analysis:

- Simple Percentage Analysis
- Chi - Square test
- Ranking analysis

### Limitation of the study

- This research is conducted on a sample size, so it might be possible that the information given by such respondents may not match with the replay of total customers available in the DMart that time.
- The study was restricted only to the customers of DMart.

### REVIEW OF LITERATURE

**AdirGrip (2019)** - In his article the author provides a detailed study on the business model of DMart. He describes the various factors that DMart employs to ensure customer satisfaction which is the key to their success. It also explains the revenue model that DMart uses that has allowed them to surpass its competitors like Reliance, Spencers, Big Bazaar etc.

**Kirill Tšernov (2019)**- In this article the author states the importance of building good customer connections and making sure that their experience in the store is wholesome. The author in this article gives pointers as to how a retail store can ensure that their customers' experience is fruitful.

**M. Guruprasad (2018)** - The author has done a case study of a particular DMart in Karjat and Badlapur wherein he has conducted primary research and found out various factors that indicate the consumers' responses towards various aspects of the store. He concluded that customers usually came 2 times a weekend and bought household goods in bulk. He also concluded that DMart mostly faces competition only from small retail stores which lack the desire to expand their businesses.

According to **Amit & Kameshvri, (2012)**, the origin of word "retail" comes from the French "retailer", that means "it shows a first hand-transaction with the customer the retailer is a person or agent or organization who sends the products or services to the ultimate consumer Thus, the customer and the fulfilment of customer desires and needs which are the key points of retailing are the retailing focus.



## SIMPLE PERCENTAGE ANALYSIS

**Table - I Demographic Factors of the Respondents**

<i>Factors</i>	<i>Particulars</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	39	30%
	Female	92	70%
Marital Status	Married	94	78%
	Unmarried	26	22 %
Monthly Income	less than Rs.20000	73	55.7%
	Rs.20000-30000	25	19.1%
	Rs.30000-40000	19	14.5%
	More than Rs.40000	14	10.7%
Type of Family	Nuclear family	104	79.4%
	Single-parent family	6	4.6%
	Extended family	17	13%
	Others	4	3.1%

Source: Primary Data

### Chi - Square Analysis

#### Null Hypothesis (Ho)

There is no significant relationship between income of the respondents and type of the product through DMart.

#### Alternative Hypothesis (Ha)

There is significant relationship between income of the respondents and type of the product through DMart.

INCOME Skill Require	TYPE OF THE PRODUCT				Total
	Grocery	Clothes	House hold	Food items	
Less than Rs.20000	28	10	19	8	8
Rs. 20000-30000	10	3	8	2	2
Rs. 30000-40000	6	5	5	2	1
More than Rs. 40000	6	1	5	1	1
<b>Total</b>	50	19	37	13	12

### Chi-square Tests

Factor	Calculation value	Df	Table value	Remarks
Income	4.324 <sup>a</sup>	12	21.03	Accepted

It is clear from the above table that the calculated value of chi-square is more than the table value. Hence the hypothesis is accepted stating that

there is no significant relationship between income and type of product of the respondents

**RANK ANALYSIS****RANKING FACTOR INFLUENCED ON DMART PURCHASING**

FEATURES	1(6)	2(5)	3(4)	4(3)	5(2)	6(1)	TOTAL	RANK
Fashion	21 (126)	46 (230)	33 (132)	15 (45)	11 (22)	5 (5)	131 (520)	V
Quality	16 (96)	24 (120)	51 (204)	22 (66)	8 (16)	10 (10)	131 (512)	VI
Price	62 (372)	24 (120)	34 (136)	7 (21)	3 (6)	1 (1)	131 (656)	I
Offers	43 (258)	19 (95)	21 (84)	34 (102)	5 (10)	9 (9)	131 (558)	IV
Quantity	51 (306)	32 (160)	17 (68)	5 (15)	12 (24)	14 (14)	131 (587)	III
Easy availability	37 (222)	41 (205)	22 (88)	19 (57)	6 (12)	7 (7)	131 (591)	II

**INTERPRETATION**

From this ranking analysis, it is found that Price (Rank 1), which comes next followed by Easy availability (Rank 2), Quantity (Rank 3), Offers (Rank 4), Fashion (Rank 5) and Quality (Rank 6).

**INFERENCE**

Majority of the respondent's behaviour towards Price as the major factor in DMart. Quality is last in ranking.

**SUGGESTIONS**

- DMart should include more branded products. Therefore, it will attract the brand choosy people to come into DMart.
- DMart should also concentrate on hoardings advertisements; they should also show promotional offers on a regular interval basis.

**CONCLUSION**

The project was done to know the "CUSTOMER SATISFACTION AT DMART HYPERMARKET". On the basis of 130 samples of respondents, detailed analysis was made. Based on the data collected, inferences are drawn and findings and suggestions were given.

The motto of the organization is to provide quality products at reasonable price and to satisfy their customers.

From the survey it was found the wide range of products are available under one roof and the materials, service and parking facility provided by DMart hypermarket are very good. Through the findings or survey have found that DMart has emerged as a hub of shopping specially for middle class people. Therefore, most of the customers are

satisfied with the services, there are certain areas which need special attention. Managers must see to it, so the problems faced by the customer are solved.

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## **SHEIKH ABDULKASIM AND THE TASHKENT CHOLERA EPIDEMIC**

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### **ABSTRACT**

*The article is devoted to the great thinker, theologian of Central Asia at the end of the 19th century, Sheikh Abdulkassym, his role in calming the "Cholera insurrection" in Tashkent in 1892. The author studies scientific and popular attitudes towards the Cholera insurrection and the personality of Sheikh Abdulkassym.*

**KEY WORDS:** *colonial administration, general government, sharia, manifesto, clergy.*

## **Шейх Абдулкасим и Ташкентская эпидемия холеры.**

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Статья посвящена великому мыслителю, богослову Центральной Азии конца XIX века шейху Абдулкасиму, его роль в успокоении "Холерного бунта" в г. Ташкенте в 1892 году. Автор изучает научные и народные отношения к Холерному бунту и к личности шейха Абдулкасим.

Ключевые слова: колониальная администрация, генерал-губернаторства, шариат, манифест, духовенство.

Прямо в центре Ташкента рядом со зданием парламента Узбекистана находится одно из самых почитаемых народом мест — медресе Абдулкасим. Медресе это носит имя наставника суфийского ордена Накшбандия шейха Абдулкасима. Во время холерного бунта 1892 года шейх сумел предотвратить столкновения мусульманского населения города с колониальной администрацией Российской империи.

Необходимо заметить, что колониальная политика Российской империи в Центральной Азии сама по себе не была направлена против

ислама. После успешного штурма Ташкента двухтысячным корпусом генерала Михаила Черняева здесь было учреждено Туркестанское генерал-губернаторство. Его русская администрация старалась поддерживать традиционный уклад и вероисповедание коренного населения. Такой подход считался гарантией мирного сосуществования с покоренным народом. Наглядной иллюстрацией тому может служить первый манифест генерала Черняева, обращенный к жителям города. Манифест был обнародован 18 июля 1865 года, на следующий день после того, как делегация старейшин-аксакалов вручила генералу золотые ключи от двенадцати городских ворот.

Сразу после взятия Ташкента генерал Черняев созвал почетных жителей города для составления от их имени прошения на имя русского императора Александра II. Суть прошения заключалась в том, что зажиточные горожане жестоко страдали от произвола наместников Кокандского ханства и теперь добровольно просят присоединить Ташкент к Российской империи. По свидетельству автора



истории Ташкента, писателя Мухаммада Салиха Ташкенди, многие аксакалы на эту встречу не пришли. Они полагали, что город, оставленный на произвол судьбы мусульманами соседних регионов, был вынужден сдаться на милость завоевателей, действовавших хитро и безжалостно. За подобные речи шестерых аксакалов тотчас арестовали и отправили в Сибирь.[1]

Тем не менее соглашение между колониальной администрацией и городской знатью было все же достигнуто. С 1867 года Ташкент стал столицей всего Туркестанского края и впоследствии играл роль достаточно мирного и надежного тыла во время дальнейшей экспансии российских войск в Ферганскую долину, Самарканд, Бухару и Хиву.

Первое крупное выступление коренных жителей Ташкента против колониальных властей случилось только спустя 27 лет после завоевания и было связано с религиозными разногласиями, возникшими на почве санитарных мероприятий. Весной 1892 года эпидемия холеры, начавшаяся в Афганистане, распространилась на север от Амударьи и к лету достигла Ташкента. Карантинные и санитарно-эпидемиологические меры, предпринятые русскими властями Ташкента для борьбы с заболеванием, были достаточно рациональны и полностью соответствовали представлениям европейской медицины конца XIX века. Однако они пришли в явное противоречие с религиозными воззрениями мусульманской части города. По нормам шариата умерших людей положено предавать земле обязательно до захода солнца. Родственники считают важным похоронить своих близких рядом с их предками, неукоснительно соблюдая при этом все похоронные обряды.

Однако здесь традиции столкнулись с санитарной необходимостью. По распоряжению властей Ташкента русские врачи должны были подвергать тела людей, погибших от холеры, обязательному медицинскому осмотру. Но медицинского персонала в разгар эпидемии не хватало, и это приводило к задержкам похорон на 2-3 суток. Недовольство мусульман вызвало и распоряжение властей производить захоронения на специально отведенных холерных кладбищах, при этом могилы следовало засыпать известью. Это было воспринято как нарушение шариатских норм похоронного ритуала и даже как осквернение могил.

Ситуация усугублялась тем, что эпидемия холеры в Ташкенте совпала по времени со священным для мусульман месяцем Рамадан. В этот период верующие соблюдают строгий дневной пост, проводят время в молитвах и

чтении Корана и особенно чувствительны к любым отступлениям от религиозных правил. Некоторые фанатики стали распространять слухи о том, что русские врачи специально заражают воду в реке Бозсу, а заболевшим холерой вместо лекарств дают смертельный яд. Все это якобы проводится для того, чтобы наверняка умертвить людей, а затем похоронить без уважения к традициям, тем самым лишив их возможности после смерти попасть в рай.

Несмотря на растущее напряжение, поначалу протест горожан не был публичным и не имел агрессивного характера, а заключался лишь в том, что некоторые стали хоронить умерших от холеры тайно, не ставя в известность русские власти. Однако именно это и послужило причиной конфликта.

Открытое выступление, в официальной историографии часто называемое «холерным бунтом 1892 года», началось после того, как соперники тогдашнего аксакала — старосты мусульманской части Ташкента Мухаммада Якуба Карим Берды, сообщили толпе, что аксакал донес военному коменданту города полковнику Степану Путинцеву о тайных захоронениях. Незадолго до этого Путинцев выступил перед мусульманами в Пятничной мечети. Он публично разъяснял смысл противохолерных мероприятий русских властей и был выслушан прихожанами благосклонно.[2]

Однако уже на следующий день, а именно 24 июня, Путинцев подвергся нападению безоружной, но разъяренной толпы, требовавшей от него выдать на расправу предателя-аксакала. Толпа избивала коменданта и разгромила здание его управления. Путинцев вызвал на подмогу казачий полк и роту солдат. Но еще до прибытия войск группа жителей русской части города, вооружившись палками, атаковала толпу мусульман. Мусульмане бежали в сторону оросительного канала Анхор, где многие падали с высокого обрыва. Впоследствии, по свидетельствам современников, из канала было выловлено 80 трупов.

По официальным данным русских властей, в 1892 году от эпидемии холеры в Ташкенте умерло 1657 человек, из которых 1440 в мусульманской части Ташкента и 217 в русской. Сколько людей, было похоронено родственниками тайно, неизвестно до сих пор. Эпидемия началась в мае и полностью прекратилась в августе. По результатам расследования русских властей и военного суда над зачинщиками «холерного бунта», проведенного в декабре того же года, из 60 обвиняемых 8 человек были приговорены



к смертной казни, 2 к ссылке в Сибирь и 15 к арестантским ротам.[3]

Однако позже генерал-губернатор Туркестанского края барон Александр Вревский значительно смягчил приговоры. Смертная казнь по его распоряжению была заменена каторгой, а остальные наказания уменьшены. Современники отмечают, что сам барон Вревский во время беспорядков 24 июня находился за пределами Ташкента — на даче в горах Чимгана. В город он прибыл лишь 25 июня, отдал распоряжение не преувеличивать масштабы произошедшего, а затем снова уехал на дачу. После нападения толпы на полковника Путинцева в мусульманскую часть Ташкента были введены две сотни казаков и 4 роты солдат. Однако уже 30 июня по распоряжению генерал-губернатора войска были выведены из Старого города.[4]

Историографы России и Узбекистана по-разному трактуют подробности и последствия «холерного бунта» 1892 года в Ташкенте. Идеологи суверенного государства рассматривают их чуть ли не как начало национально-освободительного движения. Российские же ученые больше внимания обращают на недоразумения и случайности, которые могли привести к конфликту. Однако ислам в Узбекистане особенно подчеркивает роль в этих событиях шейха Абдулкасима. Согласно преданиям, он сыграл роль главного примирителя между мусульманским населением и колониальными властями.

Абдулкасим был одним из наставников суфийского ордена Накшбандийя и носил титул «ишан» — предводитель мусульман. Он обладал большим авторитетом среди жителей Ташкента благодаря своей учености: мог пересказать наизусть весь Коран и многие богословские трактаты. Абдулкасим также был известен как строитель и реставратор медресе вблизи городских ворот Бешигач. С XVI века в этом почитаемом месте располагалась суфийская ханака Муьи Муборак («Благословенный волос»), в которой, согласно преданию, находилась священная реликвия — волос из бороды пророка Мухаммада. По свидетельству современника шейха русского этнографа Николая Остроумова, на постройку медресе Абдулкасим выделил 30 тысяч рублей из собственных средств. Когда же строительство было закончено, он ежегодно оплачивал обучение в нем 150 воспитанников. Выпускниками этого медресе принято считать Абдуллу Кадири, драматурга Гуляма Зафари и других видных деятелей культуры и религии.

В одном из помещений медресе сохранилась каллиграфическая арабская надпись: «До чего красиво это здание, что свято как

небесный рай, Потому что хранится тут почтенный волос Пророка, Гордясь которым, мир пишет историю его: «Величественный храм святых волос Пророка». По мнению ученых Узбекистана, в последней строке этого четверостишия зашифрован год строительства медресе. Буквы арабского алфавита, согласно традиции абжад, имеют цифровое соответствие. Согласно этому соответствию, год постройки медресе датируется как 1849. Это значит, что к моменту «холерного бунта» медресе уже было построено и действовало 43 года. Встает вопрос: сколько же лет могло быть в 1892 году почтенному шейху, который инициировал еще его строительство?

Народные предания приписывают Абдулкасиму заступничество перед колониальными властями, благодаря чему русские войска были очень быстро выведены из мусульманской части Ташкента, а подавление беспорядков не превратилось в массовые репрессии. Шейх обращался к генерал-губернатору Вревскому с посланиями, объяснявшими, что восстание не было направлено против власти русского царя, а лишь защищало нормы шариата.

Однако до нас дошли и куда более удивительные сведения о шейхе Абдулкасиме. Так, легенда утверждает, что он принес в жертву собственную жизнь, чтобы остановить эпидемию холеры. Будто бы в самый разгар печальных событий в его доме собрались все авторитетные представители местного духовенства, чтобы обсудить две важных темы. Первая — как сдерживать недовольство мусульман санитарными мерами, чтобы не вызвать жестокой расправы над народом со стороны русских войск. Вторая — как остановить болезнь, не нарушая законов шариата. Согласно легенде, шейх Абдулкасим заявил собравшимся, что примет на себя беду, постигшую город, и холера скоро покинет Ташкент. Назавтра шейх умер от молниеносной формы холеры, и в тот же день эпидемия прекратилась.

Конечно, нет никаких научных доказательств того, что смерть Абдулкасима связана с окончанием эпидемии. Однако народной традиции такие доказательства и не требуются. Впрочем, даже люди, не склонные к преувеличениям, признавали труднообъяснимую взаимосвязь двух вышеперечисленных событий. Тот же Николай Остроумов писал: «На склоне лет сильно переживавший из-за последних событий Абулкасымхан скончался от холеры. Удивительно то, что после его смерти холера остановилась, и местные узбеки считают, что смерть человека, посвятившего себя Аллаху,



смягчает гнев Бога, который ниспослал грешникам холеру».

Здание медресе Абдулкаси́ма, построенное в XIX веке, хорошо сохранилось и потребовало лишь незначительной реставрации в 2002 году. Как уже говорилось, оно находится совсем рядом с парламентом и обычно не посещается религиозными паломниками. Сейчас здесь расположена ремесленная ассоциация «Хунарманд» и школа традиционных национальных ремесел резьбы по дереву, ювелирного мастерства и живописных миниатюр. Сюда приводят экскурсии, в том числе и иностранных туристов, которые приобретают здесь экзотические сувениры.

Показательно, что большинство жителей современного Ташкента знакомы с легендой о шейхе Абдулкасими — пусть и в разных версиях. Впрочем, это не удивительно: легенда имеет сравнительно недавнее происхождение и хорошо согласуется с государственной идеологией национального суверенитета, уважения к народным традициям и духовным ценностям ислама.

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## **A STUDY ON PASSENGER'S SATISFACTION USING FASTAG WITH SPECIAL REFERENCE TO COIMBATORE CITY**

[DrNGPASC 2020-21 COM019]

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### **ABSTRACT**

*FASTag is a technological improvement in toll collection system. It is a system based on RFID technology. RFID is radio frequency identification device. A tag with RFID technology known as FASTag tag is affixed on the windscreen of the vehicle. When the vehicle passes the toll the tag is detected and the amount is deducted from FASTag account. The FASTag account can be opened in any bank or through net banking or by mobile apps. The amount in the account gets deducted automatically and SMS will be received for the transaction. And if the account is of insufficient balance will also be notified. FASTag reduces the fuel consumption of the vehicle, reduces traffic congestion, reduces paper works and it also reduces air pollution. The essential objective of this study is to know the satisfaction level of people using FASTag with special reference to Coimbatore city.*

**KEYWORDS:** FASTag, Technology, RFID, SMS, Fuel.

### **INTRODUCTION**

India is a country with huge population. As the population increases the technological advancements also increases. And India is a country with the second largest road network in the world, out of the total stretch of 5.4 million km of road network, almost 97,991 km is covered by National highways. The NHAI [National Highways Authority of India] is responsible for the road maintenance and the expansion of highways. It is a nodal agency of the Ministry of Road Transport. These National highways collect tax from the people who pass through the toll, which is known as toll tax. And the amount collected is used for road maintenance. The toll collection is done by cash method. But now it is made automatic way of toll collection system using FASTag with RFID technology.

### **FASTag**

In January 2019, the state-run oil marketing companies like IOC, BPCL AND HPCL have signed MoUs enabling the use of FASTag to make purchase at petrol pumps. And from September 2019, FASTag lanes are accessible on over 500 national and state highways. And over 54.6 lakh cars are enabled with FASTag. Starting on 1<sup>st</sup> January 2021, FASTag was made mandatory for all vehicles but it was later postponed to 15<sup>th</sup> February 2021.

FASTag is a simple reloadable tag which detects toll charges automatically. The need for stopping at the toll plazas for making payments is not necessary. The tag is affixed on the vehicle's windscreen and it works with the help of Radio-frequency Identification [RFID] technology. The customer can get his FASTag account created by



paying a onetime fee of Rs.200 by visiting any Point of Sale[POS] location at toll plaza or any Issuer agency.FASTag account is procured by making a payment through cheque or online through Credit card or Debit card or by NEFT or RTGS or through Net banking. FASTag account can have a maximum balance of Rs.1,00,000[One lakh rupees only].After recharging FASTag account the passengers can drive their vehicles through FASTag lanes at toll plaza and the toll amount will be automatically deducted from their FASTag account.

### STATEMENT OF THE PROBLEM

People were accustomed to using roads for free by only paying tax. Then the roads became better and charges were collected for using those roads. People who wanted lesser travel time chose those roads with Toll plazas. Now, most of the National Highways have become roads with Toll plazas. This has made all the people to come across Toll plazas in their travel often. Now, Government has also introduced FASTag services which provides RFID Tags and makes the payment for the Toll plazas linked to their various bank accounts and other cash accounts. Government's effort to make FASTag is not being welcomed by the people. They feel it as a burden many times. So, this "Study on Passenger's satisfaction using FASTag services with special reference to Coimbatore city" was carried out to find out where the people face problems because of FASTag services and what make them feel satisfied about the FASTag services. The study also aims at identifying the suggestions of the people to overcome the problems associated with the implementation of FASTag services.

### OBJECTIVES OF THE STUDY

1. To understand the demographic characteristics of the people using FASTag
2. To examine the problems faced by the people due to the implementation of FASTag
3. To analyze the satisfaction of people towards FASTag

### METHODOLOGY OF THE STUDY

#### Research design

A research design is truly and simply the framework of plan for a study and it guides the Collection and analysis of data. It is descriptive in nature.

#### Area of the study

The study is take on in Coimbatore city.

#### Sample size

The sample size for the study is limited to 125 respondents.

#### Sampling techniques

Convenience sampling technique is used for the study.

#### Period of the study

The Period for the study is 4 months i.e. January 2020 to March 2021.

#### Methods of data collection

Questionnaire method is used to collect the data from the respondents.

#### Source of data

The study is based on primary and secondary data. The primary data had been collected from the respondents through questionnaire and secondary data is collected from articles, books, magazines and newspapers.

### TOOLS USED FOR THE STUDY

The tools used for analysis are

- Simple percentage analysis
- Rank analysis

### LIMITATIONS OF THE STUDY

- The major limitations of the study are that respondents' bias cannot be judged and small sample size.
- The study confined to Coimbatore city only and hence the result cannot be generated to other areas.
- Internal prejudice of the respondents serves as a limitation of the study.
- Due to time constrains, the number of respondents taken for the study is limited to 125

### REVIEW OF LITERATURE

Venkatesh Suvarna, Jeet Patalia have tried to analyze some of the current RFID highway toll collection systems and to predict their practicality in real conditions. They also support researchers who take this review as a baseline to continue to better the systems discussed for better performance, efficiency or reduced complexity.

Pranoti Salunke,et.al. The Electronic Toll Collection system in expressway based on RFID, a design scheme was put forward. It is low cost, high security, far communication and efficiency, etc. It not only improves the passage ability of expressway but also



improves the technology level of charge. Electronic toll collection system using RFID is an effective measure to reduce management costs and fees, at the same time, greatly reduce noise and pollutant emission of toll station. In the design of the proposed Electronic toll collection (ETC) system, real time toll collection and anti-theft solution system have been designed. This reduces the manual labour and delays that often occur on roads. This system of collecting tolls is eco friendly and also results in increased toll lane capacity. Also an anti-theft solution system module which prevents passing of any defaulter vehicle is implemented, thus assuring security on the roadways.

**T. Arun Prasath, M.S.Dhanabal** said that RFID is not replacement of Bar code but it is a technology offering various features. RFID offers highly reliable data collection in harsh environments. RFID technology can provide new capabilities as well as an efficient method to collect, manage, disseminate, store, and analyze information It not only eliminates manual data entry but also inspires new automation solutions.

RFID’s attributes provide greater automated tracking capability than existing technologies, and thus create the opportunity to reduce abhor, improve inventory management and generate better market intelligence, leading to lower operational costs and increased revenue generation .

**M. Sumithra and B. Buvanewari** reviewed the research and development of the tax collection at the toll gate on highway with the help of RFID using SMART CARD technology. By developing this system, the knowledge of RFID system PIC microcontroller, GUI design are realized. For this system, passive tags are better than the active tags because of low cost low power consumption and also radio signals environmental factors. By using smart card system, the vehicle can check for security with the passing time, save time and reduce traffic congestion at the toll plaza. Therefore, the RFID based SMART CARD technology is the best way for the toll collection at the toll gate.

**SIMPLE PERCENTAGE ANALYSIS**

**TABLE SHOWING THE DISTRIBUTION OF THE OCCUPATION OF THE RESPONDENTS**

S.NO	STATEMENT	NO. OF RESPONDENTS	PERCENTAGE
1	Student	26	20.8
2	Employee	26	20.8
3	Businessman	60	48
4	Others	13	10.4
	TOTAL	125	100

Source: Questionnaire

**INTERPRETATION**

It is interpreted that 20.8% of the respondents are students ,20.8% are employees,48% are businessman and 10.4% are other occupation.

**INFERENCE**

Majority 48% of the respondents are Businessman.

**TABLE SHOWING THE DISTRIBUTION OF THE RESPONSE TOWARDS THE STATEMENT “BY WHICH VEHICLE YOU PASS TOLL?”**

S.NO	STATEMENT	NO. OF RESPONDENTS	PERCENTAGE
1	Car	82	65.6
2	Bus	19	15.2
3	Lorry	13	10.4
4	Others	11	8.8
	TOTAL	125	100

Source: Questionnaire



**INTERPRETATION**

It is interpreted that 65.6% of the respondents pass by car, 15.2% pass by bus, 10.4% pass by lorry and 8.8% pass by other vehicles.

**INFERENCE**

Majority 65.6% of the respondents pass by car.

**TABLE SHOWING THE DISTRIBUTION OF THE RESPONDENTS TOWARDS THE STATEMENT “HAVE YOU EVER FACED THE PROBLEM OF DOUBLE CHARGES TAKEN FROM YOUR ACCOUNT?”**

S.NO	STATEMENT	NO. OF RESPONDENTS	PERCENTAGE
1	Yes	55	44
2	No	70	56
	TOTAL	125	100

Source: Questionnaire

**INTERPRETATION**

It is interpreted that 44% of the respondents have faced the problem of double charge taken from their account and 56% have not faced the problem of double charge taken from their account.

**INFERENCE**

Majority 56% of the respondents have not faced the problem of double charge taken from their account.

**RANKING ANALYSIS**

**LEVEL OF SATISFACTION IN FASTAG**

FACTORS	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	RANK
EASE OF PAYMENT	56 280	24 96	26 78	11 22	8 8	125 484	I
CONVENIENCE	21 105	55 220	25 75	21 42	3 3	125 445	II
SAVES TIME	29 145	35 140	37 111	15 30	9 9	125 435	III
SAVES MONEY	26 130	34 136	28 84	32 64	5 5	125 419	V
ONLINE PORTAL	26 130	36 144	25 75	18 36	20 20	125 405	VI
FUEL CONSUMPTION	27 135	34 136	40 120	11 22	13 13	125 426	IV

**INTERPRETATION**

The above table shows the level of satisfaction of people using FASTag and that are ranked based on the returns of the respondents.

From the analysis it is understood that the respondents have given 1<sup>st</sup> rank to Ease of Payment, 2<sup>nd</sup> rank to Convenience, 3<sup>rd</sup> rank to time saving, 4<sup>th</sup> rank to fuel consumption, and 5<sup>th</sup> rank to money saving and 6<sup>th</sup> rank for online portal.

Hence it is concluded that people using FASTag are more satisfied with Ease of payment in FASTag.

**CONCLUSION**

FASTag is considered to be an advantageous mode of toll collection system in India. It offers a numerous benefits for environment and for both the user and the collector. But it also has many problems in it. If these problems are designed with appropriate solutions then FASTag will be a technologically



superior mode of toll collection and it would be a game changer in toll collection system in future. The present study has brought out the satisfaction level of passengers and the benefits they enjoy using FASTag and the problems faced by them and suggestions to be improved in FASTag for its betterment.

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## **ASSESSMENT OF THE PERFORMANCE OF NATIONAL SPECIAL PROGRAMME FOR FOOD SECURITY IN NIGER STATE, NIGERIA**

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### **ABSTRACT**

*The study assessed the performance of the National Special Programme for Food Security (NSPFS) in Niger State, Nigeria. A total of 180 respondents were selected using multistage sampling technique. The project sites were chosen purposively comprising of all the nine sites of NSPFS in Niger State, namely; Nassarawa, Batavovogi, Lenfa-Bororo, Gidan-Mangoro, Garam, Mankangara, Lioji, Kaboji and Shambo. The respondents were selected proportionately based on each site's activities. Data collection lasted from 15th February, 2013 to 31st August, 2013. Data were analyzed using descriptive statistics such as percentages and means, frequency distribution, performance indices computation. The results of the analysis showed that, the mean age of the beneficiaries was 47.82 years, farming experience was 30 years. The mean age for non-beneficiaries was 43.59 years, farming experience was 25 years. The results of the analysis further indicated that there was high performance in the following components: existing primary groups (100%), amount of money in the account (100%), existing modules in the site (73.53%), and loan disbursement (99.30%), based on the performance indices. Crop enterprises recorded low performance (63.61%). The study concluded that the performance of the NSPFS was high in the following components: number of primary groups existing, apex amount of money in the account, existing modules in the site, and grouping based on gender for easy accessibility, loan disbursement and farm animal enterprises. It was recommended that the NSPFS should focus more attention on mechanization, storage facilities, agro-processing, marketing, small scale irrigation, and infrastructure, because it will help the benefitting farmers to actualize their pre-determined goals, it will also improve their well-being.*

**KEYWORDS:** Food, Security, Food Security, Agricultural Science

### **INTRODUCTION**

Plummeting food insecurity continues to be a major public policy challenge in developing countries (Abu, 2012). Achievement of food security in any country is typically an insurance against hunger and malnutrition, both of which hinder economic development (Davies, 2009). This explains why all

developed and some developing countries make considerable efforts to increase their food production capacity. According to the Food and Agriculture Organization (FAO) (2008), approximately one billion people worldwide are under-nourished, many more suffer from micro-nutrient deficiencies, and the absolute numbers of the people tend to increase further,



most especially in Sub-Saharan Africa (SSA). The World Bank (1986) proposed a definition of food security, which remains current today broadening the emphasis from food availability to include access to food, and narrowing the focus from global and national to households and individuals: “access by all people at all times to enough food for an active life.”

According to Wibberley, (2005) food security at household, village, national and international levels require the availability of adequate quantity and quality of locally-grown agricultural products; accessibility of supplies for urban and land-remote areas, appreciation of the close link between nutrition and health for work and enjoyment; avoidance of undue risk through livelihood vulnerability, hazard and shock in reserves. Maziya-Dixton, Akinyele, Oguntona, Nokoe, Sanusi, and Harris, (2004) defined food security as the access at all times by the people, either through own production or through purchase of enough food for active, healthy life. Food security exists when every person has physical and economic access at all times to healthy, nutritious food in sufficient quantity to cover the need of their daily ration and food preferences, in order to live a healthy, and active life (Sengooba, 1994). In a situation where this does not occur, we have food insecurity. It may be chronic or transitory. In chronic food insecurity, there is continuous inadequate diet and nutrition caused by the household’s inability to acquire food. It manifests in the form of persistent inability to either buy food or produce food on their own, on the other hand, transitory food insecurity results from a temporary decline in household access to food due mainly to instability in food price, production, household income or a combination of these factors in a critical situation.

In Africa, food insecurity remains a fundamental challenge and both cases of food insecurity abound often existing together and jointly predisposing affected individuals to disease and reduced vigor, vitality and the strength needed for physical tasks, mental retardation e.t.c. (World Bank, 2004). The issue of food insecurity is of high importance to Nigeria because, average calories and protein intake is only at the threshold of adequacy. Estimates show that, at least 41% of the population is food insecure; with 16% being severely under nourished in Nigeria and also in Sub-Sahara Africa (World Bank and International Food Policy Research Institute (IFPRI, 2006).

In Nigeria, two-thirds of the population lives below the poverty line and household food security is

inadequate (Vision, 2010). Nigerians suffer both income and food poverty, and poor access to the means of supporting rural development among other causative factors (World Health Organization (WHO) (2004). Consequently, food security which goes with food self-sufficiency and sustainability is still elusive (Nworgu, 2006). This is because, the agricultural sector has not been able to deal effectively with the problem of food security for the Nigerian people when viewed from the stand points of the nutritional status of Nigerians, household food security and food prices (Vision, 2010).

One of the Millennium Development Goals (MDGs) is to eradicate extreme poverty and food insecurity completely before 2015, but at present, the proportion of people who suffer from extreme hunger and people whose income is less than \$2 per day are very high (United Nations Development Programme (UNDP), 2010). The achievement of this target is very important in reducing hunger and poverty. This is because, it is believed that, hunger perpetuates poverty by reducing productivity and healthy living which, in turn prevents people from producing or acquiring the food they need. FAO (2005) observed that Nigeria has barely one year of expecting to eradicate food insecurity which does not look feasible going by the available statistics. To buttress this point, (World Bank and IFPRI, 2006) had earlier reported that over 40% of households across all agro-ecological zones in Nigeria face the problem of severe food insecurity.

The worsening levels of productivity and poverty in rural areas directly threaten the food security and living conditions of the average Nigerian. More than 95% of Nigeria’s food supply comes from the small scale agricultural sector dominated by poor peasant farmers or small scale farmers whose productivity is constrained by their extremely low educational standards, inadequate land or land tenure problem, low level of capital, limited access to the market, poor access to credit facilities, low productivity, low levels of modern technology, and other resource inputs (Kankwenda, Gregoire, Legros, & Ouedraogo, 2010). Food insecurity, even though not widespread, is a common phenomenon in Niger State (Vision 3:2020). There is dearth of documented evidence in this regard. Satisfying the population’s food requirements has remained evasive with resultant food shortages and malnutrition particularly among the low income groups (Vision, 2010). National Special Programme for Food Security (NSPFS) started its operation in Niger State in 2002, which covered the three agricultural zones in the State. This research work



assessed the performance of the programme in the State.

### **The Concepts of Food Security and Economic Development**

Nyam, (2005) defines food security as access by all people at all times to sufficient food for a healthy and productive life. Lenis *et al.*, (2011) asserts the definition of food security tailored along the definition of the World Food Summit held in Rome in 1996 to mean the right of everyone to have access to safe and nutritious food, consistent with the right of everyone to be free from hunger. Odey, (2004) articulates food security system definition as the availability and accessibility of foodstuff in desired quality to all consumers throughout the year. Gokum, (2007) while, acknowledging that the food security concept took its roots around the mid-1970s in the discussions of International food problems at a time of global food crisis he adopted the definition of the World Food Summit in 1996 to say, food security is the availability at all times of adequate world food supplies of basic food stuff to sustain a steady expansion of food consumption and to offset fluctuation in production and prices. The Food and Agriculture Organization (FAO) (2002) succinctly captures the definition of food security concept by stating that food security is a situation that exist when all people at all times have physical, social and economic access to sufficient, safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life. In essence, the underlying theme of the food security concept underscores the accessibility of the community's or individual's dietary needs at all times, which behooves as a moral obligation on all human beings to ensure that this topmost priority amongst the basic requisites of man is met for his survival.

Economic growth and development concepts are used interchangeably. It is worthy to note that these two concepts do not mean exactly the same thing as Food Security and Nutrition Working Group, (2012) agree no other by asserting that sustained economic growth overtime leads to economic development. He espoused that economic development would mean there is equitable distribution of increased output among individuals and areas such that the increased output is not concentrated in the hands of a few, the increased output is not counteracted by rapid population growth and the increasing level of production does not lead to massive unemployment as a result of labour saving devices or mode of production. Oni *et al.*, (2009)

defines economic growth as the increase of an economy's capacity to produce goods and services needed to improve the well-being of the citizen in increasing number and diversity.

According to Emmanuel, (2004) explained economic growth as the process which leads to substantial increase in the actual output of goods and services per head. Todaro and Smith, (2003) perceives economic development as multi-dimensional process involving the organization and reorientation of the entire economy and social system which involves radical changes in institution, social and administrative structure as well as popular attitudes, custom and belief. This structural change involve virtually all economic functions including the transformation of production, changes in the composition of consumer demand, international trade and resources use as well as urbanization, growth and distribution of a country's population. Economic development simply entails a sustained economic growth recorded overtime.

The Malthusian economics has articulated an arithmetic progression in food production given that the world population growth rate would be in geometric quantum. This view presupposed a dis-equilibrating scenario of shortages in food production to meet up the ever increasing population growth rate. This dis-equilibrating scenario was further articulated by the Marshalian economists who linked supply and demand in the context of time, which explains why some economists have argued that with the advent of technological improvements the gloom story as painted by Malthus would be far from achieving its postulates. However most recently, Oni *et al.*, (2009) have argued that, the concept of world food surplus is extremely mischievous. They contended that sustainable production depends on maintaining the carrying capacity which is a prerequisite to that production. Yet maintenance of agricultural and indeed, the whole earth's ecological carrying capacity, depend on limiting the human population growth which increasingly impairs it.

The Natural Environment Research Council Centre for Atmospheric Science situated in the University of Reading, United Kingdom reports that staple food conditions is most efficient in the tropics. This avail reasons why the most supply of staple foods is in the tropics e.g. rice and maize. The centre maintains that tropical regions experience large changes in weather and climate year to year, therefore making food production highly vulnerable to the variations in climatic conditions. The centre therefore



contends that reliable seasonal forecast of crop yield would be of real benefit to farmers and could assist with famine early warning systems. Discussions by Angus, (2008); Vidal, (2007); Collier, (2008) on the reasons of global crisis in prices and production of staple foods and other agricultural products reveal that natural shock such as droughts, growing population, net food importation by African countries, reduced assistance and investments by developed countries to the developing economies by the end of the green revolution era, conversion of food into fuel and animal feed, the linkage of food prices to oil prices, have contributed to reasons for the crisis. Dorelien, (2008) paper captures the above views more succinctly as he posits that “the prices of agricultural commodities, including staples of many African diets, have risen sharply over the last several years. The sharpest rises have been within the past six months. Since 2005, the prices of maize and wheat have doubled and the price of rice has now reached unprecedented levels.

According to World Bank, the Food and Agricultural Organization of the United Nations, the United States Department of Agriculture, and these rising prices are likely to persist through 2015. The factors leading to increased prices and resultant food crisis are diverse and complex. Most factors however, can be thought of as having impacts on the supply of food and/or the demand for food. The supply of food may be affected by land and water constraints, under investment in rural infrastructure and agriculture, lack of access to fertilizer and irrigation, trade policies and weather disruptions. Factors that affect the demand for food include rising energy prices and conversions of crop lands to bio fuel production, population growth, globalization of food markets and changing diets. The current food crisis is the simplest terms a result of rapid growth in food demand in conjunction with a decline in the growth of food supply”. This evolving global crisis has recorded serious consequences on developed and developing economies.

Emmanuel, (2004) posited that for the past 20 years, many African countries that have been food exporters have become net importers. Not only have they become dependent on foreign aid, but their increasing food bill has become a serious budgetary and political obstacle to progress and growth. Vidal, (2007) reporting on the crisis said that this crisis has led to 18% food price inflation in China, 13% in Indonesia and Pakistan and 10% or more in Latin America, Russia and India. He further reveals that, according to UN Food and Agriculture Organization, wheat has

doubled in price, maize is nearly 50% higher than a year ago and rice is 20% more expensive. Global food reserves are at their lowest in 25 years. Collier, (2008) captures these evolving consequences of food crisis more succinctly as he says that “the sharp increase in world price of staple food is an inconvenience for consumer in the rich world, but for consumers in the poorest countries, especially in Africa, it is a catastrophe” Joint field evaluation survey conducted by the National Agricultural Extension and Research Liaison Services (NAERLS), the Federal Department of Agriculture and National Food Reserve Agency (NFRA), (2007) in Andohol (2012) report avails that markets in West Africa are highly integrated and price changes due to supply or demand shocks are easily transmitted among neighbouring countries, especially any reduction in Nigeria staple food production, by far the largest economy and agricultural sector in the region, usually pushes up regional prices, and seriously affecting food security in neighbouring countries.

## STATEMENT OF THE PROBLEM

The Federal Government of Nigeria plans to extend the NSPFS to other areas of the country at the end of the pilot phase in line with one of the Millennium Development Goals (MDGs) which is to eradicate extreme poverty and hunger by halving the proportion of people in Nigeria whose income are very low to come by, thereby reducing the proportion of people who suffer from hunger between 1990 and 2015 (MDGs, 2004). Nigeria is blessed with fertile land (Vision, 2010) but, yet cannot provide enough food for her teeming populace, unless complemented with net food importation (Yusuf, Baba, Mohammed & Dogondaji, 2009). In the early 60’s to mid-80’s Nigeria had the ability to meet up with her food requirements. All of a sudden, something went wrong (Oni, Pender, Philips & Kato, 2009). Therefore, if there will be sufficient food supply for her citizenry, certain checks must be put in place. This study aims at assessing the performance of the National Special Programme for Food Security in Niger State. The State plays a vital role as an agrarian State that possesses fertile agricultural land as a cherished asset whose potentials in securing food productions are yet to be fully exploited (Vision, 2010).

The even climate, rich annual rainfall and availability of wide variety of minerals and agricultural resources all attest to the economic potential of the State, as one that will be food secure, if properly managed (Niger State Ministry of Agriculture (NSMA)



(2011). The State is surrounded with water to power engines needed for agricultural food production. The three hydro-electricity power stations i.e Kainji, Jebba and Shiroro dams are evidence (Niger State Ministry of Information (NSMI) (2012). Based on the foregoing, it can be said that despite the great potential that the State has in resolving food crisis, pockets of the population are still food insecure. Does this mean that the NSPFS programme like the previous programmes has not performed as expected? What can be done to put the poor and vulnerable groups on board the train of a food secure society?

**OBJECTIVES OF THE STUDY**

The broad objective of this study was to assess the performance of the National Special Programme for Food Security (NSPFS) in Niger State, Nigeria. The specific objectives of this study will be to:

1. Identify the socio-economic characteristics of participating farmers in the project sites;
2. Measure the performance of the programme in the achievement of predetermined objectives.

**Research Questions**

Against this backdrop, the following research questions are hereby deemed appropriate for this study;

1. What are the socio-economic characteristics of the participating farmers in the selected project sites?
2. What is the performance of the programme in the achievement of predetermined objectives?

**METHODOLOGY**

This study adopted descriptive research of survey design which comprises of selected farmers in Niger state. Multistage sampling procedure was employed in the selection of respondents for the study. The first stage involved purposive selection of the programme sites in the three agricultural zones in the State namely; Zones I, II, and III. There were nine project sites in the whole State. The second stage involved the selection of L.G.As in the respective project sites. This selection was purposive because, only L.G.As where project sites are domiciled was selected. The third stage involved the purposive selection of farming communities/villages that had benefited from the

programme. The field survey indicated that, the State have nine sites which comprise of farming communities/villages that have benefitted from the programme. All the nine sites formed the sampling frame for the purpose of this research work, namely: Nassarawa, Batavovogi, Lenfa-Bororo, Gidan-Mangoro, Garam, Makangara, Lioji, Kaboji, and Shambo. The benefitting communities were purposively selected as follows: From Zone I (with headquarters in Nasarawa), three sites, namely, Nasarawa, Batavovogi and Lenfa-Bororo were selected; while Gidan-Mangoro, Garam and Makangara were purposively selected from Zone II with headquarters at Gidan-Mangoro. From Zone III, (whose headquarters was located in Lioji) the following sites were purposively selected Lioji, Kaboji and Shambo respectively. A total of 180 respondents were selected for the study.

The data used for the study were from primary and secondary sources. Data were collected from the respondents using interview schedules (for the non-formal educated farmers) and the questionnaire (for the formal educated farmers) containing both open and close ended questions. Following Ajayi, (2000) and Daudu and Ajayi, (2009) the performance of the programme was measured using a performance index. This was done by using the respondents to indicate the target (expected quantity) and the achieved (actual optimal quantity available at a given time) values in respect of each of the provided innovations.

The model is given as;

$I_A = Q_A/Q_0 \times 100\%$  ..... (1)

Where,  $I_A$ =Availability Index

$Q_A$  = Quantity actually available

$Q_0$  = Optimum quantity at a given critical period.

When  $I_A$  is  $\geq 0.5$  or  $\geq 50\%$  = effective performance, otherwise it connotes ineffective performance.

To further assess the performance of the NSPFS, Chow-test was used to test for significant difference in the intercept of production functions between the groups sampled. According to Dougherty (2007), Chow test statistic is often used in programme evaluation to determine whether the programme has impacts on different sub-group populations.

It is express mathematically as;

$F = \frac{RSS - RSS1 + RSS2/K}{RSS1 + RSS2/ N1 + N2 - 2K}$  ..... (2)

Where, F = Chow F



RSS = Residual Sum of Square for pooled sampled.

RSS<sub>1</sub> = Residual Sum of square for beneficiaries.

RSS<sub>2</sub> = Residual Sum of Square for non-beneficiaries.

N<sub>1</sub> = Number of beneficiaries sampled.

N<sub>2</sub> = Total number sampled.

K = Number of parameters.

To be able to compute the sum of squares, a four production function was fitted to the data. The choice of this functional form was based on documented evidence of its wide application in production function estimation in agriculture. Four production function equations were estimated for the participating, non-participating and the pooled samples as follows respectively:

(1) Linear:

$$Q_p = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_1 \dots\dots\dots (3)$$

$$Q_n = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_2 \dots\dots\dots (4)$$

$$Q_{pn} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_3 \dots\dots\dots (5)$$

(2) Semi-logarithmic:

$$Q_p = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_1 \dots\dots\dots (6)$$

$$Q_n = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_2 \dots\dots\dots (7)$$

$$Q_{pn} = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_3 \dots\dots\dots (8)$$

(3) Cobb-Douglas:

$$\ln Q_p = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_1 \dots\dots\dots (9)$$

$$\ln Q_n = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_2 \dots\dots\dots (10)$$

$$\ln Q_{pn} = \ln\beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + \beta_5 \ln X_5 + e_3 \dots\dots\dots (11)$$

(4) Exponential:

$$\ln Q_p = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_1 \dots\dots\dots (12)$$

$$\ln Q_n = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_2 \dots\dots\dots (13)$$

$$\ln Q_{pn} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_3 \dots\dots\dots (14)$$

Where;

Q<sub>p</sub> = Total value of production for beneficiaries (N)/ ha.,

Q<sub>n</sub> = Total value of production for non-beneficiaries (N)/ ha.,

Q<sub>np</sub> = ,, ,, ,, ,, ,, the pooled sample (N)/ ha.,

X<sub>1</sub> is the seed input in Kg/ ha.,

X<sub>2</sub> is the fertilizer input in Kg/ha.,

X<sub>3</sub> is the agrochemical in litres/ha.,

X<sub>4</sub> is the labour input in man-days/ha.,

X<sub>5</sub> is the capital input/ha. (Comprising depreciation on agricultural tools and equipment, repairs and operating expenses of implements, rent, interest, payments, e.t.c),

Ln= natural logarithm,

β<sub>0</sub>= constant term,

β<sub>1</sub>- β<sub>5</sub> = estimated regression coefficients and

e<sub>1</sub>, e<sub>2</sub>, e<sub>3</sub> = respective error terms for participating, non- participating and pooled samples respectively.

## RESULTS AND DISCUSSION

### Socio-economic Characteristics of the Farmers in the Study Area

The socio-economic characteristics of farmers considered include, age, family size, years of formal education, years of farming experience, gender, farm income total output, marital status e.t.c. Others are hectares of land cultivated, problems faced by the respondents, and other secondary occupations.

### Age of Household Head

The results in Table 1 described the age distribution of the farmers in the study area, the age of a farmer determines the quality and quantity of work he or she can do on his/her farm. This is an important measure of farm productivity. Results in Table 1 show that, majority of the beneficiaries, that is to say 63.79% and non-beneficiaries 87.50% are within the age range of 21 and 50 years, which indicates, an agriculturally active age bracket, while 30.17% of the beneficiaries



and 9.38% of the non- beneficiaries are within the age of 51 and 60 years. This was followed by 6.04% of the beneficiaries and 3.13% of non-beneficiaries who are 61 years and above. The mean score of their ages were 47.82 years for the beneficiaries and 43.59 years for the non-beneficiaries. This research work agreed with Adesoji and Oluwatayo, (2011) who also found that majority, i.e (70.6%) of the respondents were above 35 years of age. This implies that majority of the respondents were within the agriculturally-active age bracket. The age of household head also indicates the ability of a farmer to avert risk due to accumulated experience over time.

### Gender Distribution of Respondents

The results in Table 1 also show the gender distribution of the respondents. Results showed that an overwhelming majority, that is, (89%) of the sampled beneficiaries and (78%) of non-beneficiaries were male, while the remaining (11%) of the beneficiaries and (22%) of non-beneficiaries were females. This implies that both beneficiaries and non-beneficiaries were predominantly males. This finding agreed with Aneke, (2007) who found that the number of male respondents was higher compared to their female counterpart who were involved in NSPFS. The implication of this is that, there will be gender inequality in food production. In order to provide food security for the populace, female entrepreneurs should be involved. Emmanuel, (2004) in his work advocated

for gender equality that is, women need to be carried along, by empowering them to contribute their own quota in food production. They need to be involved in developmental programmes such as the laudable National Special Programme for Food Security.

### Farming Experience of the Respondents

The results in Table 1 show farming experience of the respondents in the study area. The results show that 36.21% of the beneficiaries under National Special Programme on Food Security in Niger State and 31.25% of the Non-beneficiaries had farming experience between 21 and 30 years, 31.90% of the beneficiaries and 26.56% of the Non-beneficiaries had farming experience of between 31 and 40 years while, 19.83% of the beneficiaries and 37.50% of the Non-beneficiaries had farming experience of between 11 and 20 years. A total of 12.07% of the beneficiaries and 1.56% of the Non-beneficiaries had between 41 and 50 years of farming experience, while only 3.13% of the Non-beneficiaries had farming experience of between 1 and 10 years. The mean for the farming experience was 28 years. The years of farming experience have influence on production, storage and marketing of farm output, because, it is an indication of one is expertise in farming. It is expected that respondents with more years of experience will be able to make good decisions in respect of resource allocation and management of their farms and also enhance their risk taking ability and competence.

**Table 1: Distribution of Respondents Based on their Socio-economic Characteristics**

Variables	Beneficiaries		Non-Beneficiaries	
	Frequency	Percentage	Frequency	Percentage
<b>Age of Household head (years)</b>				
21-30	2	1.72	3	4.69
31-40	23	19.83	24	37.50
41-50	49	42.24	29	45.31
51-60	35	30.17	6	9.38
>60	7	6.04	2	3.12
<b>Gender</b>				
Male	103	88.79	50	78.12
Female	13	11.21	14	21.88
<b>Farming experience in (years.)</b>				
1-10	0	0.00	2	3.13



11-20	23	19.83	24	37.50
21-30	42	36.20	20	31.25
31-40	37	31.90	17	26.56
41-50	14	12.07	1	1.56

Source: Field Survey, 2013

### Daily Household Expenditure on Food

The household head spending determines how buoyant he/she is. This also determines how food will be made available for the family and how easily

accessible food is at any point in time. The daily household expenditure on food is presented in Table 2.

**Table 2: Daily household expenditure on food**

Amount in ( Naira )	Frequency	Percentage (%)
1-500	9	5.00
501-1,000	43	23.89
1,001-1,500	58	32.22
1,501-2,000	48	26.67
2,001-2,500	12	6.67
2,501-3,000	7	3.89
>3,000	3	1.67
<b>Total</b>	<b>180</b>	<b>100.00</b>

Source: Field Data, 2013

The result obtained showed that, each household head has his own capacity to purchase food to feed his or her family. Table 2 showed that, 32.22 % of them had a purchasing power that range between ₦ 1,001 – ₦ 1,500, followed by 26.67% of the total sampled respondents with ₦ 1,501 – ₦ 2,000, then 23.89% of them had a purchasing power of between ₦ 501 – ₦ 1,000. A total of 6.67% of the respondents spent between ₦ 2,001 – ₦ 2,500 on a daily basis, 5.00% of them spent between ₦ 1 – ₦ 500, 3.89% spent between ₦ 2,501 – ₦ 3,000 on daily basis while 1.67% of the sampled respondents spent above ₦ 3,000. Food is an indispensable commodity and a necessity. Nyam, (2005) also stated that household food security can be determined by the amount of capital or money a household head has to purchase food for his/her family. The implication of this to the study is that, amount of money boosts access to food at all times and improves food security and makes a household stable.

### Assessment of the performance of the National Special Programme for Food Security

Component indicators were used to assess the performance of the National Special Programme for Food Security, in Niger State. A summary of the component indicators is presented in Table 3. The performance indices used in this study presented in Table 3 indicated that, the number of primary groups existing were 100%. The performance index of the amount of money in Naira in apex account was also 100%, while number of existing modules in the sites was 73.53%. The number of existing modules fell short of optimal performance index by 26.47%. The performance index for the registered males and females were 100%. The total loan disbursed had a performance index of 99.30%, while crop and animal enterprises had 63.61%, and 72.91% performance indices respectively. Crop enterprise fell short by 36.39% and animal enterprise fell short by 27.09% respectively.

**Table 3: Performance indices of the NSPFS farm intensification component as at August, 2013**

Component indicator	Target level (T)	Actual level (A)	Performance index (%)
No of primary groups existing	133	133	100.00*
Amount in apex account (₦)	₦11,712,433.65	₦11,712,433.65	100.00*
Existing modules in the site	34	25	73.53*
Male group registered	94	94	100.00*
Female group registered	39	39	100.00*
Total loan disbursed (₦)	₦53,273,668	₦52,898,668	99.30*
Crop enterprises (₦)	₦ 89,056,785	₦ 56,650,890	63.61*
Animal enterprises (₦)	₦ 120,679,540	₦87,990,800	72.91*

\*High Performance Index.

Source: Field Survey, 2013

The implication of these results was that any component that recorded higher performance index also turned out to be a profitable enterprise, while low performance index such as; crop enterprise indicated that more attention ought to be placed on them to make it a more productive enterprise. The results agreed with similar findings of Daudu and Ajayi, (2009) who found that the performance indices for virtually all the components were high.

## CONCLUSION AND RECOMMENDATIONS

The study concludes that the performance of the NSPFS was high in the following components: number of primary groups existing, apex amount of money in the account, existing modules in the site, and grouping based on gender for easy accessibility, loan disbursement and farm animal enterprises. The following recommendations were made based on the major findings of the study. The NSPFS should focus more attention on mechanization, storage facilities, agro-processing, marketing, small scale irrigation, and infrastructure, because it will help the benefitting famers to actualize their pre-determined goals, it will also improve their well-being.

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## LINGUISTIC AND POETIC PROPERTIES OF FOLK PROVERBS USED IN VERSE TEXTS

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### ABSTRACT

*This article analyzes folk proverbs as one of the means of creating the highest example of artistic art in classical literature. They perform a lingua poetic role that meets the requirements of the text. Therefore, they are used in a modification form. Proverbs are mainly used for various methodological purposes. In some cases, they were used as a pun. It is particularly emphasized that Tamsila is accepted in classical literature as one of the most effective forms of art, which is used as a means of expressing public wisdom.*

**KEYWORDS:** *utterance of Irsol, Tamsila, artistic art, methodology, pun, poetic modification, rhythm and rhyme, literary form, archaic, rhyming, lingua poetic potential, classical literature.*

### DISCUSSION

One of the most effective types of folklore as an index in our classical literature is "Irsoli masal" or "Tamsil". The author of the article under discussion uses the most widely applied proverbs and sayings, which are the fruit of centuries of experience of the people, to substantiate his conclusions of life, views on social problems, ideas. Thus, it increases the student's confidence in the idea that his/her thoughts are not subjective and that he/she is in harmony with social ideas tested by historical experience. In this sense, as the Iranian literary scholar Z. Henry points out: *"on ast, ki shoir masali ma'rufero dar she'r biowarad, bo misrae bigo'yad, ki khukmi masal paido kunad wa kabuli omma yobad"*.

Obviously, both authors regarded art tamsil. as a means of ensuring the truthfulness and authenticity of ideas. Only Z. Tseni, emphasizes the artistic aspect of art, while highlighting the social form, Z. Khonlari draws attention to giving it the form of a sentence [5]. Literary scholar T. Atakhanov somewhat improves these descriptions and aims to generalize all qualities of tamsil art and cover comprehensively all qualities of tamsil art: *"Tamsil is yak naw sanyati ma'anawist. Ki dar on shior va yo nawisanda baroi kuvvat dodani fikru akida va davoi khud az yagon khodisai zindagiy va yo sukhanoni*

*khikmatnoki halqy, pandu andarz, misole meowarad. In tarz misolovariro irsoli masal yo tamsil menomand"*[3].

The Tajik literary scholar Kh. Rasulova in her article based on the views of these scholars dwells on artistic and aesthetic issues of irsoli masal art used in lyric poems of Nazir Nishopuriy and underlines that one of the main characteristics of Indian method is the use of irsoli masal art, which is also known as "tamsil" and that it is mainly used in expressions of moral themes, and that in the lyric poems of Nazir Nishopuriy unlike the works of Sokhiba Tabrizi (XVII), Kalim (XVII) or Urfiy Sherazi (XVII) "irsoli masal" was used more.

In Uzbek classical and modern literature, we can see that the art of "irsoli masal" fulfilled a highly linguistic and artistic task. The difference between the proverbs created by the art of irsoli masal and modern variants in the Uzbek language can be argued on several grounds:

- Firstly, there are cases of historical variants of proverbs in classical literature;
- Secondly, since the literary language of that time was far from the national language, the literary and folk versions of proverbs had a significant difference;



- Thirdly, the demand for rhythm and rhyme demanded a poetic modification of their form;
- Fourthly, the fact that Persian and Arabic elements were not limited to literary norms justified the peculiarities of the lexical structure of proverbs;
- Fifthly, this circumstance is also connected with the peculiarities of each writer's application of the word.

These and other factors have generally contributed to the peculiar linguistic and poetic possibilities and functions of folk proverbs.

Of course, grammatical features of the use of folk proverbs occur on a wide scale. This is a natural phenomenon, which should not be evaluated by the classical or modern meaning of the text, but rather by the type of speech and the literary character of the text.

As has already been said, the use of proverbs in grammatical terms occurs on a wide scale:

*Chun masal bo'ldi osing zulm ichra,  
yoshurmoq ne sud,*

*Mushk isin yoshursa bo'lmas, - bu masal  
mashkhur erur.*

(Alisher Navoi, "Badoye ul-bidoya") [2].

Instead of the basic morphological forms *-ib*, *-maid* in the text are used artistic variants *-sa*, *-mas*.

In modern Uzbek this proverb is not used in this form and it can be called an archaic proverb. The real version is *Kasalni yashirsang, isitmasi oshkor kiladi*. (You hide the disease, the temperature will give it away). According to our considerations, this proverb in the form of *Mushk isin yoshurib bo'lmaid* was not used in the old Uzbek language. Because the word *mushk* is more peculiar to the artistic method, and *mushk* itself is not common among the people. For the reason that we have no evidence on the folk language of that period on hand, it is only our opinion, and it is rather a supposition.

We can say that in the following two verses, the requirement of rhyme and rhythm in the proverb, along with the lexical requirement, the syntactic requirement and by morphological requirement, is more closely adapted to the text:

*Ki, dehqon nekim dona mazruiy etar,  
Ani -o'q urar, chunky vaqti etar.  
Qachon sochsa tufroqqa bug'doy birrov,  
Yuq imkonkim, ul arpa qilgay darav.  
Va gar arpa ham sochsa bo'lmoqqa to'q,  
Anga bug'doy o'rmog'ning imkoni yoq.  
(Alisher Navoi, "Saddi Iskandariy") [1].*

Based on the form of the proverb in today's application, we can take the proverb in the form of *Arpa ekkani arpa, bug'doy ekkani bug'doy o'radi* (What you sow, you reap) for analysis. The text does

not need proof that the units *qachon*, *birov*, *darav*, *yo'q imonkim* are introduced for rhythm and rhyme. More precisely, of these, *qachon*, *yo'q imkonkim* are introduced into the text for rhythm, and *birov* and *darav* for rhyme. In the following lines (*va gar arpa ham sochsa bo'lmoqqa to'q, Anga bug'doy o'rmog'ning imkoni yo'q*), the proverb in another version is reformed to give additional artistic meaning to the text.

*Khas agar o't bila sitez aylar,  
Ham o'zidin ul o'tni tez aylar.  
Asru mashhurdir bu so'zda bali:  
"It urar, karvon kechar" masali.  
Kelu mundin nori taabni unut,  
O'zni bu firdin muarro tut.*

(Alisher Navoi, Sabayi Sayyor) [2].

In the original, the proverb *It hurar, karvon kechar* is presented in the form *It khurar, karvon o'tar* (The dog barks, the caravan goes), the rhythm of the text required the use of the word *o'tar* instead of *kechar*. If, firstly, the word *kechar* is rarely used, and secondly, the use of *ke* (two-sound) instead of *o'* (one-sound) prevents the violation of phonetic rhythm in the text.

*Husndin mehr g'arazdur, ei ishq,  
Bu masaldur: silig'indin iliging .*

(Alisher Navoi's "G'aroyib ub sig'ar") *Hamul go'y otilg'och qochib yak-bayak,  
Masaldurki: "Ming karg'ag'a bir kesak"*

(Alisher Navoi, Saddi Iskandariy) [1].

Today, the proverb *Ming karg'ag'a bir kesak* is not used in the folk language. There are variants of *Bir o'q bilan ikki karg'ani urmoq* and *Bir o'q bilan ikki qushni urmoq* (Kill two birds with one stone). The word *kesak* used in the above proverb is characterized by the fact that it rhymes with *yak-bayak*, which is in the first line. At the same time, the word *karg'a* with its negative coloring strengthens the subjective coloring of the previous line.

The proverb used in the following text may also be called archaic or historical. The text, in a sense, expresses the mood of the creator.

*Vale muncha afsonadin ne asig',  
Ki, shah komig'a keldi shahdim achig'.  
Ne khush debdur ul dardmandi firoq,  
Ki: "Oz bakht k'p khusndin yahshiroq.  
Shikoyat manga yo'qturur shohdin,  
Ki, shikvam erur bakhti gumrohdin".  
(Alisher Navoi, Saddi Iskandariy) [1].*

The proverb is formed according to the method of antithesis. Therefore, it uses the comparative degree of the adjective. The content of the proverb in methodological terms is used to



substantiate the opinion that luck is higher than the qualities I have, that royal generosity is higher than my virtues. The ending of the proverb with the previous line created an open rhyme. Besides with the use of the art of leaning, the following lines enhanced the content of the proverb - strengthened and elevated it.

## CONCLUSION

The art of "Irsoli masal" in the texts of classical literature are also created on the basis of proverbs of other languages. Uzbek classical literature uses historical variants of proverbs in the use of "Irsoli masal". In such cases, there are significant differences in the literary and national versions of the language, in the literary norms will not be limited to Persian and Arabic elements. The peculiarities of the lexical structure of proverbs justify such changes, it is also connected with the peculiarities of the use of the vocabulary of each writer [6].

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## SPECIFIC FEATURES OF SYMBOLS IN LITERATURE

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### ABSTRACT

*The article under discussion depicts the types of symbols, i.e. symbols in literature, their specific features. The authors of the article consider that symbols have a special, defining place in the whole variety of sign-language means. Symbols are the most capacious and significant, productive and concentrated form of expression of cultural values and meanings.*

**KEY WORDS:** *symbols, literature, specific features, interpretation, objective analysis, productive, concentrated form, expression of cultural values and meanings, philosophical, methodological, aesthetic.*

### DISCUSSION

The concept of symbol in philosophy, literature and art is one of the most controversial concepts.

For a long time the term "symbol" was not used in domestic scientific literature in its adequate meaning. It was replaced by the words "image", "sign", "allegory", and "metaphor".

Such neglect of the term caused by its subjective-idealistic interpretation looked strange. In refusing to use this term, we would also have to refuse to use a number of other terms. For example, the term "idea". It has a clearly idealistic origin and is used by various philosophical currents, including idealism.

Objective analysis shows that when posing philosophical, methodological, aesthetic and cultural problems, it is impossible to do without the term "symbol" in its adequate meaning. "Without its study many aesthetic theories, and even whole philosophical systems of the past cannot be grasped or sufficiently expounded" [3, 4]. Defining the importance and necessity of the term "symbol", A. F. Losev wrote that "... cognitive and vital functioning

of infinitely different symbols and the whole functioning dialectics of the symbol in the most acute way are very great and inadequate, even hardly describable" [3]. Therefore "the doctrine of the symbol is one of the most urgent problems"[3] of cultural philosophy, literary studies and other frontier sciences.

Symbols have a special, defining place in the whole variety of sign-language means. It is the most capacious and significant, productive and concentrated form of expression of cultural values and meanings. It is the most powerful of all "tools" available in culture for the realization of its spiritual possibilities.

A symbol is a concrete and visible embodiment of those or other ideas and ideals as the highest values and meanings by which we live, and by which the development and functioning of culture is conditioned. A symbol embodies the highest spiritual ideals of culture and therefore becomes the central defining formation of the entire complex of its sign-language expressions. At the same time, the symbol embraces all cultural phenomena and elements.



A symbol, in the aspect of its structuring and regulating principle, an idea, is a concentratedly expressed cultural and personal meaning or value of human existence as the deepest essence of the world [4].

The way an idea is realized in a symbol, or the question of its form, one of the central questions in understanding the nature of a symbol, is the dialectical unity of opposites - the material and the sensually perceived "body", in other words, a certain concrete object and the meaning or idea. A symbol, a speculative reality, is the result of the relationship between the material and the ideal: the ideal is expressed in the sensually perceived form of the material "body" of the symbol, and the material is expressed in the ideal form, in individual or social consciousness.

Naturally the question arises about the form of symbolic expression. It manifests itself both in the materiality of the symbol's "body" and in the ideality of its individual or social perceptions. It is this moment of union that allows the idea that structures a symbol to exist in its full dimension and to penetrate into the most profound depths of being. The relation of the notions of sign and image, and the study of their basic characteristics gives an idea of the form and method of symbolic expression, because signification and imagery are the most general ways of representation and substitution of phenomena, properties and relations of both the material and spiritual worlds. Their main features allow us to solve the question of what form or mode of symbolic expression is.

A symbol in literature is first and foremost a connection. It combines the physical picture and its transcendent, metaphysical meaning, which suddenly, suddenly begins to "shine through" the everyday real, giving it the features of another, ideal being. In other words, a symbol in literature is a sign or object that substitutes for some other object, expressing its hidden essence and simultaneously being a conductor of the system of ideas or perceptions of the world peculiar to the one who uses the symbol; a conventional expression of the essence of a phenomenon through the appearance, form of another object or even its inner qualities, in this case also becoming a "form". By losing its independent essence, the object-symbol or word-symbol begins to "represent" something else entirely. Thus, "voluptuousness" for Bryusov is a symbol of communication in the highest sense of the word, of fusion, of interpenetration of two people until they dissolve into each other. In everyday usage, the word has another, substantially less "high" meaning.

Symbols in literature may be objects, animals, known phenomena, such as natural phenomena (Ostrovsky's "Thunderstorm"), signs of

objects, actions, etc. Here are examples of symbols steady in the history of culture: scale - justice, power and scepter - monarchy, power, the dove - peace, goat - lust, mirror - another world, lion - strength, courage, dog - loyalty, donkey - stubbornness, rose - female beauty, lily - purity, innocence (in France lily is a symbol of royalty).

Culture attaches a sign character to all the named objects, creatures and phenomena. Due to this they are also the basis for such an artistic technique as allegory.

The lotus is a symbol of deity and the universe among the Hindus. Bread and salt is a symbol of hospitality and friendship among the Slavs. Serpent - wisdom on the one hand and sin (Old Testament) - on the other. Cross - crucifixion, Christianity. Parabola - infinity. Morning symbolizes youth, the color blue - hope (in the object system, its symbol is an anchor). There are a variety of rows of symbols (object, color, geometric, etc.). In different cultural systems different signs may receive different meanings. For example, in the Evangelical system, fish is a symbol of Christ, in the New Age they take on a sensual, erotic meaning. Artistic images of the heroes of literary works, thanks to their valuable existence in culture, also acquire the character of a symbol in literature (for instance, Prometheus, Odysseus, Orpheus, Hamlet, Don Juan, Casanova, Don Quixote, Munchausen, etc.).

Structurally, a symbol is close to an allegory, also consisting of two parts, but both of its components (both what is symbolized and what is symbolized) exist in real reality, whereas in an allegory one component is usually a figment of fantasy. A symbol always conceals a hidden comparison, a connection of the transformed phenomenon with the everyday situation (object), a historical event (phenomenon).

In fiction, it can be considered one of the varieties of the artistic image, but it is usually perceived independently. It can be an individual creation of this or that author (for example, the "bird-troika" in Gogol) or common to two or more authors (in Balmont and Brodsky the poet's speech is a symbol of his personality as a whole), or a universal cultural unit. Thus, a symbol of the connection between life and death is the journey to the underworld and the return from it, which appears in the works of folklore of ancient peoples and appears in the works of authors of the New times. This symbol was used, for example, by Virgil, Dante, J. Joyce, Brusov and other poets. In addition to the connection between the two polar worlds, it means the initiation of the soul thanks to the receipt of a complex spiritual experience, its immersion into darkness and further purification, awakening [3].



The symbol in general most often draws its material from the life of nature, this inexhaustible source of parallels and similarities. But this, by the way, makes the way to the symbolic meaning much easier for us. It makes it much easier for us because the archetypes of folklore and, first of all, its inclination for the juxtaposition of the two worlds which is so popular in all national forms, live in our aesthetic memory [2].

If a Russian folk song depicts the sadness of a girl, she certainly recalls a similar state of nature:

*Что затуманилась, зоренька ясная.*

*Пала на землю росой?*

*Что призадумалась, девица красная.*

*Очи блеснули слезой?..*

*(What has fogged up, the bright zorenka.*

*Fallen dewy on the ground?*

*What's on your mind, red maiden?*

*What tears have glistened in your eyes?)*

Let these lines in their individual poetic refraction (A.F. Veltman) pick up that characteristic folklore principle of landscape-psychological parallelism, which was exhaustively studied by Academician A.N. Veselovsky. The folklore aesthetics of correspondence between the soul and nature, firmly imprinted in our cultural memory, is revived in the perception of the symbol, urging us to restore, as it were, moving in the habitual line of associations, the severed link (image of the soul) where the image of nature is designed for such restoration. Of course, the symbol is not at all a truncated form of landscape-psychological parallelism. But so far we are talking about nothing else but the preconditions of perception rooted in cultural memory.

We need to understand another, perhaps the most important quality of the symbol: it is designed to comprehend the higher meaning lurking behind the image, but it is as if it does not insist on the necessity of such comprehension. What is an allegory worth whose allegorical meaning we are unable to penetrate? Meanwhile, the full-fledged artistic symbol in literature does not lose its aesthetic charm even when in its perception we remain only in the circle of the depicted, without crossing the line beyond which there arises a presentiment of symbolic depth.

In poetic pictures of the world that gravitate toward symbolism, stable symbolic series are usually born, which are a kind of associative "trajectories" of such a worldview. This is clearly seen in Lermontov's example. In Lermontov's lyrics, a chain of poetic symbols emerges, embodying the tragedy of the separation of souls and the vain attempt to bridge the abyss through the power of the gust of the soul. The depth of the tragedy lies in the fact that in Lermontov's poems these souls are souls who are

marked by the sign of kinship, but who are either separated by impassable space ("On the Wild North") or separated from one another ("The Oak Leaf", "A Branch of Palestine", etc.) by the winds of fate. This whole symbolic chain begins to resonate as soon as one link is touched, and this resonance has enormous clarifying power [1].

Like allegory, symbolism is sometimes rooted in tradition, in the aesthetic and philosophical leanings of literary movements. This non-individual symbolism concentrates primarily on their ideas of values. It is not difficult to understand why, for example, the Romantics were so attracted to the symbolism of the sea, night and plants. They (Byron, Pushkin, Tyutchev) were attracted to the sea as a symbol of unexplored depths of the soul, its eternal movement and impulse, romantic immensity and spontaneity. In the minds of romantics (Novalis, Hoffmann, Zhukovsky, Tyutchev and others) night was associated with the idea of the beyond, of irrational mysteries of the world and soul, of the dark essence of existence, covered by the motley fabric of day, finally of the rise and triumph of the human spirit, freed from the fetters of daily vanity [4].

## CONCLUSION

The experience of world literature convinces us that the symbol has truly inexhaustible aesthetic possibilities and potentials. That is why no literary epoch could do without it. The symbol as the most important form of embodiment of the writer's worldview is yet to live a long life in literature as well.

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## **CREATIVE ASPECTS OF THE EDUCATOR IN THE PROCESS OF TEACHING THE SUBJECT OF ALTERNATIVE ENERGY SOURCES**

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### **ABSTRACT**

*The article under discussion presents the results of experimental research and a presentation of scientific research carried out to increase the creativity of teachers working in higher educational and professional educational institutions. Influence on improving the quality of education; a high degree of teacher's creativity.*

**KEY WORDS:** *technique, teacher, technology, education, creativity, skills, energy, solar cells, academic performance, student.*

### **INTRODUCTION**

Despite the fact that in technical higher and vocational secondary special educational institutions, classes are organized, the level of knowledge of students is not at the required level, which has attracted the attention of education officials and authority of our country [1-3]. The fact that the level of knowledge does not keep pace with the times, most of the old materials are studied and the level of mastery is maintained in extremely dangerous situations, which requires the development of measures to address these shortcomings, therefore it is a serious approach to the educational system. The urgency of this issue can be explained by the following reasons. First of all, the role of each

country on the world stage is determined by its energy independence. Many years of observation and analysis show that the wars and political games taking place on the planet are mainly due to the fact that countries with abundant natural energy resources do not agree to share among the major developed countries. These conclusions are confirmed by armed majorities in countries such as Iran, Syria and Afghanistan. In addition, in a country with a high share of scientific personnel, the development of techniques and technologies is accelerating, they are among the largest countries with megacities, their prestige is growing. Finally, the poor quality of education leads to disruptions in the most important energy systems (gas, electricity) as a result of



ignorant management of the operation of existing technical and technological equipment in the country, leading to public discontent and lack of support for public policy. The most unfortunate thing is that the living standards of the population are deteriorating and their health is deteriorating.

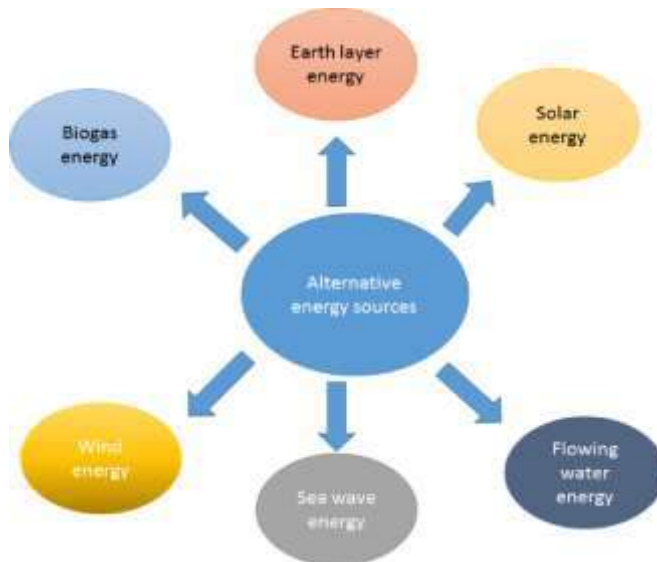
However, there are many challenges in achieving results that eliminate such negative consequences. The main of them is the problem in the field of education. Because there are almost no methods of teaching technical sciences to young people with an interactive and innovative character of teaching. Even if there are, they constitute a small amount. This is due to the fact that the majority of teaching staff are teachers of pedagogical courses, which modernize the teaching process and provide in-service training courses for teachers. This suggests that they cannot recommend any practical good-performing methods for conducting lessons, ranging from the use of technical literature. If we also take into account the large number of technical and natural sciences, then the idea that a separate method should be developed for each science is also valid. No matter how much these conclusions are debated and challenged, no matter how much they are challenged, they will still be useful.

Based on the above ideas and considerations, this article shows that the focus is on key aspects of teaching the science of alternative energy sources in technical universities and vocational education institutions. It is advisable for educators consisting of engineers and technicians to get acquainted with the results of the research, which is written as a guide, when students are admitted to the auditorium without any pedagogical and teaching skills.

## **FUNDAMENTALS OF TEACHING THE SCIENCE OF ALTERNATIVE ENERGY SOURCES**

Before embarking on the study and teaching of science on alternative energy sources, the essence of the content of science should not only be understood by the educator, but, of course, analyzed and taught step by step [4] as there are types and classes of alternative energy sources. If the work begins by explaining the differences between them, and then is taught by taking some kind of one of these species, it will help the students to define and organize their imaginations. Alternative energy sources are divided into species in Figure 1, and each species class has its own characteristics. For example, solar energy is the strongest and most powerful source, and the main structure in obtaining electricity from it is solar cells (SC) made of semiconductor material. The student will not be able to master the structure of SCs until he or she knows the rules of operation. The rule of operation of SC is based on the laws of physics. This is where a science teacher should be able to demonstrate his creativity as correct understanding is about imagination. In imagining correctly, the teacher must act as an artist with skillful creative development. [5,6]. The authors of the work presented a new method of teaching and learning, the "Electronic Swimming Method" (ESM), which is used to study the process of converting SC from light energy into electrical energy, where the student converts an imaginary small particle into an electron. It is recommended to dive into a solid body volume. It explains which electrons "travel" through the energy levels that represent the working motion of electrons, which electrons contribute to the formation of an electric current, and which electrons cannot do so. The result can be good if the physical processes are also explained by the objects in action, or by other actions.

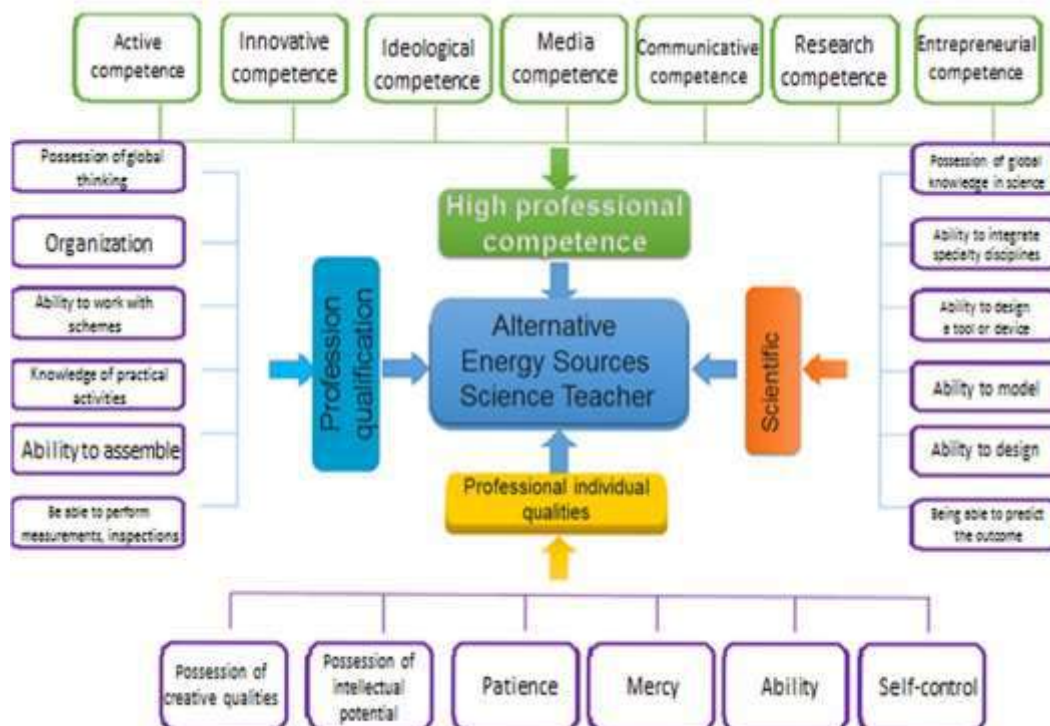
Figure 1. Types of alternative energy sources.



In the subsequent stages, the structure, materials, geometric shapes of solar elements and, of course, their strength in the transition to auxiliary

equipment, their long-term positive characteristics retention factors should be explained. In this case, the scientificity of the teacher is important (Figure 2).

Figure 2. Aspects showing the creativity of a subject teacher.





Because when using the source, which is the basis of the subject under study, explaining what solutions the scientists of which country have found, the concept of "cause and effect" is introduced, and the character of the researcher is formed. This, in turn, creates the ability to rationalize (AR). The advantage of the formation of AR in the student is that he can also overcome the continuity of work due to his ingenuity, when in the process of working with technical tools and equipment in production, they are likely to encounter many situations, such as breakdowns and failures.

The subject of solar energy, in addition to teaching the structure and working principle of solar cells, considers it permissible to acquaint them with additional equipment. For example, solar concentrators, cooling systems, measuring and control devices, inverters that convert alternating current into alternating current, energy distribution devices, and so on.

Unlike teachers of humanities, or educators, it is necessary to organize the teaching process in the training of engineering specialists in such a way that the quality of the results of the lesson allows the learner not only to understand theoretical knowledge at the end of the lesson, but also to work with tools. collection and experimentation skills should also be assessed as they emerge. This does not give the same result for all students. It is for these moments that the kindness and patience of the educator guarantees that the result will be good. Another important aspect is that the educator must be a good psychologist. However, in technical universities, pedagogy and psychology are sometimes taught for a few hours, and sometimes not at all. But it is not possible without taking into account the mental state of the learner. This is where the teacher is required to be skilled at sensing the student's mental state. Another quality not listed in Figure 2 above is a necessary quality for a teacher in a technical educational

institution. This is a precaution. Because most of the training involves studying machines and mechanisms that are dangerous to human life, such as electricity, heavy equipment, rotary gears, multiton presses. The student who attends the first session does not realize or understand that he or she is in danger. Therefore, the educator should not be limited to writing and explaining absolute theoretical formulas, it should become a basic law. It is worthwhile to link the nature of caution with media competence [7,8]. This is because the internet, which is considered a social network, has many multimedia movies, pictures, and instructions based on safety rules. In this way, moving ahead of their students shows that the teacher is highly competent. After all, today's young people are more likely to interact with information that is useless from the internet. Media competence is essential in finding training materials that are very useful for learning from this network, teaching and searching for ways to use them, and teaching them how to apply.

### EXPERIMENTAL VERIFICATION AND ANALYSIS OF RESULTS

In order to conduct experimental research to study how the teacher's response to the above requirements affects the level of mastery in the educational process, the subject "Alternative energy sources and devices based on them" was taken for students "Electronics and Microelectronics" majoring in Fergana Polytechnic Institute. Students in two parallel groups were assigned a teacher with two different experiences. The first teacher is a young specialist with three years of pedagogical experience, and the second is one of the authors of this article, a researcher who conducts research on pedagogical activities in technical schools. The results of the training and supervision are presented in Table 1.

**Table 1. The results of the experiment.**

No	Indicators	1-group	2- group
1.	The number of students	25	27
2.	Attendance after the first five sessions	17	27
3.	Attendance after the second five sessions	15	26
4.	Attendance after the third five sessions	13	27
5.	Assimilation rate in the current assessment (%)	13	25
6.	Assimilation rate in the mid-term assessment (%)	16	24
7.	Assimilation rate in the final assessment (%)	15	24
8.	The number of students who have developed a practical skill	1	19
9.	Number of students who have fully mastered (at an "excellent" grade)	1	12
	Total mastery index (%)	60	88,8



From the data in the table 1, it can be seen that conducting a lesson without enriching it creatively leads to a loss of interest in the student, or pupil, and a lack of enthusiasm for the lesson. As a result, mastery decreases sharply. It was found that another quality must be present in the teacher when conducting experiments. It is principle character of the teacher. It is important for the teacher to take a principled approach both in preparation for the lesson and in making lesson plans and passing them in the allotted hours. Because the result of this is directly visible in the attendance of students. Observations have found that the only practical skill is present in a student who has been interested in technology since childhood. So growth is almost non-existent. In fact, the current situation in some technical educational institutions has been confirmed. There was no decrease in attendance in group 2 students. When students' opinions are studied, it is explained that they had information about the teacher's qualities and level of knowledge before the lesson, and that the students were expecting and interested at the lesson. A student who was once unable to attend class explained the reason for being absent because of a family problem.

The most effective way to determine a student's level of knowledge of a topic covered is to ask him or her to share his or her understanding. Recently, in connection with the introduction of the transition to credit-modular education in educational institutions, a second experiment was conducted in a small master's group. The topics were distributed to 15 students in order to increase the level of independent preparation of master's students and the possibility of conducting classes in educational institutions. Then they were asked to prepare a report using the literature. They were asked to prepare a material in the form of a presentation and demonstrate their knowledge.

**Figure 3. A graph showing that the description of students' independent work is related to the database (level of knowledge).**

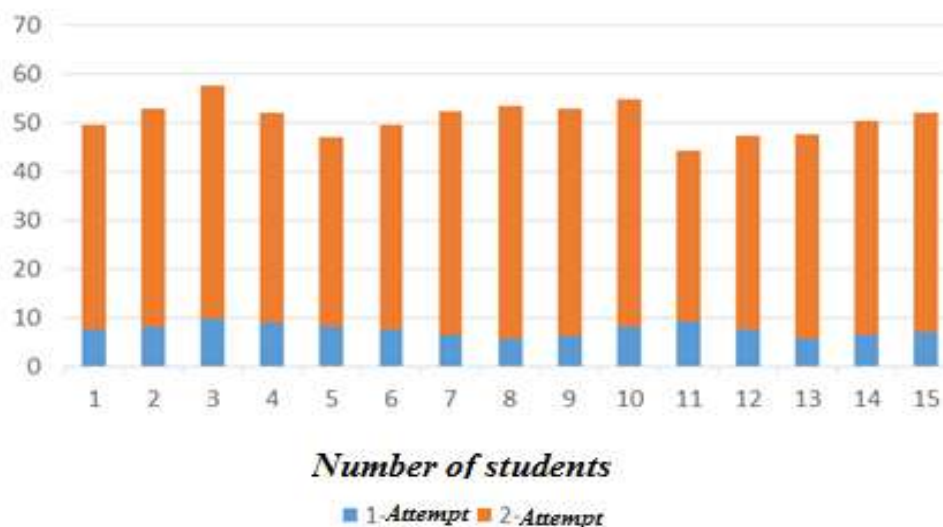




Figure 3 shows a graph of the duration of the lectures given by these 15 students as a result of their independent preparation. The blue columns 1 in Figure 3 (located at the bottom of the drawing) show the duration of the lectures they had prepared for the first time. Apparently, the duration of the lecture was on average 7-10 minutes, which was short, the information was incomplete and showed that the student did not know what else he could talk about. The teacher explained and pointed out the shortcomings. At the same time, the lack of use of the text of the lecture, the need to use not only Uzbek, but also literature in foreign languages (Russian and English), methods of using videos and pictures, diagrams posted on the Internet were taught.

During the speech, it was explained that there should not be unnecessary words in the speech, some words should not be repeated unreasonably several times, diction, intonation and emotional statements, the importance of designs in the presentation material. The second orange columns of Figure 3 (which form the upper part of the drawing) show the duration of the lectures prepared by these students on the basis of the teacher's instructions on the second topic. Apparently, the result shows a dramatic change for the better. This option evoked confidence in the speaker, a desire to throw new information into the audience's discussion, and a desire and aspiration to demonstrate that he was self-seeking.

## CONCLUSION

Research work on the level of creativity of teachers working in the system of professional education has confirmed the importance of this indicator in the training of young professionals. It was confirmed that the teacher's inquisitiveness, creative approach to their profession leads to the deepening of students' knowledge, and the ability to work with technical means, the formation of practical skills in them. According to the results of scientific research, the most important method: the development of teaching methods of special importance for students in technical institutions proved that new pedagogical technologies must be taught in ways that correspond to the nature of specific sciences. To do this, it is advisable to apply the methods of qualified and experienced professors, analyze their results and apply in practice which showed effective results. As a result of the individual approach to the student, it was found that they are able to increase their performance, express their opinions and explain to another listener, even through independent training.

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## **SOME ASPECTS OF DIAGNOSTICS OF OUT-OF-SOCIAL PNEUMONIA IN CHILDREN INDICATIONS FOR HOSPITALIZATION**

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### **ABSTRACT**

*Predisposing factors for the development of pneumonia in young children are perinatal pathology, congenital defects of the heart and other internal organs, rickets, atopic dermatitis, hypovitaminosis and deficiency conditions, including immunodeficiencies. We examined 116 patients aged 3 months and over. up to 3 years old who applied to a family clinic with community-acquired pneumonia. Patients studied complaints, anamnestic data, clinical symptoms, analyzed the results of laboratory and instrumental research methods and developed recommendations for hospitalization of sick children with acute pneumonia in the hospital. The article presents the results of observation of patients with community-acquired pneumonia and treatment on an outpatient basis, data from clinical, radiological and laboratory studies and indications for hospitalization. Thus, timely diagnostics, complex treatment community-acquired pneumonia on an outpatient basis and the development of recommendations for hospitalization in a hospital significantly improve the prognosis of community-acquired pneumonia.*

**KEY WORDS:** *pneumonia, diagnosis, treatment, patients, respiratory failure, hypovitaminosis.*

### **RELEVANCE**

Pneumonia is an acute infectious and inflammatory process that mainly affects the respiratory part of the lung tissue, clinically manifested by varying degrees of respiratory failure, and radiographically - by infiltrative changes in the lungs [1,3,5]. The presence of radiological signs is the "gold standard" of diagnosis, since it allows not to classify viral lesions of the lower respiratory tract as pneumonia (bronchitis, bronchiolitis), in which antibacterial treatment is not needed. According to the literature, the incidence of pneumonia is about 15–20 per 1000 children in the first three years of life per year and about 5–6 cases per 1000 children over 3 years of age [6,7].

Predisposing factors for the development of pneumonia in young children are perinatal pathology, congenital defects of the heart and other internal organs, rickets, atopic dermatitis, hypovitaminosis and deficiency conditions, including immunodeficiencies [2,4,8].

### **Objective of the study**

To determine the role of timely diagnosis, complex treatment of community-acquired pneumonia in young children on an outpatient basis and to develop recommendations for hospitalization.

### **MATERIALS AND RESEARCH METHODS**

We examined 116 patients aged from 3 months. up to 3 years old, who applied to the family polyclinic No. 2 of Samarkand with community-acquired pneumonia. Patients studied complaints, anamnestic data, clinical symptoms, analyzed the results of laboratory and instrumental research methods and developed recommendations for hospitalization of sick children with acute pneumonia in the hospital.

Clinical symptoms were the basis for the diagnosis of community-acquired pneumonia in children. In young children, signs of acute respiratory failure (ARF), intoxication came to the fore, and local physical changes in the lungs often appeared later. Therefore, if, upon examination, a child,



regardless of the level of body temperature and in the absence of obstruction, has an increase in breathing (60 per minute in children of the first months of life, 50 per minute in children 2-12 months, 40 per minute in children 1 year-4 years old); retraction of the intercostal space; moaning (grunting) breath; cyanosis of the nasolabial triangle; signs of toxicosis, the condition was assessed as severe with a high probability of the presence of community-acquired pneumonia. These patients were prescribed an antibiotic and referred to the hospital.

If the child does not have the signs indicated above, but has a temperature of 38 °C for more than 3 days, local physical signs of community-acquired pneumonia, and asymmetry of wheezing, then the presence of this disease should be assumed. These patients were recommended to undergo a complete blood count, chest x-ray, and if it was not possible, they were prescribed an antibiotic.

All patients with signs of respiratory failure were referred for inpatient treatment. If the children had a febrile temperature for 1-2 days in the absence of the above signs, they were monitored at home as a patient with acute respiratory disease (ARI).

In addition to clinical criteria, the diagnosis of pneumonia was confirmed by X-ray data. Children under three years old were most often hospitalized for constant monitoring of the condition and in order to avoid the development of complications.

Older children were left at home, provided that the parents strictly followed all the recommendations.

The main principles of antibiotic therapy for pneumonia were as follows:

- Antibiotics were prescribed immediately if the diagnosis was established or in case of a serious condition of the patient; if the diagnosis in a non-severe patient was in doubt, the decision was made after radiography;

- In uncomplicated pneumonia, preference was given to prescribing drugs orally, switching to parenteral administration when the course of the disease aggravated.

The indications for prescribing antibiotics in children with respiratory pathology were: severe intoxication, high body temperature for more than 3 days, clinical signs of pneumonia, early age of the child (first year of life), prolonged course of the inflammatory process. In most cases, the antibiotic was prescribed prior to knowledge of the causative agent. Therefore, the choice of the first drug was carried out empirically (by experience). This was the so-called starting empirically selected therapy.

Evaluating the effectiveness of the drugs administered to the patient is the only way to decide whether it makes sense to continue treatment with the empirically chosen drug or whether it should be

changed. With a good effect, already after 24-48 hours the temperature decreased, the general condition improved, the pneumonic changes decreased or, at least, did not increase (the number of wheezing may increase). In these cases, drugs were not substituted. If the therapy was started with an injectable form of an antibiotic, then it was replaced with an oral one. In most cases, minor pneumonia was treated with antibiotics for 4-6 days at home.

The lack of effect (preservation of temperature and an increase in pneumonic infiltration according to X-ray data) made it possible to exclude the reason that the doctor suggested when choosing a starting drug, and to prescribe an alternative scheme. The replacement or at least the addition of a new antibacterial agent was carried out after 36-48 hours (in case of extremely severe infections - after 24 hours) in the absence of a therapeutic effect.

In the treatment of pneumonia in children, three main groups of antibiotics were used: penicillin and semisynthetic penicillins (ampicillin, amoxicillin, amoxiclav, etc.), cephalosporins of various generations (cephalexin, cefuroxime, ceftriaxone, cefoperazone), macrolides (erythromycin and dr. ... In the absence of an effect during pneumonia, antibiotics of other groups and a combination of drugs of various groups, including those with sulfonamides or metronidazole, were used. For fungal pneumonia, fluconazole (Diflucan) or amphotericin B was used. Depending on the characteristics of the course of pneumonia in each case, the question of additional drugs was decided: expectorant, bronchodilator, antiallergic, vitamins, etc.

Bed rest was prescribed for the entire febrile period. Nutrition was prescribed according to age, which was necessarily complete. The volume of fluid per day for children under one year old, taking into account breast milk or milk formulas, was 140-150 ml / kg of body weight. One third of the daily volume of liquid was given in the form of glucose-salt solutions (rehydron, smecta, ORSA) or fruit and vegetable decoctions. Dietary restrictions (chemically, mechanically and thermally benign food) were determined depending on the appetite and the nature of the stool.

Antipyretic drugs were not systematically prescribed, as this could complicate the assessment of the effectiveness of antibiotic therapy. The exception was children with premonitory indications for temperature reduction (febrile convulsions). Fever was considered as a factor that stimulates the body's defenses. In our opinion, many bacteria and viruses die faster at elevated temperatures, against its background the body gives off a full-fledged immune response. Unreasonable and frequent prescription of drugs for any increase in temperature can lead to various complications.



With a painful or persistent cough in patients with pneumonia, mucoregulatory agents were widely used: facilitating the evacuation of sputum (expectorants) and thinning it (mucolytic) agents. Expectorants increase the secretion of the liquid component of sputum and improve its transport by increasing bronchial motility. When prescribing expectorants (bronchicum, "Doctor MOM"), they tried to ensure sufficient hydration (drinking), since the loss of water increases the viscosity of the sputum. We used medicines based on the infusion of marshmallow root with the addition of sodium benzoate, potassium iodide and ammonia-anise drops. The patients were prescribed expectorants.

Mucolytic agents contributed to the liquefaction of sputum by chemical action on the mucin (mucus) molecule. For diseases of the lower respiratory tract with the formation of thick viscous sputum, drugs containing acetylcysteine (ACC, mukomist, flumucil) were used. Considering that the derivatives of the alkaloid vazicin have a mucolytic effect, bromhexine, bisolvone, mucosalvan were prescribed, which reduce the viscosity of the secretion, restore mucociliary clearance, and stimulate the synthesis of endogenous surfactant.

Herbal infusions (plantain, nettle, mother and stepmother, Ipecacuanha root, anise fruit, licorice root, etc.) or dosage forms of them - eucabal, mukaltin, were also useful in the therapy of patients. In the acute period, microwave (5–7 sessions), inductothermia were prescribed; electrophoresis with 3% potassium iodide solution (10 sessions). After the temperature returned to normal, massage and exercise therapy were prescribed.

## CONCLUSIONS

Thus, timely diagnostics, complex treatment of community-acquired pneumonia on an outpatient basis and the development of recommendations for hospitalization in a hospital significantly improve the prognosis of community-acquired pneumonia.

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## THE IDEA OF THE VALUE OF TIME IN ENGLISH AND UZBEK PROVERBS

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### ABSTRACT

*Proverbs about time in non-fraternal English and Uzbek peoples have been studied in terms of meaning and their similarities have been analyzed.*

**KEYWORDS:** *value of time, initiative, exaggeration, original state, proverbs.*

At the video conference held by the head of our state on March 19, 2019, further attention to our youth, their involvement in culture, art, physical culture and sports, the formation of skills in the use of information technology in young people, emphasis was placed on the promotion of reading among the youth of our country, increasing women's employment. Therefore, 5 important initiatives put forward by the President emphasize these areas. It is no exaggeration to say that these efforts are based on the effective organization of leisure time of young people, to guide them in the right direction in the future.

If we look at the history of our literature, we can see that there are also works consisting of proverbs. One of them is "Zarbulmasal" by Muhammad Sharif Gulkhani. The work contains about 400 articles. In addition, Suleymanqul Roji's poem "Zarbulmasal" contains more than 400 poems. It is obvious that every representative of the Uzbek didactic literature has learned over time, created works and tried to pass them on to future generations. The value of time has been a hot topic for both non-fraternal nations, and of course, it has been reflected in these articles. Time is a precious gift. While we all know this, in most cases, it is only when the time is right that we realize the value of time and regret it. This is where the English quote the following. It's no use crying over spilt milk. That is, there is no point in shedding tears, and it will not return to its original state. The Uzbek proverb "The past cannot be undone, the dead can be raised" comes to mind. It is

good to know that our loved ones are alive and well, but it is a pity that we have lost them over time.

Time is money, say the English people. The peoples of Europe have made great strides in the economic and industrial spheres. Time management is one of the keys to a successful business. The wise Uzbek people also quote the proverb "You have time, you have cash." One can do a lot of useful and good deeds in a convenient time and provide financially for the society and one's family. In the joys and sorrows of life, it is as if time passes quickly and these moments turn into sweet dreams. But there are people who enjoy every moment of life, who do everything for the good. Our wise people quote the proverb "Happy people do not wait for time". A person who claims to be happy does not wait for the opportunity to be happy, on the contrary, he is on the move, creating happy moments for himself. "Happiness takes no account of time" proves the point made in this article in English. We know that the right words spoken at the right time can give us peace of mind. But even a sweet word spoken prematurely can hurt the heart. "Every fruit ripens on time," says our wise people. It is unthinkable to wait for mint in the bitter winter and white snow in the summer. This English article, "Everything is good in its season," confirms this idea. As everything is said to be beautiful in its season, the spring flowers, the white snow of winter, the delicious fruits of summer, and the autumn leaves look beautiful in time.

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## KNOWLEDGE ON SELF- MEDICATION AND ITS HEALTH IMPACTS AMONG ADULTS

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### ABSTRACT

Today's is very different from that of the past years with many inventions. Many things are inverted that make a lot of people to live in luxury. But along with these, in term of the health of the people nowadays, there are certain diseases that are quite making a name in the statistical data of health department. People are now suffering from the certain diseases throughout the world and many are practicing self medication to relieve symptoms of their health problems. The present study aimed to assess the knowledge on self medication and its health impacts among adults. **Methodology:** The Research Design adopted for the present study was nonexperimental descriptive design. This study was carried out in selected rural area Serumavilangai, Karaikal District. A total of 100 adults between 18-45 years of age were selected by using Purposive sampling technique for the present study. Self structured interview schedule was used to collect data from each participant. **Result:** The finding of present study showed that the maximum 68 % of adults had moderate knowledge on self medication and its impact, 29% of adults had inadequate knowledge and only 3% of adults had adequate knowledge on the self medication and its health impacts. The results indicated that there is a greater need to impart knowledge on ill effects of self medication to the public in order to reduce its health impacts. **Conclusions:** The present study concluded that educating with multiple audiovisual aids is required to arouse awareness among adults on ill effects of self medication on their health and to prevent development of complications like renal diseases, metabolic disorders, addition of drugs, anxiety, stress, etc.

**KEY WORDS:** Assess, Knowledge, Self Medication, Health Impacts, Adult

### INTRODUCTION

Generation today is very different from that of the past years. Many things are inverted that make a lot of people to live in luxury. But along with these, in term of the health of the people nowadays, there are certain diseases that are quite making a name in the statistical data of health department. People are

now suffering from the certain diseases like diabetes, hypertension, asthma, renal disorders, cirrhosis of liver, gastritis, ulcer, GERD, vomiting, diarrhoea, fever, common cold and many other due to sedentary lifestyle, stress and unhygienic measures, food pattern, lack of healthy activities, exercise etc... Every day, throughout the world, many are practicing



self medication to relieve symptoms of their health problems. The most widely self medicated substances are over the counter drugs used to treat common health issues at home, as well as dietary supplements. These do not require a doctor's prescription to uptime and in some countries are available in supermarkets and convenience stores. Self-medication involves acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines to treat similar or same problem at present, sharing medicines with relatives or members of one's social circle or using leftover medicines stored at home. It is commonly prevailing in developing countries like India due to easy availability of wide range of drugs coupled with inadequate health services result in increased proportion of drugs used as self medication. It can lead to irrational use of drugs, wastage of resources, and increased resistance of pathogens in addition to serious health hazards such as adverse drug reaction and prolonged morbidity. Economic, political, and cultural factors have stimulated a constant increase in self-medication worldwide, turning this practice into a major public health problem.

### Statement

A study to assess the knowledge on self medication and its health impacts among adults in selected rural area, Karaikal

### Objectives

- To assess the knowledge on self medication and its health impacts among adults in selected rural area.
- To associate level of knowledge with selected demographic variables of adults.

### RESEARCH METHODOLOGY

The Research Design adopted for the present study was nonexperimental descriptive design. This study was carried out in selected rural area Serumavilangai, Karaikal District. A total of 100 adults between 18-45 years of age were selected by using Purposive sampling technique for the present study. Self structured interview schedule was used to collect data from each participant. Tools were developed by the investigator based on literature review and experts opinion. It consisted of two parts. Section A consisted of 10 items related to demographic variables of adults such as age in years, sex, educational status, occupation, monthly family income, religion, marital status, Presence of associated medical condition, previous history of self medication & Source of information obtained on ill effects of self medication. Section B of the tool consisted of 25 items related to knowledge on Self-

Medication and its Health Impacts. It included the questions on meaning, reasons for self medication, benefits, disadvantage, common drugs used for self medication, impact of self medication on health and its prevention. After self introduction, the investigator explained the purpose of the study to the samples. The confidentiality of their responses was assured and their written consent was taken prior to the study. The self structured interview schedule was administered to each adult who met the inclusive criteria. It took about 15-20 minutes to collect information from each adult. Every day the data was collected from 8-10 study participants. The descriptive statistical tests percentage, mean and standard deviation were used for assessing knowledge level and Chi-square test was used to find out the association between the demographic variables of adults with their knowledge on self medication and its health impacts.

### RESULTS

The major findings of the study revealed that regarding the age of the study participants, the majority of adults 26 (26%) were between the age group 41-45 years and only 16 (16%) adults were between the age group of 36-40 years. Greater number of study participants 58 (58%) were males and lesser number of adults 42 (42%) were females. The higher percentage of adults 36% (36) had primary education and only 5 (5%) were illiterate. The maximum number of adults 55 (55%) were working in private concerns and only one (1%) were working as a government employee and another only one (1%) were self employed and doing business. The majority 33 (33%) had above Rs.15,000/- as monthly family income and only 4 (4%) had between Rs.10,000/- to Rs.15,000/- . The higher number of adults 59 (59%) were belonged to Hindu religion, 25 (25%) were belonged to Christianity and 16 (16%) were belonged Muslims. The greater number of adults 58 (58%) were married and the less number of adults 42 (42%) were unmarried. Regarding the source of getting information on self medication and its impact on health, most of the adults 46 (46%) were obtaining information from Health care professionals and only 13 (13%) were getting from Peer groups.

The results of the present study revealed that the majority of adults 68% (68) had moderate knowledge, 29% (29) had inadequate knowledge and only 3% (3) had adequate knowledge on self medication and its health impacts. The result of the present study revealed that there was a significant association between level of knowledge on self medication & its health impact only with demographic variables, age ( $\chi^2 = 13.529$ ) and



occupation ( $\chi^2 = 68.8515$ ) of adults and there was no significant association between level of knowledge with the other demographic variables such as sex, educational status, religion, monthly family income, marital status, presence of associated medical conditions, previous history of self medication and source of obtaining information.

## DISCUSSION

The result of the present study revealed that the majority of adults 68% (68) had moderate knowledge, 29% (29) had inadequate knowledge and only 3% (3) had adequate knowledge on self medication and its health impacts. This was similar to the results of a study to determine the perception and level of awareness regarding OTC medications, among the general public in Malaysia conducted by **Mohamed Irfadh Mohamed Azhar et al (2020)** which revealed that about 82% of the respondents stated that their level of knowledge regarding OTC medications was moderate to low. The result of various studies also reported that the source of drug information was past experience with drugs, followed by relatives/ friends, pharmacists, advertisements, internet, etc.

The result of the present study revealed that there was a significant association between level of knowledge on self medication & its health impact with demographic variables age and occupation of adults. This was correspondence with the findings of the study conducted by **Atmadani, R.N., Nkoka, O., Yunita, S.L. et al. (2020)** on Self-medication and knowledge among pregnant women attending primary healthcare services in Malang, Indonesia reported that the knowledge on self medication was low in younger age, illiterate, with less education, low income status and unemployed when compared to older people, high education and having occupation. Additionally the result of the present study was also supported by the study conducted by **Selvaraj K., Kumar S. G., & Ramalingam A. (2014)** on prevalence of self-medication practices and its associated factors showed that sex, occupation

and age factors of the subjects were found to be associated with self-medication. Males aged >40 years and involving in moderate level activity of occupation, were found to be significantly associated with higher self-medication usage. This revealed that the age, educational status and occupational status influence the knowledge and self medication practices of the adults.

## CONCLUSION

The result of the present study revealed that 29% (29) had inadequate knowledge. Most adults commonly used to take self medication for minor illnesses or for chronic illnesses due to ignorance and carelessness. Self medications either for a shorter or longer duration can produce major impact on physical and psychological conditions of human beings. The present study concluded that educating with multiple audiovisual aids is required to arouse awareness among adults on ill effects of self medication on their health and to prevent development of complications like renal diseases, metabolic disorders, addition of drugs, anxiety, stress, etc.

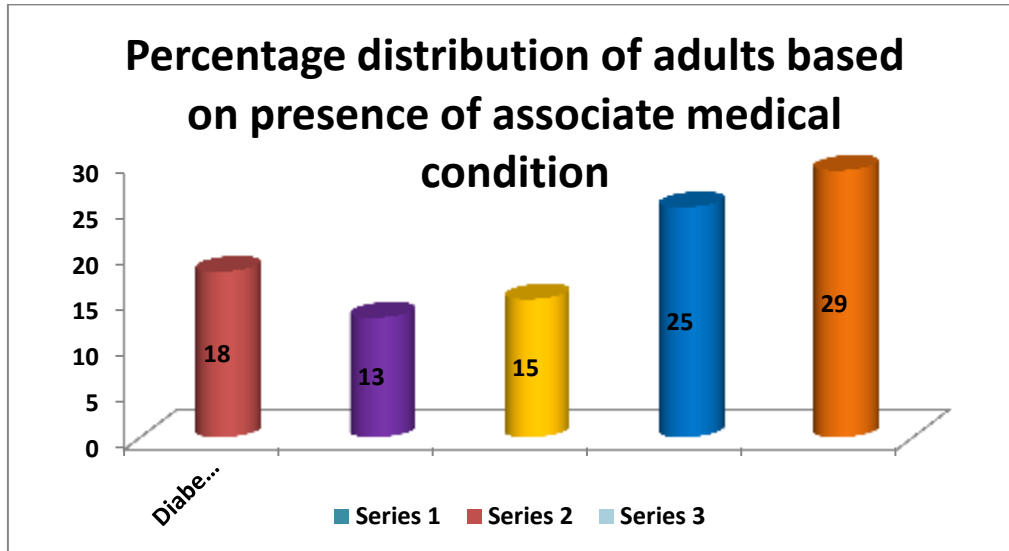
## Recommendations

The present study recommends the following:

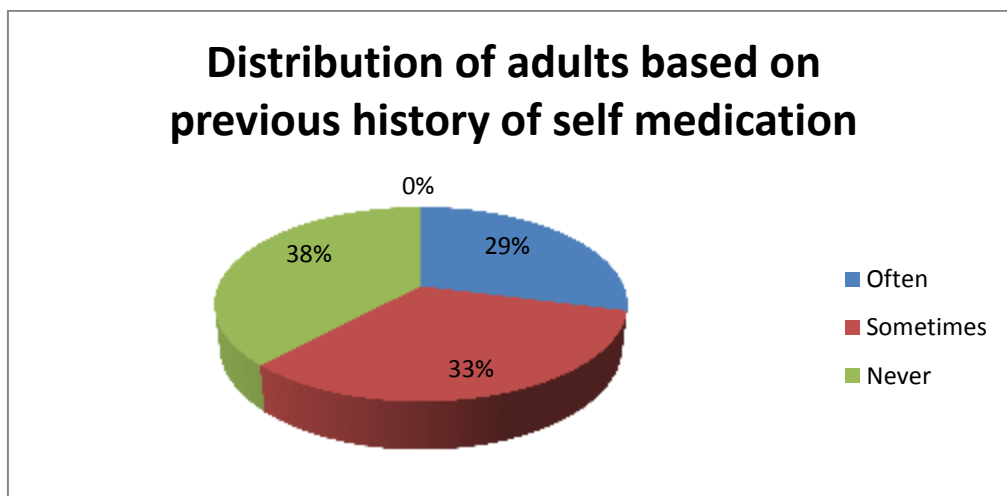
- A similar study can be conducted in different settings with large samples.
- A comparative study can be conducted among adults living in rural and urban areas
- A study to assess the pattern and determinants of self medication among adults can be carried out.
- A similar study can be conducted to find the physical, psychosocial impacts of self medication among adults.
- A Planned teaching programme of prevention of self medication and its health impacts can be carried out among adults in rural areas.



**FIGURES**



**Fig. 1: Distribution of adults based on Presence of Associate Medical Condition**



**Fig. 2: Distribution of adults according to the Previous History of Self Medication**

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# A STUDY ON THE CONSUMER BEHAVIOUR TOWARDS ELECTRONIC GOODS WITH SPECIAL REFERENCE TO COIMBATORE CITY

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## ABSTRACT

*The consumers have to consume various products in their day-to-day life. The usage of product depends upon their needs and wants. The varieties of products variable in market force the consumer to select the product that every initial stage. The selection and purchase of the products depend on the different behaviour over time, variability of information from various sources, their preference to the particular product, their utility etc. A study on consumer behaviour conducted in Coimbatore helps the firm to provide valuable information and guidelines on new technological development.*

**KEY WORDS:** *Electronic goods, Consumer behaviour, Entertainment, Consumers satisfaction.*

## INTRODUCTION

Consumers have different tastes, likes, dislikes and adopt different pattern while making purchase of articles. Moreover, today world is operated in a rapidly change in consumers change and preferences. To meet these fast changes a firm has to constantly engage in innovations and understand the consumers need and wants then and there. Consumer behavior aspects including frequency of purchase, decision or brands, buying motives, shopping behaviour of consumer and utility of the products provide scope for the manufacturers to understand the taste and preferences of the consumers and accordingly used enable them to manufacture articles to consumers satisfaction.

## STATEMENT OF THE PROBLEM

Electronic goods are one of the common products used by consumers. An understanding of the purchases behaviour of a consumer is an essential aspect as it reflects the influence of brands, purchase timing, buyer and consumer type on the purchase of a particular durable. This insight helps the company to take steps to maintain loyalty of current customer and also attract

new customers. Therefore, a study in Coimbatore is necessary to improve sale of consumer durable in rural market in the light of the increase stability of the people and changing marketing environment.

## NEED OF THE STUDY

In today's market there is a lot of competition in every sectors especially in electronic goods it is very high. In this way there is a higher on the companies to know their consumers in better way. Once the company understands the requirement of the consumer they can create a plan of action to complete successfully.

## OBJECTIVES OF A STUDY

- To know socio economic profile to the consumer.
- To understand the brand preference of the consumer
- To analyze the consumer behaviour towards various electronic goods.

## RESEARCH METHODOLOGY

The data for the purpose of the present study have



been collected through primary and secondary data. Primary data has been collected through structured questionnaire. The sources of secondary data include published data from books, journals, periodicals, brochures, reports etc.

**Sample size:** A total of 200 respondents residing in Coimbatore have been taken for taken for sample.

**Sampling procedure:** Convenience sampling technique was followed for collecting response from the respondents.

**Tools for analysis:** chi-square test, simple percentage analysis, rank analysis and weighted average method.

### SOURCES OF DATA

#### Primary data:

The primary data was collected freshly and through specially designed questionnaire.

#### Secondary data:

The secondary data are those which have already collected by some other person and it was collected from websites and books.

### LIMITATIONS OF THE STUDY

- The study was collected within the Coimbatore city.
- The study was conducted within a

limited period of time.

- Belief of the customer may change according to a period of time.
- The sample size is limited to 200.

### REVIEW AND LITERATURE

- **Abdul Brosekhan and Muthu Velayutham (2010)** in their joint study on consumers buying behaviour towards selected home appliance products have made an attempt to analyze the consumer buying behaviour towards selected home appliance products.
- **Krishna Kumar (2011)** in his study on consumer behaviour towards electronic goods with reference to occupational factors a study in cuddalore town has opined that, behaviour with the increasing disposable income population, their perception, a consumption of electronic goods and other products is increasing.
- **Manju (2012)** a study on consumer's satisfaction towards service quality of organized data. This research was collected via sample survey based on descriptive study

### ANALYSIS AND INTERPRETATION

#### Simple percentage analysis: Age:

Age Groups	No. of respondents	Percentage
Below 20	34	17
21-30 years	91	45.5
31-40 years	40	20
Above 40 years	35	17.5
<b>Total</b>	<b>200</b>	<b>100</b>

Sources of data: Primary data

#### Interpretation

The above table shows that, 17% of the respondents are in the age group of below 20 years, 45.5% of the respondents are in the age group of 21-30 years, 20% of the respondents are in the age group of 31-40 years, 17.5% of the respondents are in the age group of above 40 years.



### NO.OF.MEMBERS IN FAMILY

No. of. Members	No. of. respondents	Percentage
Below 2 members	3	1.5
2-3 members	50	25
3-4 members	82	41
Above 4 members	65	32.5
<b>Total</b>	<b>200</b>	<b>100</b>

Sources of data: Primary data

#### Interpretation

The above table shows that 1.5% of the respondents are below 2 members in family, 25% of the respondents are 2-3 members in family, 41% of the

respondents are 3-4 respondents in family, 32.5% of the respondents are above 4 members in family.

### EDUCATIONAL QUALIFICATION

Educational Qualification	No. of. Respondents	Percentage
Illiterate	2	1
School	22	11
Diploma level	28	14
Under graduation	148	74
<b>Total</b>	<b>200</b>	<b>100</b>

Sources of data: Primary data

#### Interpretation

The above table shows that 1% of the respondents are illiterate, 11% of the respondents are school, 14% of

the respondents are diploma level, and 74% of the respondents are under graduation.

### MONTHLY INCOME

Monthly income	No. of. respondents	Percentage
Less than 10,000	49	24.5
10,001-20,000	45	22.5
20,001-30,000	47	23.5
Above 30,000	59	29.5
<b>Total</b>	<b>200</b>	<b>100</b>

Sources of data: primary data

#### Interpretation

The above table shows that 24.5% of the respondents of the monthly income is less than 10,000, 22.5% of the respondents of the monthly income is

from 10,001-20,000, 23.5% of the respondents of the monthly income is 20,001-30,000, 29.5% of the respondents of the monthly income is above 30,000.

### BRAND PREFERENCE

Brand Name	No. of. Respondents	Percentage
Usha	23	11.5
Philips	102	51
Crompton greaves	43	21.5
Havells	32	16
<b>Total</b>	<b>200</b>	<b>100</b>

Sources of data: primary data



**Interpretation**

The above table shows that 11.5% of the respondents use usha brand, 51% of the respondents use

Philips, 21.5% of the respondents use Crompton greaves, 16% of the respondents use Havells.

**BRAND NOTICE**

Brand Notice	No. of Respondents	Percentage
Quality	133	66.5
Price	30	15
Endorsing celebrity	18	9
Quantity	19	9.5
Total	200	100

Sources of data: Primary data

**Interpretation**

The above table shows that 66.5% of respondents notice quality, 15% of the respondents notice price, 9% of the respondents notice endorsing celebrity, 9.5% of the respondents notice quantity.

**CHI-SQUARE ANALYSIS**

**Relationship between residential area and electronic products purchased by the respondents**

Residential area	Electronic products purchased					Total
	Television	Laptop	Air conditioners	Lights	others	
Rural	11	12	5	13	8	49
Urban	16	29	26	32	9	112
Semi-rural	7	4	3	11	1	26
Semi-urban	3	3	4	2	1	13
<b>Total</b>	37	48	38	58	19	200

To find out the relationship between the residential area and electronic products purchased by the respondents, chi-square test is used and result is given below.

residential area and electronic products purchased by the respondents

**Alternative hypothesis**

There is significant difference between the residential area and electronic products purchased by the respondents.

**Null Hypothesis**

There is no significant difference between the

Person chi-square		
Table value	Df	P value
14.470 <sup>a</sup>	12	0.272

Sources of data: primary data

**Interpretation**

The above table shows that the P value 0.272 is higher than the 0.05 hence the null hypothesis is accepted. Hence, there is no significant difference between the residential area and electronic products purchased by the respondents.



**WEIGHTED AVERAGE METHOD**

Factors	1(4)	2(3)	3(2)	4(1)	Total	Mean score
Price	97	73	20	10	200	3.29
	388	219	40	10	657	
Brand	82	85	29	4	200	3.23
	328	255	58	4	645	
Design	79	75	41	5	200	3.14
	316	225	82	5	628	
Quality	81	82	32	5	200	3.20
	324	246	64	5	639	
Features	71	75	40	14	200	3.02
	284	225	80	14	603	
User-friendly	75	79	41	5	200	3.12
	300	237	82	5	624	
Quantity	78	75	33	14	200	3.09
	312	225	66	14	617	

This above table shows that the respondents are very satisfied, satisfied, least satisfied and normal according to the following factors.

**RANK ANALYSIS**

Services	1(3)	2(2)	3(1)	Total score	Rank
Cash on delivery	122	65	13	200	<b>I</b>
	366	130	13	509	
EMI option	33	99	68	200	<b>IV</b>
	99	198	68	365	
Free shipping	98	65	37	200	<b>II</b>
	294	130	37	461	
Personal information policy	64	86	50	200	<b>III</b>
	192	172	50	414	

From the above table, it inferred that

- 1) The respondents have ranked **CASH ON DELIVERY** as **I** among the services.
- 2) The respondents have ranked **FREE SHIPPING** as **II** among the services.
- 3) The respondents have ranked **PERSONAL INFORMATION POLICY** as **III** among the services.
- 4) The respondents have marked **EMI OPTION** as **IV** among the services.

quality, preference and decision making. However it is evident that the present approaches to draw the attention of customers are not adequate. This study revealed that the customers have awareness on the electronic goods and most of the goods have become necessities and entertainment. The advertisement in rural area needs to be improved further. The majority of the respondents recommended to others about television. Philips audios, Sony CD/DVD player, HCL computer.

**CONCLUSION**

Despite the basic characteristics of consumers the behaviour pattern of consumers are more or less similar to each other, particularly in the aspects like

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## COMMUNICATIVE COMPETENCE AS A FACTOR OF PROFESSIONAL SUCCESS

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### ABSTRACT

*The key competence of professional communication of a specialist of any profile is communicative competence - communication skills in professional situations. A modern specialist solves communication problems, using a foreign language as a means within the framework of his professional competence. Therefore, such forms of professional communication as negotiation, business correspondence, business conversation by phone, meetings and press conferences, negotiations and presentations, as well as everyday communication with foreign specialists, require serious special training. In the formation of communicative competence, the defining approaches are communicative and personality-oriented, which are aimed at the gradual formation of a culture of language communication among students.*

**KEYWORDS:** *competence, communication skills, communication tasks, communication skills in professional situations, means of communication, communicative approach, personality-oriented approach.*

### DISCUSSION

Global changes in the political, economic and cultural spheres of society have a significant impact on the training of specialists in various industries. Modern society requires a young specialist to be ready to solve problems of theoretical and practical significance, subsequent professional and career growth, competitiveness in the labor market.

These trends make it necessary to optimize the process of training professionally competent specialists and to form new views on the goals of learning and the quality of education.

Competence is the ability and readiness of a person to perform an activity, which consists in understanding the essence of the tasks being solved and the problems being solved, in the active possession of the best achievements, in the ability to select methods of action that are adequate to the specific conditions of place and time, in a sense of responsibility for the results [4]. It is assumed that a successful young specialist has a number of professionally oriented competencies, the formation of which constitutes the value-semantic sphere of the subjects of the educational process at the university. The formation of competence allows achieving high

quality indicators of learning, increases the independence of students, significantly affects the formation of such personality qualities as responsibility, purposefulness, striving for improvement and professionalism. Based on this, professional competence is the ability of an individual to solve professional problems and tasks that arise in real situations of professional activity, using knowledge, professional and life experience, values and inclinations. However, the formation of professional competence cannot be limited only by the means of special subjects, since they do not provide the development of some competencies, for example, communicative, intercultural and others. In this regard, it is necessary to purposefully use the means and possibilities of a foreign language in the professional training of a specialist in order to form his communicative competence, as a necessary component of the global strategy of personal and professional formation and development of an individual.

In the field of professional activity, a lot depends on the ability to realize oneself through communication: establish business relations, make contact and leave it, communicate or explain your



thoughts and suggestions; to adequately understand their colleagues, managers and subordinates, constructively resolve tension or conflict. Therefore, a university graduate must have a high level of communicative competence, which would allow him to freely use a foreign language for the implementation of current professional tasks, future advancement and level of achievement.

Numerous studies of domestic scientists have shown that the personal orientation of the educational process, which implies close interaction between the teacher and the student, stimulates the formation of students' professional and active competence. Thus, there is a need to provide new pedagogical conditions that contribute to the development and maintenance of future specialists' persistent interest in learning foreign languages, in other words, to make professionally oriented changes in teaching a foreign language in a non-linguistic university. Professionally oriented change assumes that the process of teaching a foreign language should go in accordance with the program of special disciplines and include elements of professional activity, professional education and situations of professional communication [3]. This contributes to an increase in the level of students' motivation to learn foreign languages, and, consequently, the effectiveness of learning increases. Realizing that knowledge and qualifications are becoming priority values in human life in the information society, a modern specialist should strive to keep abreast of the development of his professional field in world practice, and for this it is not always enough to know information in his native language. Hence the increasing importance of teaching a foreign language and the formation of communicative competence [1].

The key competence of the professional competency of a specialist of any profile is communicative competence - communication skills in professional situations: the formation of such professional and business qualities as responsibility, hard work, initiative, creativity, flexibility of thinking when choosing work methods, enthusiasm, self-control and social activity. Therefore, solving a communicative problem with the help of a foreign language, a modern specialist cannot be content with a set of speech stamps, but must be able to listen and understand the interlocutor, express his position reasonably, prove or refute this or that fact, while forming his ideas clearly and logically. The specialist solves communication problems within the framework of his professional competence, using a foreign language as a means. Such forms of intercultural professional communication as correspondence, business conversations on the phone, meetings and press conferences, negotiations and presentations, as well as everyday

communication with foreign colleagues, require very serious special training.

It should be noted that the formation of communicative competence cannot be carried out without the presence of a socio-cultural component, since communication in a foreign language occurs, as a rule, in the context of intercultural communication. The expansion of interaction between cultures and peoples makes the issue of cultural differences especially relevant. It becomes important to be able to identify the cultural characteristics of peoples in order to understand each other and facilitate successful communication. It follows from this that it is necessary to purposefully learn effective intercultural communication. This means that in the context of teaching a foreign language, it is necessary to acquaint students with the culture of other nations, their customs, traditions and norms of behavior. These elements in the learning process help prepare students for effective international contacts at the level of everyday interpersonal communication and form practical skills that allow them to freely understand representatives of other cultures.

In the formation of communicative competence, the determining approaches are communicative and personality-oriented technologies. The communicative approach is focused on the personality of trainees, allows you to create a motivational background and develop the necessary skills for mastering a foreign language both in a relatively short period of classes and for further improvement. The communicative approach is a strategy that simulates communication, aimed at creating a technological and linguistic readiness for communication, at conscious comprehension of the material and the ability with it, as well as awareness of the requirements for effective speech [2]. Personally-oriented learning ensures the development and self-development of the personality of students, based on the identification of their individual abilities, relying on their abilities, inclinations, interests, value orientations, relying on their subjective experience and provides an opportunity to be realized in educational activities. It follows that the organization of the educational process, methodological approaches to the use of the material, the choice of exercises and tasks should be refracted through the prism of the student's personality, his needs, motives, activity, intelligence, individual and psychological characteristics and the level of basic training.

So, communicative and personality-oriented technologies used in the learning process are aimed at the gradual formation of a culture of understanding and a culture of language communication among students; focused on working on oral and written speech, reading, based on their relationship, taking



into account the specific capabilities of each type of speech activity. The preparation process begins with the mastering by students of initial knowledge and skills within the framework of a foreign language, phonetic and grammatical structure, rules and the most used lexical units. And already at this stage, you can actively use the communicative method, which is aimed at developing communication skills in everyday communication: the ability to meet, introduce yourself, apologize, start and end a conversation, change the topic of the conversation, communicate and request information. Training takes place on the material, which includes a wide range of non-specialized vocabulary (everyday and general cognitive), as well as business situations, which allows you to study the basic vocabulary of the common language and terminology necessary for conducting a conversation, business negotiations, concluding contracts with foreign partners. At this stage, great attention is paid to grammar, as it is the basis for communication skills.

On the basis of initial knowledge, the formation of professional foreign language communication skills begins. The main condition at this stage of training is a constant communicative orientation towards oral speech within the framework of specific speech situations in the educational and scientific sphere of activity, which naturally contributes to the transition to the formation of correct communication skills in a foreign language both in the socio-cultural and professional-economic spheres. Students form a dictionary of economic terms and a block of professionally oriented activities. Oral communication is carried out from monologue to dialogue, and, conversely, using tasks and games of a problem-seeking nature. At this stage, serious attention is paid to improving the skills of written professionally oriented speech. In addition, a certain time is allotted for the study of aspects of the culture of the countries of the target language, acquaintance with etiquette and business etiquette, since the future specialist should easily navigate the multicultural world. This is easily accomplished within the framework of role-playing games, business situations and discussions, when many life situations that introduce students to the realities of foreign countries are played out in the classroom, which helps to overcome the psychological barrier that arises in a person in a new, unfamiliar situation, which involves active actions and communicative competence[5].

Thus, the communicative approach in teaching students a foreign language contributes to the formation of their communicative competence as a key professional competence that affects their worldview, value system and ability to think. Gradually mastering the basics of communicative

competence, students eventually achieve the highest degree of autonomy in organizing their future activities, thereby ensuring themselves the first step to success.

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# FACTORS OF FORMATION OF PROFESSIONAL COMMUNICATIVE COMPETENCE IN THE STRUCTURE OF THE EDUCATIONAL PROCESS OF THE UNIVERSITY

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## ABSTRACT

*This article examines the factors of the formation of professional communicative competence of the future teacher. The concept of professional communication is revealed and the analysis of the concept of professional communicative competence is given.*

**KEYWORDS:** *competence, professional communication, professional and communicative competence, professional orientation*

## DISCUSSION

Pedagogy recognizes the fact that the formation of a personality is a process of its development through communication and activity-based association. It should be noted that the formation of a professional communicative competence of a specialist is not yet a fully investigated problem. In our time, the issue of educating the personality of a professional is rather acute.

Since the subject of this study is the process of forming the communicative competence of a future specialist, it should be clarified what is the meaning of the concept of "formation". This study focuses on the definition of L.D. Stolyarenko that the formation of a personality is the process of changing it in the course of interaction with reality, the appearance of physical and socio-psychological new formations in the structure of the personality [1].

It is generally accepted that the category of "communicative competence" is an interdisciplinary phenomenon, reflecting the achievements of various areas of linguistics, pedagogy, psychology, philosophy and other sciences.

The terms "communicative" and "competence" in combination with "communicative competence" were one of the first to be used by the American linguist Del Himes [2]. Emphasizing situational conditioning, which entails certain errors, reservations or mistakes in a person's speech, and, thereby, pointing out the inadequacy of the concept of "ideal communicant", D. Himes introduces the concept of "communicative competence", which refers to a person's ability to flexibly, use language accurately and quickly in changing social situations.

D.Himes's idea is that the communicant should have greater skills and abilities than just linguistic competence, i.e. the communicant needs to know how a particular language is used by other representatives of the linguistic community.

To conduct full-fledged communication, D. Himes believes, it is not enough to know the language, its system; one must also know how to use it depending on the social context, i.e. socio-cultural conditions for the implementation of the communicative act [2].

D.Himes' idea was developed in the works of other researchers. For example, in the United States more than 20 years ago, many scientists paid



attention to the development of the communicative competence of students studying foreign languages. In particular, S. Savington initially defines this concept as the ability to function in a real communicative situation [3]. By a real communicative situation, the author means a dynamically changing environment.

Let's dwell in more detail on the meaning of the concept of "competence". The term "competence" means the ability to perform a certain type of activity. And by communicative competence we mean the ability to work together with other people, knowledge of psychology and ethics; the ability to accurately perceive another person [4].

### **PROFESSIONAL COMMUNICATION CONCEPT**

Based on the fact that the training of any specialist is carried out in the process of activity, and the activity implies communication between those who carry it out, and at the same time communication acts as a means of forming a specialist in a specific field, his culture in the process of professional education, namely, when studying at a university foreign language, it is necessary to identify the essence of the concept of professional communication.

Initially, communication is a basic category of social psychology and is defined as the interaction of two or more people, which consists in the exchange of cognitive, emotional and evaluative information.

Antoine de Saint Exupery called human communication the greatest luxury in the world. But, according to V.A. Kan-Kalik, in one case, is a luxury, in the other - a professional necessity.

V.A.Kan-Kalik emphasizes that in the learning process, three main tasks are solved: teaching, educational, developmental, and teaching allows you to provide real psychological contact with students; form a positive motivation for learning; create a psychological environment for collective cognitive search and joint reflections; when solving educational problems with the help of communication, educational and pedagogical relations are established, psychological contact between the teacher and students, which contributes to successful educational activities; the cognitive orientation of the personality is formed. When solving developmental tasks through communication, psychological situations are created that stimulate self-education and self-upbringing of the individual [5]. Thus, we can say that communication is a driving factor in expanding the horizons of the individual, his moral and intellectual education.

Of interest is the position of O.V. Leshner, who emphasizes in her dissertation research on the problem of intersocial education the idea that communication acts as a means of interaction between teachers and students; a means of forming the status of a future specialist; specialist training factor; means of intersocial education of students; information exchange process; a means of meeting the spiritual needs of students; a means of understanding each other by the participants in the pedagogical process.

### **ANALYSIS OF THE CONCEPT OF PROFESSIONAL COMMUNICATIVE COMPETENCE**

The rapid development of communicative linguistics contributed to the emergence of interdisciplinary sciences - sociolinguistics, psycholinguistics and led to the development of new areas - linguistic pragmatics, the theory of speech acts, discourse analysis.

"Communication" has replaced structuralism in linguistics, behaviorism in psychology, a consciously practical method of teaching foreign languages in methodology. To date, "communicative competence" as an interdisciplinary phenomenon reflects the achievements of various areas of linguistics, pedagogy, sociology, philosophy.

In connection with the changes taking place in society, science and technology, the issues of professional training of specialists in various fields of science and industry require constant attention. Thinking about vocational education, it should be noted that its main goal is to train a qualified specialist. It should be emphasized that in the process of professional training of a future specialist, the formation of his professional competence is of paramount importance. Let us clarify that in scientific research there are two concepts that are close, but do not coincide in content: competence, competency, which are directly related to the professional activity of any specialist. Competence is defined in the dictionary of foreign words as the terms of reference of any body or official. Analysis of pedagogical literature has shown that competence is interpreted as awareness, erudition, possession of knowledge that makes it possible to judge something.

Professional communicative competence is understood as a set of professional knowledge, skills, as well as the ability to perform professional activities.

Often, within the framework of a particular professional activity, competency and qualifications are considered as related concepts.

Based on research materials from foreign and domestic authors, it can be noted that the



concepts of "competence" and "qualifications" are used as synonyms. In their understanding, qualification reflects the degree of personality development in the social sphere of its life, determines its social status and has economic indicators, which is its hallmark.

The vocabulary meaning of the concept "qualification" (from Latin *qualis* - which is in quality and *facio* - I do) is "a socio-economic characteristic of the level of development of the abilities of an employee to perform his labor functions." The content of the qualification includes "the amount of theoretical knowledge and practical skills."

If we talk about any professional activity, then, unlike the term "qualifications", competence, in addition to purely professional knowledge and skills, also contains such qualities as initiative, cooperation, the ability to work in a group, communication skills, the ability to learn, evaluate, think logically, select and use information.

### **PROBLEMS OF THE FORMATION OF FOREIGN LANGUAGE PROFESSIONAL COMMUNICATIVE COMPETENCE**

Foreign and Russian researchers pay great attention to the problems of foreign language professional communicative competence of a specialist. The work of many researchers is devoted to the issues of professional development: K.M. Durai-Novakova, E.F. Zeera, G.M. Kodzaspirova, V.G. Ryndak, V.A. Slastenin, A.I. Shcherbakova and others. For example, L.L. Zelinskaya believes that professional competence is determined by the level of corresponding professional education, experience and individual abilities of a person, his motivated desire for continuous self-education and self-improvement, his creative and responsible attitude to work. According to the named author, the components of the structural chain "literacy - education - professional competence - culture - mentality" reflect the structure of personality formation and are interdependent and complementary. According to the above-named author, education, professional training, professional experience and professionalism are the main levels of professional competence of the subject of activity [6]. In the process of professional development of a personality, a system of professionally important qualities is formed.

Professional communication, as a special case of communication as such, is the process of establishing and developing contacts between people, which is generated by the needs of joint activities.

Foreign researchers, considering the process of forming professional communicative competence, distinguish the following approaches: communicative, cognitive, contextual, cognitive-academic and problem solving method. For example, D. Wilkins writes that the communicative approach to a foreign language is formulated as follows: to develop the ability to use a foreign language effectively for practical communication [7]. F. Hill considers the process of teaching and learning as a communicative process. This approach is defined by D. Phillips as an attempt to avoid formal methods, consisting of grammar and translations, and move to approaches in which the student uses language as a means of communication [8].

The contextual approach is considered by T. Hutchinson and A. Waters primarily from the standpoint of professional content in the study of a foreign language, which is an important motivating factor; at the same time, the tasks performed by students should be related to solving the problems of professional activity in a foreign language. Consequently, all the material to be studied should be selected based on a contextual approach to teaching a foreign language, since in the realities of one's own country it is impossible to master a foreign language without regard to the realities of the country of the target language, which is possible only in the context and when creating certain situations.

Considering the cognitive approach, A.R. Tamponi believes that the latter helps students overcome the difficulties of the intermediate stage of mastering English. In England, a cognitive academic approach to learning a foreign language based on a contextual approach is widespread. This approach combines teaching English with contextual learning and the use of special teaching methods and involves considering the model of the content contextual component as declarative knowledge, while the language component is aimed at teaching the procedural knowledge necessary for students to use the language as a means of communication.

The problem-solving approach is most effective for stimulating the cognitive activity of students, since it involves the use of tasks and the organization of activities based on the principle of problem solving and the development of independent thinking in students.

Studying the problem of professional competence, N. Chomsky emphasizes that not only "linguistic competence" is important, but also "communicative competence" [9]. Ciampio de Lope agrees with him, considering language as something much more than lists of words and sets of grammatical rules, believing that language is not just the possession of a system of linguistic rules. In his opinion, language is a form of communication



between people in a specific social context. Moreover, language is a way of thinking and processing information; it is a symbol of culture and personal identification. Researchers L.R.Oxford, R.F. Trenbly, M.Samral, T.A.Dyck and others consider it necessary to connect the studied language with its individual application in future activities or for communication at the everyday level.

It should be noted that in domestic science there are also different opinions on the problem of professional communication. In Russian psychology, the idea of the unity of communication and activity has always been accepted, since communication is logically real human relations, suggesting that any forms of communication are specific forms of joint activity of people, since people communicate in a certain type of activity and about it. Human activity and his communication with other individuals are also conditioned by the existing type of social relations. Consequently, there is an interaction between communication and social relations, which can be interpreted as follows: "communication is a real activity that unfolds procedurally, and social relations is a type of communication between its participants, which becomes the structure of society and, being formed in the process of practical communication of people, it and determines".

The professional orientation of training is one of the principles of didactics, the implementation of which makes it possible to ensure the orientation of each component of the educational process towards the formation of a competitive personality of a specialist, his knowledge, skills, creative thinking, and the development of professional abilities [11].

Professional orientation is one of the important characteristics of a foreign language course as an academic discipline designed, together with other sciences, to form a student's professional education. Mastering a foreign language means acquiring another code that provides direct connection to the information sources of world culture, science and practice, which significantly expand the professional capabilities of a specialist and make him more cultural.

As N.A.Protasova rightly answers in her research:

"Professional orientation is a multifaceted process that requires taking into account a number of specific factors as a driving force for the formation and development of the intellect of a professionally oriented personality."

She highlighted the following factors:

- Social, reflecting the needs of society for high-level specialists with knowledge of foreign languages;
- Socio-pedagogical, related to the development of the education system;

- Pedagogical, including the activities of the teacher and students in the formation of a specialist;
- Psychological and pedagogical, associated with intellectual activity in the formation of professional creative thinking and professional motivation.

Undoubtedly, the professional orientation of the learning process depends on the organization of educational activities. This process is influenced by internal (psychological characteristics of a student, motivation, his preparedness) and external (assessment of his activities by others) psychological conditions.

The formation of a foreign language communicative competence of a student - a future specialist is carried out mainly in the learning process. At the same time, for the formation of a foreign language professionally-oriented communicative competence of a student, it is important that upbringing, training and education are integrated by the development of the personality, which is of paramount importance. Communicative competence is not formed spontaneously; this requires a special organization of educational activities, taking into account the diversity and versatility of skilled labor in the modern community, as well as the complexity of cultures. The development of communicative competence is seen as a prerequisite for effective professional activity. At the same time, communicative competence is based not only on the breadth (volume) of knowledge of professional activity; this includes the skills of logical and semantic understanding of texts of professionally oriented literature and the use of special informative sources, the ability to ensure business contacts with representatives of foreign enterprises and communication with foreign clients and partners.

A.K. Markova distinguishes between types of professional competence:

-Special - possession of professional joint activities, cooperation, as well as the techniques of professional communication accepted in this profession; social responsibility for the results of their professional work;

- Personal - possession of the techniques of personal self-expression and self-development, means of resisting professional deformations of the personality;

- Individual - possession of the techniques of self-realization and personality development within the framework of the profession, readiness for professional growth, the ability for individual self-preservation, etc. [ten].

Summarizing, it can be argued that professional communicative competence is:



- Individual characteristics of the degree of compliance with the requirements of the profession;
- Knowledge, abilities and skills in the field of interpersonal interaction;
- Social communicative attitudes and positions necessary for effective interaction;
- Communication skills for the implementation of interaction.

In addition, communicative competence is based on the level of development of the spheres of individuality and is formed in the conditions of direct interaction.

Investigating the problem of the formation of professional communicative competence of a future specialist, we have traced that the majority of scientists consider communicative skills as one of the components of this phenomenon.

In the structure of competence, an important place is given to skills and abilities. A skill, as you know, is an action formed by repetition, characterized by a high degree of mastering and the absence of element-wise conscious regulation and control. A specific feature of the skill is the element of automation, it is based on techniques, methods of solving previously encountered problems. By thinking, one understands the method of performing an action mastered by the subject, which is provided by the totality of acquired knowledge and skills. The skill is formed through exercises and creates the ability to perform an action not only in familiar, but also in changed conditions.

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## PEER INFLUENCE AS DETERMINANTS OF UNIVERSITY- COMMUNITY PREFERENCE FOR GSM SERVICE PROVIDERS IN ONDO STATE, NIGERIA

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### ABSTRACT

*The study investigated the strength of peer influence as determinants of university-community preference for GSM service providers in Ondo State, Nigeria. Two research questions were raised to guide the study. The study adopted a descriptive research survey. The population for this study consisted of the undergraduate students, academics staff and non-teaching staff of universities in Ondo State who were subscribers to each of the various popular service providers in Ondo State, Nigeria, namely, MTN, Globacom (Glo), Airtel and Etisalat (now 9mobile). The four universities have 34,246 students, 1,642 academic staff and 2,743 non-teaching staff totaling 38,631. Random sampling technique was used to select the sample of three thousand, and eight hundred and sixty-five (3,865) respondents. Questionnaire was used for data collection; the reliability was done by using Gultman Split-half method with a r-value of 0.859. Completed copies of the questionnaire were retrieved from the respondents, 3,863 copies of the instrument were distributed 3,671 copies were collected and used for analysis. The data generated was analyzed using descriptive statistics, charts, mean, standard deviation and percentage. The findings of the study revealed that majority of the respondents are students and friends pressurized themselves to use the network they have been using, it was recommended that, the students should be careful not to be influenced by friends to choose a wrong network provider that might affect them in their academics.*

**KEY WORDS:** *Peer Influence, Network Providers and University-Community*

### INTRODUCTION

Global System for Mobile Communications (GSM) has grown so rapidly in Nigeria, it has been rightly described as one of the fastest growing in communication business markets and this has triggered the existence of many service providers. The popular network providers in Nigeria are MTN, Globacom (Glo), Airtel and Etisalat now 9mobile. These service providers compete for customers' loyalty that is

customer's preference. The word 'preference' is a strong liking for something more than another. It is the power and opportunity of choosing. According to Cambridge Academic dictionary (2022) is liking or wanting one thing more than another. Wikipedia (2022) stated that preference is a technical term usually used in relation to choosing between alternatives, for example someone prefers A over B if they would rather choose A than B.



Peers are people who are part of the same social group, so the term "peer pressure" refers to the influence that peers can have on each other, the term "pressure" implies that the process influences people to do things that they may be resistant to, or might not otherwise choose to do. Peer influence can be a powerful force as every individual wants a sense of belonging to a group. Peer group vary in their norms and values and some people find themselves under peer pressure to behave in socially desirable ways. (Omonike, Olagundoye, Morakinyo & Benjamin, 2015).

Maria (2014) expressed that peers with similar interests, similar academic standing who enjoy doing the same thing tend to gravitate towards each other. Whether it is gender, age, socioeconomic status, ethnicity or interest, they tend to gravitate towards those that are more similar to them. The relationship of choice to peer influence is, the group or social class of an individual will influence what the person needs or wants. The individual will like to live to the standard of those he is associating with. A group of people of approximately the same age who have similar interests, background or social status. The members of this group are likely to influence an individual's beliefs and behaviours (Natalie, Katerna & Elizabeth, 2019).

### STATEMENT OF THE PROBLEM

The network providers are competing for customers and the retention of the new and old customers, it was observed by the researcher that many customers do switch from one service provider to the other frequently, some operates with two or three of the network providers and some customers stay put with one service provider for reasons best known to them. The customers still have preferences for the service providers of their choice. Factors that discriminate the preferences customers have for one service provider over others are not precisely known. In the light of the above, this study examined the extent to which peer influence were determinant of university- community preferences for GSM service providers.

### OBJECTIVES OF THE STUDY

The broad objective for the study was to examine peer influence as determinant of university community preference for GSM service providers. Specifically, the study

1. Determine the categories of the respondent in the study.

2. Determined the Strength of peer influence as determinants of university-community preference for GSM service provider.

### RESEARCH QUESTION

1. What are the categories of the respondents?
2. What is the strength of peer influence as determinant of university-community preference for GSM service provider?

### SIGNIFICANCE OF THE STUDY

The outcome of the study will be of immense benefit to the students to know and to take decision on which network to use, the results will also help the staff (academics and non-teaching) to know which network to cling with. Also the outcome of the study will be of immense benefit to the service providers and it will assist them to make decisions such as what features to design, prices to offer to customers and how much to spend on advertisement and promotions to retain their customers.

### SCOPE OF THE STUDY

The study focused on peer influence as discriminants of university-community preference for GSM service providers. The study was restricted to Federal and State Universities which are located in the three Senatorial Zones in Ondo State. The respondents for this study consisted of students and staff (academic and non-teaching) using the four popular service providers, MTN, Globacom (GLO), Airtel and 9mobile.

### LITERATURE REVIEW

This section focused on the review of related literature both theoretically and empirically.

#### Theoretical Framework

The study is built on Choice Theory, which was developed by psychiatrist William Glasser (1998). The theory states that we are motivated by a never ending quest to satisfy our five basic needs woven into our genes. The theory contends that we are internally motivated not externally motivated by rewards and punishment. Choice Theory suggests that we always have some capacity to make choices and exercise control in our lives. The theory teaches that we are always motivated by what we want at that moment.

#### Conceptual Review

##### Concept of Peer Influence

Peer group are people of similar interests, age, background or social status. Age group are likely to



influence the person's beliefs and behavior. It contains hierarchies and distinct patterns of behavior. (Macionis, 2010).

The concept of peer influence focuses on the relationship between the adopter and his/her social environment. When individuals are together in groups, they exercise influence on each other. There are two competing perspectives on how peer influence affects an individual's behavior. An individual might agree with another individual's opinion because he or she was persuaded by the arguments (informational influence) or because he or she concedes to some kind of social pressure (normative influence). Peer influence as a concept is discussed in a variety of disciplines including sociology, psychology. Peer influence is commonly defined as the extent to which peers exert influence on the attitudes, thoughts, and actions of an individual.

Peers influences include the spread opinions of friends, family, colleagues and reference group. Mostly individuals will be influenced and get into following their trend and take their opinions as a standard of their purchase decisions. Peers can influence each other either in a positive way or negative way (Steinberg, 2010).

Elizabeth (2014) stated that Peers are people who are part of the same social group, so the term "peer pressure" refers to the influence that peers can have on each other. Although peer pressure does not necessarily have to be negative, the term "pressure" implies that the process influences people to do things that may be resistant to, or might not otherwise choose to do. According to Uzezi (2017) stated that many peer groups can exert a positive influence on their friend.

### **Peer Influence and Choice**

Peer influence is commonly defined as the extent to which peers exert influence on the attitudes, thoughts, and actions of an individual. A strong peer influence was also found to impact the purchase of publicly consumed necessities than privately consumed necessities. Peer influence is influence on observers or an individual who get encouraged to follow others by changing their attitude, values or behavior to conform to those of the influencing group or individual. Peer conformity in young people is most pronounced with respect to style, taste, appearance, ideology, and values. Peer pressure is commonly associated with episodes of adolescent risk taking because these activities commonly occur in the company of peers. Affiliation with friends who engage in risk behaviors has been shown to be a strong predictor of an adolescent's own

behavior. Peer pressure can also have positive effects when youth are pressured by their peers toward positive behavior, such as volunteering for charity or excelling in academics. Peer influence can swing both the negative and the positive side, it has a deep impact on one's decision making ability when it comes to choosing (Sumit, 2011).

### **Empirical Review**

The following are the empirical study on peer Influence **Studies on Peer Influence**

Jorn and Philipp (2007) conducted a study on peer influence in network markets: An Empirical Investigation, the researchers analyze the effect of peer influence on the diffusion of an innovative network good, it was arguing that the adopters of a network good have an incentive to convince others to purchase the same product because their utility depends on the number of other users. These peer-effect influences individuals' adoption decisions alongside the more familiar installed-base-effect based on the individual's own insight that a larger number of installed units increase his/her benefit of adopting.

Makgosa and Mohube (2007) carried out a study on peer influence on young adults' products purchase decisions. The study focuses on peer influence among young adults' products purchase decisions. A convenience sample of 101 university students participated in this study. The results of analysis of variance and t-tests indicated that there is more normative influence for a public luxury than for a private luxury, the results demonstrated that the influence of peers varies across various product categories.

### **METHODOLOGY**

The study adopted a descriptive research survey. The population for this study consisted of the undergraduate students, academics staff and non-teaching staff of universities in Ondo State who were subscribers to each of the various popular service providers in Ondo State, Nigeria. The popular network providers in Nigeria are: MTN, Globacom (Glo), Airtel and Etisalat (now 9mobile). The four universities have 34,246 students, 1,642 academic staff and 2,743 non-teaching staff totaling 38,631. Random sampling technique was used to select the sample, the sample for this study are three thousand, and eight hundred and sixty-five (3,865) respondents, i.e. 10 per cent of the population. A questionnaire was used for data collection. The reliability was done by administering the instrument in University of Nsukka, Ikere Campus,



Ekiti State, the data collected was analysed using Gultman Split-half method and a r-value of 0.859 was obtained indicating that the instrument is reliable for the study. The researcher and two trained research assistants administered the instrument, the instrument was given personally to the network subscribers in the study area. The researcher and the trained research assistant attended to all questions and gave instructions to the respondents. The administration of the instrument took four months. After filling the instrument, completed copies of the questionnaire were retrieved from the respondents, 3,863 copies of the instrument were distributed, only 3,671 copies were found to be properly filled and used for analysis. The

data generated for research questions was analyzed using descriptive statistics charts, mean, standard deviation and percentage.

### RESULTS AND DISCUSSIONS

Data were collected on the major variables of the study. 3865 copies of the instruments were distributed, only 3671 copies were found to be properly filled and used for analysis.

**Research Question 1:** What are the categories of the respondents?

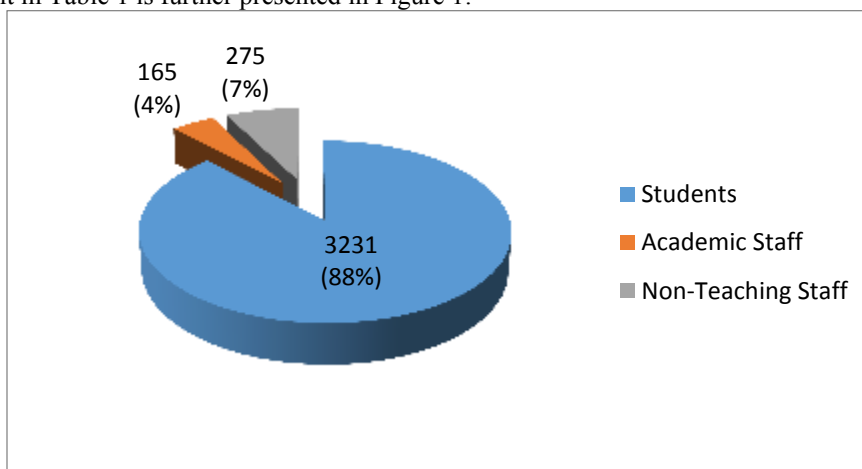
**Table 1: Categories of the Respondents**

Variables	Frequency	Percentages
<b>Students</b>	3231	88%
<b>Academic Staff</b>	165	5%
<b>Non-Teaching Staff</b>	275	7%

The results in Table 1 revealed the categories of the respondents sampled for the study. It was found that majority of the respondents are students with 3,231 (88%), this was followed by academic staff 165 (5%)

and non-teaching staff with 275 (7%) of the population of the study. This is an indication that all sections/ categories of people in the institutions where represented in the study to give viable responses.

The result in Table 1 is further presented in Figure 1.



**Figure 1: Pie Chart Showing the Status of the Respondents**

**Research Question 2:** What is the strength of peer influence as discriminants of university-community preference for GSM service provider?



**Table 2: Strength of Peer Influence as Discriminants of University Community Preference for GSM Service Provider**

S/N	Items	Mean	St. D	Decision
1.	I pressurize friends to use the network I have been using	3.24	0.87	Agreed
2.	I tease someone to like the network I am using.	3.33	0.79	Agreed
3.	I have been pressured into subscribing into friends' network	2.79	0.54	Agreed
4.	I pretend to my friends to like a network just because they will make fun of me when they discover I don't like the network.	1.63	0.35	Disagreed
5.	I pretend to like a network because my friends told me to do so.	1.72	0.32	Disagreed
6.	I was forced by my friends to change to their network.	3.25	0.76	Agreed
7.	I know others that are influenced by their friends.	3.38	0.79	Agreed
8.	As an individual, I am influenced by peer pressure.	3.34	0.89	Agreed
9.	I am influenced by peer pressure on the network to be used.	3.76	0.96	Agreed
10.	I am influenced by peer pressure on the network to be used and it makes me feel bad.	1.88	0.32	Disagreed
11.	Giving in to peer pressure makes one to be less confident.	1.79	0.36	Disagreed
12.	Peer pressure on network use affect teenagers.	3.76	0.87	Agreed
13.	Giving into peer pressure on the network to be used makes me to be successful in my work/studies.	3.11	0.80	Agreed
14.	I would have made a best choice of network if I was not pressurized into the one I am using presently.	2.32	0.56	Disagreed
15.	Peer influence is more prevalent in youth in all levels concerning the network to use.	3.54	0.96	Agreed
16.	Peer pressure is good in choosing a network to be used.	3.28	0.86	Agreed
17.	Most of my friends are using the same GSM network; this shows the seriousness of peer pressure.	3.33	0.79	Agreed
18.	Peer pressure only affects people at their adolescent years.	1.57	0.44	Disagreed
19.	I have been pressured into switching to the network I don't like.	1.65	0.34	Disagreed
20.	There are situations in which I stand out that I will not agree in using the network pressurized by my friends to use.	3.36	0.87	Agreed
21.	Peer pressure affects me at this age on the network to use.	3.78	0.88	Agreed
	<b>Grand Value</b>	<b>2.85</b>	<b>0.66</b>	<b>Agreed</b>

Source: Field Work, 2018

The result of analysis presented in Table 2 showed the strength of peer influence as discriminants of university-community preference for GSM service provider. The grand mean value (2.85) of respondents on peer influence was greater than the decision level of 2.50. This indicated that peer influence as discriminants of university-community preference for GSM service provider. Many of the respondents agreed that they pressurized friends and friend pressurized them to use the network they have been using. The respondents said they equally know others that were influenced by their friends to subscribe and use the same network with their friends. The decision to use the same network service with friends has never led to regret by the customers, hence making them to have confident in the network service provider. The influence of peers in the use of network has also contributed to students'

academic success. These responses indicated that peer influence is another factor that determined the choice of university-community preference for GSM service provider.

### DISCUSSION OF FINDINGS

The findings of the study revealed that majority of the respondents are students followed by academic staff and non-teaching staff.

The study also revealed that they pressurized friends and friend pressurized them to use the network they have been using, this was supported by Macionis (2010), peer group are people of similar interests, age, background or social status. Age groups are likely to influence the person's beliefs and behavior. The decision to use the same network service with friends has never led to regret by the customers, hence making



them to have confidence in the network service provider. The influence of peers in the use of network has also contributed to students' academic success. Steinberg (2010) pointed it out that peers can influence each other either in a positive way or negative way, but in this study, they influence themselves positively.

## CONCLUSION

The study identified that the ages between 21 to 30 formed the majority of people in the university that are using different mobile network. The study submits that the peer influences themselves in the area of choosing network providers. The study will help the network providers to improve more in the area they are slacking and plan an effective strategy to get more subscribers.

## RECOMMENDATIONS

The following recommendations were made in the study.

1. The students should be careful not to be influenced by friends to choose a wrong network provider because it might affect them in getting information on net at the appropriate time which may hinder their academics.
2. The academics and non-teaching staff should be careful not to be influenced by friends and colleagues to choose a wrong network provider because it might affect them in area of socializing, getting information on net at the appropriate time depending on office they are holding and also it can hinder the academics of those that engaged in educational programmes.
3. The network providers, Etisalat (9-mobile), Airtel and GLO should organized public talk/seminar to the public to find out their weakness and strength, this will enable them to improve in the services rendered.
4. The GSM service provider should do training and retraining for their staff, this would be of benefit to their subscribers.

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## ANALYSIS OF WORKING CAPITAL MANAGEMENT IN TORRENT PHARMACEUTICAL LIMITED

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### ABSTRACT

*Finance or Money is a field that is worried about the allocation (investment) of resources and liabilities throughout space time, regularly under states of dangers or vulnerability. It tends to be said as the science and craft of overseeing cash. Working capital management is also a part of finance. A business undertaking requires fixed resources as well as current resources for its effective working. The sum put resources into current resources is known as working capital. It is otherwise known as short term capital. CMIE PROWESS IQ was used as Data mining tool for collecting data. Firstly, we will evaluate the performance of the torrent pharmaceutical limited along with the help of tables and charts depending upon datasets and secondly, we will compare the performance of the working capital for five years.*

**INDEX TERMS** - *Finance, Working capital, CMIE process IQ, Assets, Liabilities, Torrent pharmaceutical.*

### I. INTRODUCTION

Account can likewise be characterized as the craft of cash the executive members in the market intend to value resources dependent on their danger level, essential worth, and their normal pace of return. Account can be part into three sub classifications: public money, corporate account and individual budget. At the present level finance is concerned with individual decisions about how much of their earning they spend, how much they save, how much they invest and saves.

As indicated by B.O WHEALER, account is that business action which is worried about the securing and protection of capital assets in gathering the monetary necessities and by and large targets of business undertaking.

A business context, finance involved the same types of decisions: how firms raise money from investors, how firm invest money in an attempt to

earn a profit, and how conclude whether to reinvest benefits in the business or disseminate them back to financial backers. Current assets are required to make efficient utilization of fixed assets. The amount invested in current assets in current assets is known as working capital. It is otherwise known as short term capital. Both fixed assets and current assets are required for the successful working of an enterprise. Working capital may be regarded as the life blood of a business enterprise.

### Statement of problem

working capital is set up as a huge piece of an affiliation. It is a significant determinant of the association's benefit and liquidity levels. Many businesses are finding it hard to manage their working capital, where 50% of the them fails due to lack of proper and effective working capital management strategies. The overall problem



discussed here is the lack of profitability and growth among organization because of poor management of the working capital of organization, which results to customer dissatisfaction and the decreased sales of the company. The study mainly covers the analysis and impact of working capital on profitability of the Torrent pharmaceutical limited.

### **Objectives of the study**

To study profitability position of the company and also the efficiency and effectiveness of the working capital.

Enhance the degree of working capital and limit the expense of asset.

It also analyses the liquidity and solvency position of the company and source of working capital.

## **II. LITERATURE SURVEY**

Akram (2019) <sup>[1]</sup>The fundamental point of his examination is to assess the patterns and boundaries of viability of working capital and its usage term in of volume of the firms of pharma in India. For the three parameters are taken i.e. distinctive lists initial one execution file, usage list and proficiency record. Working capital plays an important role in the organization to maintain its day to day expense.

Chand (2019)<sup>[2]</sup> Almost all the participants communicated the assessment "the connection between the chose strategy and the benefit is 'high-hazard, exceptional yield'". That means that aggressive policies increase profitability. The study entitled working capital management for four listed companies. The objectives of the study are to examine the financial of current assets, trends of data and effectiveness of working capital management

Anwar (2018)<sup>[3]</sup> examined the influence of the length of the operation cycle and the turnover of receivables and inventory on the profitability index of listed firms in Indonesia. The article concluded that reducing the turnover of both receivables and inventory leads to a decrease in the operation cycle and an increase the companies' profitability that capable administration of working capital eminently influences benefit.

Cakici et al. (2017) <sup>[4]</sup> concluded that the companies use profitability as one of the four segments applied for the analysis of financial statements and performance. The other three are productivity, dissolvability and market possibilities. Chiefs, leasers and financial backers utilize these

urgent impressions to investigate the organization execution and its future potential if activities are reasonably accomplished. Vintila and Nenu (2016)<sup>[5]</sup> added that resources such as cash, overdraft and liabilities are used to cover the variable and fixed costs of the production process and to purchase the stock for resale operations. Productivity is the connection among income and costs and how well the organization is performing and the likely future development of the organization and how it deals with its functioning capital.

## **III. INTRODUCTION OF THE COMPANY**

Torrent pharmaceutical is one of the leading pharmaceutical companies having presence in Indian and global markets, it is the flagship company of the torrent Groups was incorporated in the year 1972. The company is a dominant player in the therapeutical areas of cardiovascular (CV) and central nervous system (CNS). The Torrent pharmaceutical industry discovers, develops, products, and markets drugs or pharmaceutical drugs for use as medications to be administered (self-administered) to patients with the aim to cure them, vaccinate them, or alleviate the symptoms.

This organization study is to analyses the function of various departments of Torrent pharmaceutical limited starting from the purchase of raw material to the marketing each function is handled by different department. The duties of pharmaceutical companies have towards customers from a deontological perspective, pharmaceutical firms have a moral obligation to provide fairly priced drugs lest they use their consumers a means to profit rather than prioritizing fait access to medication.

### *Mission*

We commit ourselves to total customer care by delivering world class products and service.

### *Vision*

To be the leader in the pharmaceutical industry.

### **Roles of torrent pharma:**

1. To gather, explore and proactively assess data identifying with symptoms of medications during the clinical preliminaries stage.
2. To vivaciously screen wellbeing results and reports all proof of conceivable "antagonistic occasions" or negative results that a few patients experience once



the medication is made accessible to the overall patient populaces.

3. To identified huge variety of job roles available from laboratory-based research and development, clinical trait.

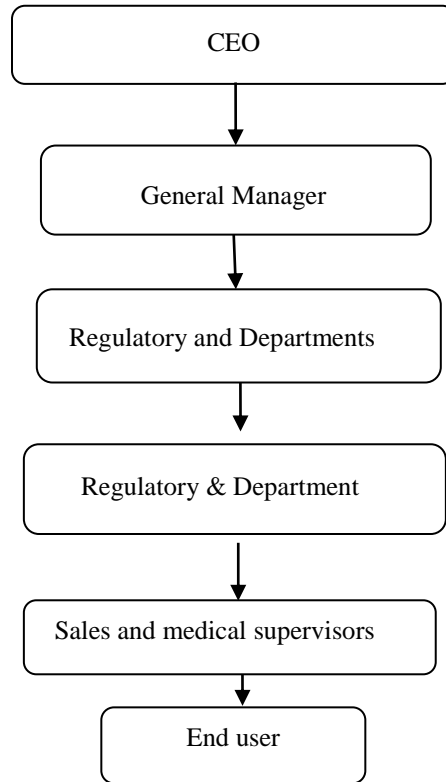
**Board of directors:**

Directors	Designation
Sudhir Mehta	Chairperson Emeritus
Samir U Mehta	Executive chairperson
Shailesh Haribhakti	Director
Haigreve khaiten	Director
Ameera shah	Director
Nayantara Bali	Director
C Dutt (Dr.)	Executive Director
Jinesh Dushyant shah	Executive Director

**Auditors:**

Year	Auditors & their partner
Mar-20	B S R & L L P Jamil Khatri
Mar-17	Deloitte Haskins & sells L L P Hemendra L Shah
Mar-11	Deloitte Haskins & sells L L P Gaurav J shah

**Organizational chart:**



**Major owner of equity share:**

**Promoters**

- 1.Aman Mehta
- 2.Anita Sudhir Mehta
- 3.Jinal Sudhir Mehta
- 4.Samir uttam Lal Mehta
- 5.Sapna Samir Mehta
- 6.Shaan Mehta
- 7.Torrent Investments private limited
- 8.Torrent private limited
- 9.varun Sudhir

**Non-promoters**

- 1.Cleaning members
- 2.Fidelity investment trust
- 3.HDFC trustee company ltd A/C
- 4.Mirae asset equity savings fund
- 5.Non-Resident Indian
- 6.Qualified institutional buyer
- 7.SBI large & midcap fund
- 8.Zao Torrent pharma
- 9.Torrent do brasil ltd



#### IV. RATIO ANALYSIS

##### *Techniques and tools of financial analysis (methods)*

The analysis of financial statements consists of a study of relationships and trend to determine whether or not the financial position of the concern and its operating efficiency have been satisfactory. In the process of this analysis various tools or methods are used by the financial analysis.

1. Ratio Analysis
2. Working Capital
3. Trend Analysis
4. Comparative Balance Sheet

##### *Ratio analysis:*

Ratio analysis is the analysis of financial statements with the help of ratios, "The way toward registering, deciding and introducing the relationship of thing and gatherings of things of budget reports with the assistance of proportions and deciphering the outcomes there from"

##### *Comparative statements:*

Statement prepared in a form that reflects financial data of two or more periods are known as comparative statements. Annual information can measure up to comparative information for earlier years.

1. Comparative balance sheet
2. Comparative income statements

##### *Trend ratio:*

Pattern implies propensity. Hence, audit and examination of inclination in bookkeeping factors is basically called as pattern investigation. Pattern alludes to propensity of development. Pattern examination alludes to the investigation of development of figures over a period. The pattern might be expanding pattern or diminishing pattern or unpredictable.

##### *Objectives of ratio analysis:*

To simplify accounting figures and facilitate analysis of financial statements. It also analyses the operational efficiency of a business and help in budgeting and forecasting. Ratio analysis facilitate intra firm and inter firm comparison of performance.

*Accounting ratios can be expressed in any of the following forms:*

1. Pure (or) proportion: It is expressed as a quotient. Example: 2 (or) 2:1
2. Percentage: It is expressed in percentage. Example: 25%

3. Times: It is expressed as certain number of times of a particular figure. Example: 4 times.

##### *Solvency ratio:*

Solvency ratios are classified into two. They are short term solvency ratio and long- term solvency ratio.

##### *Short term solvency ratio:*

##### *1. Current ratio*

The standard norm for current ratio is 2:1. The ratio was not standard So the ratio was not satisfactory for five consecutive years from 2016 – 2020.

##### *2. Quick ratio*

The standard type of a fast proportion is 1:1. However the ratio is less the standard norms for most of the years so it is not satisfactory during these study period.

##### *3. Absolute quick ratio*

The standard norm for cash position ratio is 0.75:1. In these five consecutive years the ratio was not stable from 2016 – 2020.

##### *Long term solvency ratio:*

##### *1. Debt equity ratio*

This ratio gives results relating to the capital structure of a firm debt equity ratio. We can conclude that the company depends on the debts funds in decreasing during the study period.

##### *2. Proprietary ratio*

The standard norm for proprietary ratio is 0.5:1 but for all the year it above the standard norm. The funds financed by the proprietaries in the total funds are continuously fluctuating year during the study period.

##### *3. Fixed assets ratio*

The standard norm for fixed assets ratio is 0.67:1. The fixed assets ratio is above the standard norm in all the years. The ratio increases year by year.

##### *4. Current assets to net worth*

During the study period the ratio of current assets to net worth fluctuating and it is not stable.



Profitability analysis:

*1. Gross profit ratio*

The company is maintaining proper control on trade activities even the gross profit is fluctuating during the study period.

*2. Net profit ratio*

During the study period profit margin increases and suddenly decrease because of increased in administrative and selling expenses.

*3. Operating profit ratio*

The operating profit ratio goes downward trend. The company must take suitable strategy to improve their operating profit position. It decreases year by year.

*4. Operating ratio*

The operating profit shows an unstable position. During the study period ratio continuously fluctuating.

*5. Return on shareholder fund*

The return on shareholders fund shown an upward analysis. It gradually increasing year by year.

*6. Return on total assets*

The return on total assets increases and suddenly decreases. They are not stable during the study period.

*7. Expenses ratio*

It also fluctuating during the five consecutive years. After certain period it gradually starts to decreasing. It will calculate the total expenses incurred in the concern

*Turnover ratio:*

*1. Fixed assets turnover ratio*

The fixed assets turnover ratio shows the unstable position. It decreasing during initial stage and starts to increasing in further years.

*2. Stock turnover ratio*

Inventory ratio increases for year and year that is company production is also increased subsequently sales are also increased.

*3. Capital turnover ratio*

In the initial stage of study period it decreases and gradually starts to increasing. The ratio was not stable during these years.

*4. Working capital turnover ratio*

Working capital plays an important role in the organization. They should have enough ideas to manage them. It decreases in the initial stage and gradually increases in the later period.

*5. Debtor turnover ratio*

Debtor ratio is in the peak for initial years and decreases for further years. It shows powerful an organization is in expanding acknowledge just as gathering debts

*Trend Analysis:*

*1. Current ratio*

Current proportion shows the connection between the current resources and current liabilities.. Trend percentage gradually increases year by year.

*2. Net sales*

It is the working incomes acquired by an organization by selling its items or delivering its administrations. The pattern rate diminishes in beginning stage and expansions in impending years.

*3. Net fixed assets*

It is the purchase price of all fixed assets (land, buildings, machinery) less accumulated depreciation. Trend percentage increases and remains unstable.

*4. Operating profit*

Operating profit ratio establishes the relationship between operational profit and sales. The trend percentage increasing gradually year by year.

*5. Net profit*

The net benefit rate is the proportion of after-charge benefits to net deals. The trend percentage remains unstable and increase during the study period.

**Working capital analysis**

Working capital estimates an organization's activity productivity and momentary monetary wellbeing. For instance, positive working capital shows that an organization has sufficient assets to meet its momentary liabilities.. For financial backers, it encourages them measure the capacity for an organization to traverse troublesome monetary periods. The term fund refers to working capital. The term stream implies development and incorporate both inflow and outflow. Fund flow analysis is useful



in judging the credit worthiness, financial planning and preparation of budgets. Cash flow analysis is concerned with preparation of cash flow statement which shows the inflow and outflow of cash and cash equivalent in a given period of time.

**Working capital = current assets – current liabilities.**

**Working capital analysis from the year 2015-2016 to 2019-2020**

Year	Current assets	Current liabilities	Working capital
2015-2016	31,543.00	15,184.50	16,358.50
2016-2017	36,218.10	12,307.40	23,910.70
2017-2018	37,265.00	30,749.10	6,515.90
2018-2019	37,677.70	31,066.40	6,611.30
2019-2020	38,571.10	34,253.30	4,617.80

Source: Annual reports

**Interpretation**

The tables show that during the study period the working capital decreases during the years 2017-2018, 2018-2019 and 2019-2020. And it increases during the year 2015-2016, 2016-2017. The increase in working capital indicates that current assets is higher than the current liability whereas decrease in working capital indicates current liability is higher than the current assets.

**Chart showing working capital analysis**



**Comparative study analysis**

**2015 – 2016**

The current assets like short term loans and advances 154.98%, inventory 32.15% shows

increase. It also increases reserve and surplus fund and decreases long term provisions. This shows a good financial position. Cash and bank balance (12.26%), other current assets (32.11%).

**2016 – 2017**

The financial position of firm is satisfactory. It also increases reserves and surplus and decrease long term provision. This shows a good financial position. Cash and bank balance (5.04%), other current assets (14.82%).

**2017 – 2018**

Cash and bank balance (28.29%), other current assets (28.29%). So that company is efficiently managing it working capital to meet its expenses.

**2018 – 2019**

The financial position shows the Cash and bank balance (316.6%), other current assets (1.11%). It also increases the reserve of the organization and reduces it debt to overcome their hindrance.

**2019 – 2020**

Cash and bank balance (64.37)%, other current assets (2.37)% and also increases the inventory level and all types of the reserve in the organization to meet its objectives.

**V. FINDINGS AND SUGGESTIONS**

The company should improve its liquidity position by raising the absolute liquid assets such as cash in hand, bank balance and marketable securities. The company may take necessary steps to boost the owner’s capital to maintain the debt equity ratio of the company. The company need to improve its offers and network facilities. The company shall utilize its assets which will enhance the efficiency of the firm. The company can adopt new improved technologies, which in turn will help the company to achieve a satisfactory return on investment. The company resource should be utilized to the maximum to improve the efficiency in operation of the business.

The liquidity position of the company is quite satisfactory but it is decreasing this must be improved further for the purpose of proper utilization of the liquid assets of the company. The working capital administration arrangement of the organization more powerful for its fruitful endurance in the serious business world. The company must adopt and use varies scientific methods of working



capital management so that the current assets are to be maintained at optimum level. The inactive money equilibrium of the organization is to be adequately utilized in beneficial venture openings by efficiently arranging incomes and recognizing the money overflows. Correct estimation of working capital should be made and heavy fluctuations in quantum of working capital as a relation to sales should be avoided.

## VI. CONCLUSION

This study was conducted to find out the financial position and profitability of TORRENT PHARMACEUTICAL LIMITED. On studying the financial performance of Torrent pharmaceutical for the period of 2015-2016 to 2019-2020, the study reveals that the financial performance and working capital management of torrent pharmaceutical is not good and it is facing more loss in all aspects a lot It has not had the option to keep up ideal expense situating. The company is more dependable on their own contribution to improve their financial resources so that the company must raise their capital. They should adopt new strategy to improve their liquidity position like Restructure of business debt, Utilize idle funds, Reduce overhead, Proactively manage receivables, Sell useless assets etc.,

According to the reputation, the company should improve their working capital based on requirement of organization. The company should illuminate the short- term solvency and long-term solvency to increase the inflow to meet long term needs.

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## **A STUDY ON CONSUMER PREFERENCE AND SATISFACTION TOWARDS ARUN ICE-CREAMS**

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### **ABSTRACT**

*Consumer preference research is the scientific study of the processes consumers use to select, secure, use and dispose of products and services that satisfy their needs. The objective of this paper is to study the consumer preference and their satisfaction towards Arun ice-creams and to understand the various factors that influence the customer satisfaction. From the study, it can be inferred that there is a significant relationship between variables such as age, monthly income and frequency of purchase and the amount spent by the customer for their purchase. Also the study revealed the relationship that factors such as quality of Arun ice-creams, number of variants and the availability/ reach of the ice cream parlors have towards customer satisfaction.*

**KEY WORDS:** *Arun Ice-creams, Customer preference, Satisfaction*

### **INTRODUCTION**

Ice cream is derived from earlier cream ice. It is a sweetened frozen food typically eaten as a snack or dessert. It is flavoured with a sweetener, either sugar or an alternative, and any spice, such as cocoa or vanilla. It can also be made by whisking a flavoured cream base and liquid nitrogen together. Colourings are usually added, in addition to stabilizers. The mixture is stirred to incorporate air spaces and cooled below the freezing point of water to prevent detectable ice crystals from forming. The result is a smooth, semi-solid foam that is solid at very low temperatures (below 2 °C or 35 °F). It becomes more malleable as its temperature increases. Arun Ice-creams was started as a small venture by R. G. Chandramogan, in 1970. In 1985, the brand topped the ice cream sales in terms of volume list, in Tamil Nadu. By 1999, around 700 outlets were present in Tamil Nadu, Karnataka, Kerala and

Andhra Pradesh, and 2,300 parlors as of 2018, and the brand extended to Maharashtra and Orissa.

### **SCOPE FOR THE STUDY**

The market has been segmented on the basis of product type, category, and distribution channel. By product type, the market is segmented as impulse ice cream, take-home ice cream, and artisanal ice cream. By distribution channel, the market is segmented as supermarket/hypermarket, convenience stores, specialist stores, and others. Product innovation can make Ice cream a luxury product. The ingredients added, texture, colour, flavour, packaging, the technology used, the circumstances of the purchase and consumption, all these contribute to a premium product. Companies are continuously innovating their products in order to stay in the market. Children are the major consumers of Ice cream, thus companies are producing products as per the interest of children.



## STATEMENT OF THE PROBLEM

The success or failure of market of Arun ice-creams, to a certain extent depends on the customer preference and level of satisfaction derived from the consumption of the product and also the nature and the type of competition in the market. There are different levels of satisfaction derived by different set of customers. Arun Ice-creams are also high in sugar, which makes up the majority of its carbohydrate content. The Mayo Clinic website warns that consumption of too much sugar may contribute to health problems such as weight gain, cavities and increased levels of blood triglycerides, another unhealthy type of fat.

## Objectives

- To study consumer opinion on price and package of Arun Ice-Cream products.
- To find out problems faced by the customer towards consuming Ice Cream.
- To offer suggestion based on the results of the study.

## Research methodology

Research methodology is a way to systematically solve the research problems. It may be understood as a science of studying how research is done scientifically. It includes the overall result design, data collection methods, and analysis procedure

### Research design:

The research design is the blueprint for the fulfilment of objectives and answering questions. It is a master plan specifying the method and procedures for collecting and analysing needed information.

### Sample size:

The sample size for the study is 150 respondents.

### Sampling method:

Convenience sampling techniques was used to select the respondents.

### Methods of data collection:

The source of data includes primary and secondary data sources.

### Primary data:

A primary data is a data which is collected for first time for the particular interest to collect more information. In this study, the primary data was collected using questionnaire.

### Secondary data:

In this study, the secondary data was collected from studies, journals, previous project reports and websites.

### Tools for analysis:

- The tools used for analysis are
- Simple percentage analysis
  - Chi – square test
  - Rank analysis
  - Weighted average

### Limitations of the study:

- It involves higher cost.
- More space will be needed as more equipment is required.
- Rainy weather or cold winters may affect sales negatively.
- The sample size taken for the study is limited only to 150 respondents.

## REVIEW OF LITERATURE

**Trucker (1957)** explained Consumer Behaviour as a concept that consumer can be defined in term either as a products acquire or use or their attitudes towards the products. Engel Blackwell, Miniard (2001) suggested that a customized strategy to attract male shoppers should include addressing issue of time and money expenditure involved in shopping activities. Jamal and Naseer (2003) defined customer satisfaction is defined generally as the feeling or judgements of the customers towards products or service after they have been use.

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## ANALYSIS AND INTERPRETATION

### Simple percentage analysis

#### 1. Age:

Table 1.1 describes the age of the respondents. It is categorized as below 18 years, 18-25 years, 26-35 years and above 36 years.



**TABLE 1.1**  
**Age of the respondents**

S.NO	AGE IN YEARS	NO. OF RESPONDENTS	PERCENTAGE
1	Below 18 years	28	18.7%
2	19 to 25 years	91	60.7%
3	26 to 35 years	21	14%
4	Above 36 years	10	6.7%
	<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Primary data

**Interpretation:** The above table reveals that the age of the respondents. It is clear that 60.7% of them are between 19 to 25 years, 18.7% of them are below 18 years, 14% of them are between 26 to 135 years, 6.7% of them are above 36 years.

**Inference:** It is concluded that the majority (60.7%) of the respondents are below 18 years.

## 2. FREQUENT PURCHASE OF ARUN ICE CREAMS

Table 1.3 describes the respondents frequent purchase towards arun ice-creams. It is categorized as every day, once in a week, 3 to 4 times a week, once a month.

**TABLE 1.2**  
**Respondent's frequent purchase of arun ice creams**

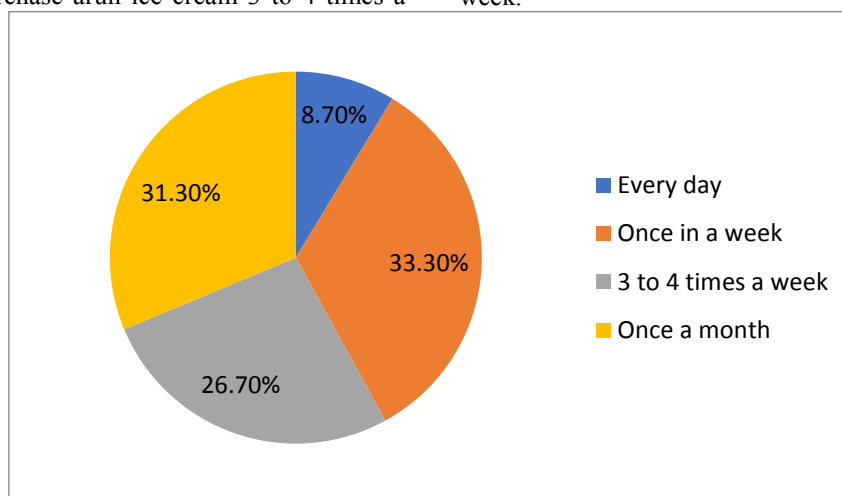
S.NO	PERIOD OF PURCHASE	NO.OF.RESPONDENTS	PERCENTAGE
1	Every day	13	8.7%
2	Once in a week	50	33.3%
3	3 to 4 times a week	40	26.7%
4	Once a month	47	31.3%
	<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Primary data

**Interpretation:** The above table reveals the purchase of arun ice creams by the respondents.33.3% of the respondents purchase arun ice cream once in a week, 31.3% of the respondents purchase arun ice cream once a month, 26.7% of the respondents purchase arun ice cream 3 to 4 times a

week , 8.7% of the respondents purchase arun ice cream every day.

**Inference:** It is concluded that the majority (33.3%) of the respondents purchase arun ice cream once in a week.





### 3. CHI-SQUARE ANALYSIS

Relationship between family income with the respondent's period of purchase of arun ice-creams:

**TABLE NO 1.3**

**Relationship between family income with the respondent's period of purchase of arun ice creams**

S.NO	FAMILY INCOME	Period of purchase				TOTAL
		Everyday	Once in a week	3 to 4 times a week	Once a month	
1	Below Rs.20000	0	10	9	11	30
2	Rs.20000 to Rs.40000	4	14	11	14	43
3	Rs.40000 to Rs.50000	4	14	12	11	41
4	Above Rs.50000	5	12	8	11	36
	<b>TOTAL</b>	<b>13</b>	<b>50</b>	<b>40</b>	<b>47</b>	<b>150</b>

To find out the association between family income with the respondent's period of purchase of arun ice-creams, chi-square test is used and result is given below.

#### Hypothesis

There is no significant relationship between respondent's family income with the respondent's period of purchase of arun ice creams.

#### Chi-square test

Factors	Calculation	Df	Table value	Remarks
Period of purchase	4.905	9	16.92	Accepted

**Interpretation:** The calculated value of chi-square is more than the table value. Hence, the hypothesis is accepted stating that there is no significant

relationship between the family income with the period of purchase of arun ice creams.

### 4. RANK ANALYSIS

Analysis of mostly used products and their rankings by the respondents

**TABLE 1.4**

FACTORS	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	RANK
Cup	42 210	17 68	26 78	41 82	24 24	150 462	I
Cone	13 65	28 112	33 99	35 70	41 41	150 387	IV
Stick	28 112	23 92	38 114	31 62	30 30	150 410	III
Colour ball	24 120	34 136	34 102	35 70	23 23	150 451	II
Family ball	18 90	24 96	27 81	36 72	45 45	150 384	V

#### Interpretation

It could be observed from the table 1.8 is about the analysis of mostly used products and their rankings by the respondents.



**5. WEIGHTED AVERAGE**

**TABLE 1.5**  
**Level of satisfaction towards arun ice creams by respondents**

FACTORS	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	MEAN SCORE
Quantity	63 315	62 248	24 72	0 0	1 1	150 636	4.24
Price	46 230	66 264	32 96	2 4	4 4	150 598	3.99
Availability	62 310	59 236	28 84	0 0	1 1	150 631	4.21
Taste	79 395	52 208	16 48	2 4	1 1	150 656	4.37
Packing	53 265	62 248	28 84	6 12	1 1	150 610	4.06

- According to 150 respondents, cup ice-cream is placed as FIRST RANK.
- According to 150 respondents, colour ball is placed as SECOND RANK.
- According to 150 respondents, stick ice-cream is placed as THIRD RANK.
- According to 150 respondents, cone ice-cream is placed as FOURTH RANK.
- According to 150 respondents, family ball is placed as FIFTH RANK.

**Inference:** Majority of the respondent’s concluded that the cup ice creams are preferred and ranked higher by the respondents.

**INTERPRETATION**

The above table justifies the satisfactory level towards arun ice-creams. The highest mean score or average is rises to 4.37 for the taste of the arun ice-creams by the respondents.

**FINDINGS**

**Simple percentage analysis**

- Majority (60.7%) of the respondents are below 18 years.
- Majority (33.3%) of the respondents purchase arun ice-creams once in a week.
- Majority (48%) of the respondents rated the brand’s price as reasonable.

**Chi square**

- There is no significant relationship between respondent’s family income with the

respondent’s period of purchase of arun ice creams.

**Ranking analysis**

- It is concluded that the cup ice creams are preferred and ranked higher by the respondents.

**Weighted analysis**

- It is concluded that the satisfactory level towards arun ice creams is highest for their taste by the respondents.

**Suggestions**

Most of the respondents felt that the taste is the main factor influencing the selection of brand of Ice creams while providing offers they should not reduce the taste.

- Advertisement regarding the Ice creams may be given not only in popular channel but also in the local cable to reach the people.
- The company may provide more advertisements and offer in festival time to improve the sales of Ice creams.

**CONCLUSION**

In modern world people desired attractive and quality brand. They need quality and taste with reasonable price. The essence of marketing a marketing strategy is to understand the changing needs and preferences of the consumer and to cease the opportunity to shape and fulfill them. Arun Ice-creams effectively understood those needs and



formulated some strategies that were stable and would help them in the long run to strengthen the company's position.

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## ON THE PEDAGOGICAL FOUNDATIONS OF TRAINING COMPETITIVE PERSONNEL IN A MARKET ECONOMY

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### ANNOTATION

*The article discusses the pedagogical foundations of training competitive personnel in a market economy. The national training program consists of training highly qualified, competitive personnel for all spheres of the economy and everyday life of the country, ensuring effective innovations in education, science, sports and culture, educating the younger generation based on national and universal values.*

**KEY WORDS:** *qualified personnel, striving for knowledge, market economy, innovative support, education system, competitiveness, pedagogical foundations.*

### DISCUSSION

Growing up educated and responsible, competitive highly qualified personnel is a prerequisite for finding your place in society today. The first President of Uzbekistan I.A. Karimov described the desire of our youth for knowledge as follows: "Indeed, we see the burning eyes of our youth, our children, their zeal, their desire for knowledge, their desire to be unsurpassed in the world as the main factor and guarantee of our bright future, the achievement of our noble goals. Firstly, the pursuit of knowledge, and secondly, without hesitation to learn from others. I want to say to my children: my dear children, never be ashamed to learn and explore. Humanity will learn while it is alive. I know everything, a person who walks without looking back at others will never have one or two"[1. 247-248 б]. On the issue of the need to adapt the activities of the continuous education system to modern requirements, President Sh.M.: "We consider it our top priority to improve the work of all parts of the education system in accordance with modern requirements."[2]. Thus, in the current conditions of globalization and market economy in the world, rapid reforms are taking place in many sectors and industries, the possibilities of the traditional education system are limited, the population cannot

use higher education in a timely manner, time requirements, direction (specialization), increase (decrease) in the relevance of professions, positions and levels, an increase (decrease) in the demand for relevant knowledge, skills and competencies, a growing need for higher and highly qualified personnel, managers and industry professionals throughout their lives. The National Curriculum is a highly qualified, competitive curriculum for all sectors of the economy and daily life of the country, effective innovative support of cultural production, spiritual, moral and harmonious physical education of the younger generation based on national and universal values, as well as the successful solution of the problem of gradual improvement of the education system as a single educational, scientific and production complex aimed at the development of mutually beneficial international cooperation in the field of personnel training.

In a market economy, innovation becomes an integral part of business. Any activity requires certain costs from an economic entity. Of course, innovation is also a cost. A study of economic entities engaged in innovative activities shows that the costs of these activities are divided into three groups:

1. The costs of organizing and managing innovation.



2. The cost of direct innovation.
3. Costs associated with the introduction of purchased new products in the country.

Indeed, in a market economy, the financial performance of a business is extremely important. This indicator reflects the financial condition of enterprises, their stability. Reforming the economy, including accounting, which is one of the tools for managing it, radically changed the system of accounting for financial results. The reliability of the costs of the financial and economic activities of an economic entity, their full reflection in reports, their compliance with information in the general ledger and journal orders, accounting registers, primary documents. Analysis of changes in the structure of costs, relative changes in costs (cost, operating costs - cost of sales, other costs) in accordance with the volume of production and provision of services in the structure of the enterprise, factors affecting the change in costs, analysis. First of all, we considered it appropriate to define a market economy.

A **market economy** is a democratic economy based on commodity relations, based on various property and economic freedoms, and governed by competition. It is the most advanced and promising system available in human development. The basis of a market economy is the production of goods, since it is dominated by a commodity economy, not a subsistence economy. The created products and services will be in the form of a brand, that is, they will be created for pre-sale in the market. The market economy is characterized by barter, not barter. Consequently, the consumption of goods takes precedence over natural consumption. The market economy is based on economic liberalism, that is, freedom, freedom of ownership and freedom of government. Although private ownership predominates, other forms of ownership will also exist. As a result of the free development of various forms of ownership or all forms of ownership, including private, private-corporate, state and state ownership, a property balance is formed, and a monopoly on any form of ownership is not allowed. In a market economy, there will be individual, based on their own property and funds, corporate, partnership methods of leasing land, buildings, structures, cars, and borrowed funds. The basis of a market economy is entrepreneurship, which is focused on making a profit by supplying goods and services to the market. In a market economy, the training of competitive personnel is a modern requirement. Entrepreneurs are a special category and usually make up 7-10% of the economically active population. In a market economy, everyone gets what they earn by doing what they can out of personal interest. Market demand determines what, how much to produce, where to sell and for what money. The

market price is formed on the basis of the ratio of supply and demand based on demand. Since the market economy divides business entities, their interests collide, and competition arises. Competition is the driving force of the market economy, the mechanism that ensures its development. The market economy is based on economic management methods. The market mechanism is an economic incentive mechanism, the main instrument of which is money. The desire to earn money ensures the production of goods and services in large quantities and of high quality. In a market economy, money is becoming the most common and convenient form of wealth - a means of universal economic relations. In a market economy, wealth is not prohibited, on the contrary, it is allowed, there is no upper limit for income, but its lower limit is set by the state, and the wages paid to workers cannot be lower than the established minimum wage. A market economy is an economy in which there is no shortage of goods and goods. Another characteristic of a market economy is the existence of fair income inequality. In addition, in order to ensure the strengthening of the competitive environment in the process of globalization and the "viability" of higher education, in our country, in contrast to the French and German models of universities, American "entrepreneurship" is used the formation of so-called "universities", the creation of a "university complex" that implements the integration of science, education and production, ensuring the transfer of research into practice

Creation and maintenance of new knowledge in the world, including in our country in the era of globalization, market economy, short-term obsolescence of knowledge and rapid exchange of information to improve the management of training highly qualified competitive personnel in higher education institutions and given the urgent need for their timely transfer, the concept of "lifelong learning", that is, the transition from higher education to the concept of "lifelong education" and adherence to its procedures, is an objective necessity and goal.

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## A REVIEW ON HOMECLOUD-Personal Cloud

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### ABSTRACT

Data is the new gold and with more data comes the need to for more storage. Cloud storage services are not a thing of the future but are being used abundantly right now. However, there are terms and conditions to this. Some of these cloud storage services provide limited amount of free storage before you have to start paying for them or they are not free at all or they are a onetime payment deal. Cloud storage services backup your data and give you the opportunity to free up space on your device. They are used for multiple purposes like uploading personal data, company data, sharing files among multiple users. This data can be accessed either through the public internet or a dedicated private network. The data that you transfer offsite for storage becomes the responsibility of a third-party cloud provider. This review paper introduces one such Cloud storage service called "HomeCloud" which is unique and has a completely different approach towards storage and its use.

### I. INTRODUCTION

Nowadays everyone has a smartphone and with increased usage of different apps and media. This leads to a common issue that is a shortage of storage. According to survey done by SanDisk Storage appears to be a real problem for smartphone users in India, with 29% running out of space at least once a week and 62% running out of space at least every three months. Media files tend to take up a huge chunk of your device storage which could be utilized for something else. So how do you make space and keep your data at the same time?

We can back up our data. There are plenty of cloud storage services available like Google Cloud & Microsoft Azure. Some of these even provide free service when you first start using them. In the long run, these services tend to be costly and raise security and privacy concerns.

We are proposing a system where we can store and upload our data to the personal cloud that is

the Homecloud. We will be using an app to access the data and hardware to store the data.

Homecloud is a storage device of about 500GB to 1TB capacity which can be connected wirelessly using Wi-Fi to laptops, mobiles, tablets etc. We can also change, increase the storage limit by changing the hardware of Homecloud.

In this system, we can connect to the Homecloud through WIFI and an application present on the device. When a device is connected to Homecloud, the media files will be transferred to Homecloud and deleted from the device hence creating space. We can access the uploaded media through an application.

Since Homecloud is a hardware device which can be accessed only by you it reduces security and privacy concerns and makes data leak impossible. This will help us in:



- Reduces the manual labour one would need to put in to transfer data from their device to an external hard disk.
- Upload important documents so that you can access those when needed.
- Upload media received from social media apps to save space on your device.
- Centralized personal cloud which everyone can access.

## II. LITERATURE REVIEW

A) A Load Balancing Algorithm For Private Cloud Storage (2013) Prabavathy.B, Priya.K and Chitra Babu [1]

This paper basically tries to solve the problem of increasing storage demands from the existing consumers or the increasing number of consumers. This paper proposes dynamic expansion of cloud storage with additional storage nodes. This algorithm attempts to balance the load during the data placement as well as in any later situations that lead to load imbalance.

These are considered as a set of storage nodes  $S = \{S_i/\forall(1..n)\}$ . Here one machine will control the nodes and will act as a centralized coordinator (CC). The centralized coordinator is used to coordinate the storage resources of the storage nodes (commodity machines).

B) A Self-Learning Scheduling in Cloud Software Defined Block Storage (2017) Babak Ravandi and Ioannis Papapanagiotou [2]

This method proposes storage management through software defined storage (SDS). SDS decouples the underlying storage hardware from the software that manages it thus reducing complexity. This method will create a self-learning scheduler without knowing storage backend nodes.

This method provides customization of block storage and optimized scheduling decisions based on the workload characteristics and performance of data. The proposed scheduler treats the storage backend nodes as a black box and requires zero knowledge of their internal states hence making them independent.

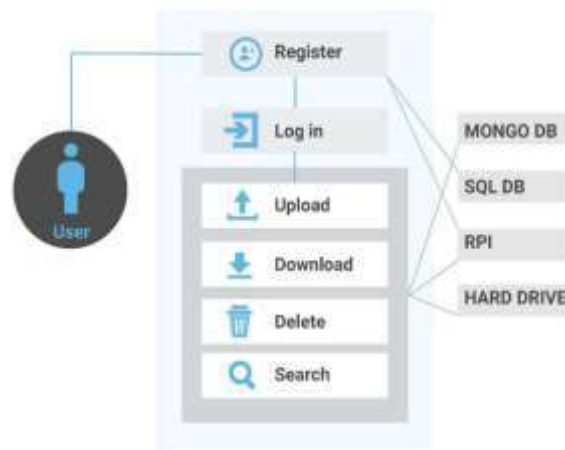
C) Secure Personal Cloud Storage (2015) Kheng Kok Mar, Chee Yong Law and Victoria Chin [3]

Authors of this paper suggested a way of storing data in portable storage device with features of cloud. This paper is introducing a way to split data into unrecognizable slices and disperse the slices.

This will be done through information dispersal algorithm (IDA). This algorithm will ensure data confidentiality and availability.

In IDA, a generator matrix  $A$  of  $n$  rows and  $m$  columns, as is used to transform the original file into  $n$  slices. A Cauchy matrix, in which any  $m \times m$  sub-matrix is non-singular, can be used as the generator matrix.

## III. FLOWCHART



## IV. METHODOLOGY

### 1-Hardware

- Homecloud will act as personal cloud with hard disk in it.
- Homecloud will have WIFI connectivity.

### 2-Connectivity

- We will use WIFI of both the devices to establish a connection.
- We will be using an app to access the data and Homecloud to store the data.

### 3-Application

- A mobile application will be used to access the HomeCloud.
- After installing the required application, you have to register before you can use the HomeCloud services.

### 4-Accessing the data

- You can upload, download, delete or view the data using an application.

### 5-Managing the data

- Managing the data stored in homecloud will be using AI.
- Data duplication will be checked through an AI and if there are multiple files present then duplicate files will be deleted.

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- Face detection AI will be used to segregate photos according to faces.

## V. CONCLUSION AND FURTHER DEVELOPMENT

In this paper, we have proposed an efficient system where we can upload and download the media files, important data from a personal cloud. This personal cloud will be situated in a home or small office where we can access that physically too. This will be helpful to save important document as well as to upload extra media files on cloud and thus helping to save space.

This system will also use AI to delete duplicate files so that the cloud will be more efficient. Since Homecloud is a hardware device which can be accessed only by you it reduces security and privacy concerns and makes data leak impossible.

This system can be used in more places with some tweaks. We can use this in school, a college where everyone can use this as a common point for submitting your classwork, checking the time table, updating attendance. Everyone can access the study material. We can implement in the small firms where the sharing of documents is needed. Anyone from the firm can access the files or documents they need and upload the documents.

3. *Defined Block Storage" 2017 IEEE 10th International Conference on Cloud Computing*
3. *Kheng Kok Mar, Chee Yong Law and Victoria Chin "Secure Personal Cloud Storage" The 10th International Conference for Internet Technology and Secured Transactions (ICITST-2015)*



## **ANALYTICAL COMPARISON OF TRADITIONAL MARKETING TO DIGITAL MARKETING**

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### **ABSTRACT**

*Marketing goods is the basic phenomenon of every society. The objective of marketing is to make products available to consumers as per the current market demand. It has undergone changes to reach the consumer. Marketing has been done physically since long back. Consumers are becoming smarter in terms of purchasing. This requires innovation in marketing. Prime focus is understanding the difference between the conventional way of marketing products and the technological way of marketing of products in India. This article recognizes the differences in consumer opinions by availing the distinguished services of traditional and internet marketing strategies. Internet is changing the ways to reach consumer fast and is a more convenient way than customary means of marketing. Consumers are becoming more Information Technology (IT) savvy in their searching as well as I their purchasing preferences. In India, ecommerce is not yet considered safe but cyber has highly vibrant and potential market in coming days to win eyeballs of Indians.*

### **INTRODUCTION**

Marketing refers to the activities of a company that undertakes to promote the buying or selling of a product or services of a company of firm. Marketing includes the activities of advertising, selling, and delivering the products to consumers or other businesses. Sometimes marketing is done by the affiliates on behalf of the company. It is basically on two types, they are: traditional marketing and digital marketing. The comparison of both of these marketing methods and giving the comparative results is the base of these studies.

Traditional marketing refers to the type of marketing that is not on online. This means print, broadcast, newspaper, direct mail, phone, and outdoor

advertising like billboards. From newspapers to radio, this method of marketing helps reach the targeted audiences. This marketing is not only one of the oldest forms of marketing, but also one of the most researched. On the other hand, traditional methods like newspapers, TV or radio or street marketing are accessible for the large majority of people.

Some traditional methods, allow companies to have a personal interaction with their customers and get direct and real-time feedback, which turns out to be extremely valuable when testing new products to be launched. Owing to Smart TV technology, consumers watching television often use Internet as well. Having online access while watching the encounters some sort of traditional marketing in their everyday lives, whether it's getting the mail or your daily newspaper.



Digital marketing, is also as called online marketing. It is the promotion of brands to

connect with the potential customers using internet and other forms of digital communication. This includes not only email, social media, and web-based advertising, but also text and multimedia messages as a marketing channel. This marketing is the components of marketing that utilizes the internet and online based digital technologies to promote products and services. As digital platforms becomes increasingly incorporated into the marketing plans and everyday life and as people increasingly use digital devices instead of visiting physical shops.

Using online media channels and other online ways, digital marketing is the method by which companies endorse goods, services, and brands. Consumers heavily rely on the digital means to research the products. For example, Google marketing insights found, 48% of consumers start their inquiries on the search engines, while 33% look into brand websites and 26% search within mobile applications.

## OBJECTIVES

- To derive and analyze differences between traditional marketing and digital marketing.
- To study the various factors which influence both the marketing strategies.
- To know briefly about the concept of traditional and digital marketing.
- To know the need to consider traditional marketing in the current Marketing strategy.
- To find out why digital marketing has overcome traditional marketing.

## STATEMENT OF THE PROBLEM

Defining the problem statement of a Digital Marketing campaign not only helps in determination of rights for direction of efforts, but it also helps to synchronize all the Digital marketing efforts with the overall business model. Present study focused on both the traditional marketing and digital marketing. The basic force of the study is to compare and analyze traditional marketing and digital marketing.

## RESEARCH OF METHODOLOGY

### Research Method

The Research Method used for the project is a Descriptive method. Descriptive

research, also known as statistical research. Different tables, pie charts and bar graphs are used to show the responses given by respondents.

### Data Collection

Primary and secondary data collection methods are used.

### Sources of data

Survey Method is employed to collect the data from the respondents through a structured questionnaire designed on the basis of objectives of the study. Secondary Data have been collected through various Journals, books & internet which are restricted to the conceptual framework of the paper only.

### Sampling Design

The population consists of Students and Youth at the collegiate level & Employment level. A convenient sampling size of 150 respondents has been randomly selected.

### Data Analysis

The collected data is then edited, consolidated and subjected to suitable statistical tests & the data is presented in form of tables.

## STATISTICAL TOOLS USED

The following statistical tools have been used in the study for the purpose of analysis:

- Simple Percentage Analysis
- Chi - Square test
- Ranking analysis
- Weighted average analysis

## REVIEW OF LITERATURE

According to Finne & Grönroos (2017), customer-Integrated marketing communication– the CIMC model – requires marketing managers to more understand consumer behavior, their ecosystem, and logics. In the past, companies used to send mass-media marketing messages Over traditional media (magazines, billboards, Television, etc.), whereas today they have An option to send individualized marketing Messages particularly targeting one group of users or even an individual customer. The development of technology and the Internet is a Factor with the highest impact on consumer Behavior in the 21<sup>st</sup> century.

According to Stuart E. J. (2014) day by day there is upward growth of online services in regular usages by consumers. However, traditional marketers somehow do not want to admit that the world changed. They are slow in taking advantage of new opportunities presented to them. B2B-enhanced supply chain processes need to pay much attention to real-world



business processes, adapt automated systems to business behavior and mingle content and technologies with crucial information systems.

European Journal of Marketing. Vol. 51 Issue: 3, pp.445-463, doi: 10.1108/ Stuart, E. J. (2014). New Media: Debunking the Myths. Journal of business Strategy, 31(1), 56-58.

**Reference**

Finne & Grönroos (2017).Communication-in-use: customer-integrated marketing communication

**SIMPLE PERCENTAGE ANALYSIS**

**Table - I Demographic Factors of the Respondents**

Factors	Particulars	Frequency	Percentage
Gender	Male	56	37.3%
	Female	94	62.7%
Marital Status	Married	114	76%
	Unmarried	36	24%
Monthly Income	less than Rs.20000	46	30.7%
	Rs.20000-30000	53	35.3%
	Rs.30000-40000	22	14.7%
	More than Rs.40000	49	19.3%
Type of Family	Nuclear family	102	68%
	Joint family	32	22.7%
	Single-parent family	13	8.7%
	Others	1	0.7%

Source: Primary Data

**CHI - SQUARE ANALYSIS**

**Null hypothesis (Ho)**

There is no significant relationship between educational qualification and advertisement platform of the respondents.



Educational qualification	Advertisement platform				Total
	Newspaper	Magazine	Social media	Others	
SSLC	3	1	4	0	8
Higher Secondary	4	0	11	1	16
Undergraduate	18	15	77	4	114
Post Graduate	3	0	9	0	12
Total	28	16	101	5	150

**CHI-SQUARE TESTS**

Factors	Calculation value	DF	Table value	Remarks
Educational qualification	7.855	9	16.92	Accepted

It is clear from the above table that the calculated value of chi-square at is more than the table value. Hence the hypothesis is accepted stating there is

no significant relationship between age and preference of the product level of respondents.

**RANK ANALYSIS**

**RANKING FACTOR INFLUENCE ON PURCHASING THROUGH DIGITAL MARKETING**

FACTORS	1 (5)	2 (4)	3 (3)	4 (2)	5 (1)	TOTAL	RANK
Reachability	41 (205)	37 (138)	30 (90)	19 (38)	23 (23)	50 (504)	III
Eye-Catching	48 (240)	54 (216)	22 (66)	17 (51)	45 (90)	150 (565)	I
Diverting	22 (110)	31 (124)	17 (51)	45 (90)	35 (35)	150 (410)	V
Influential	61 (305)	24 (96)	41 (123)	15 (30)	9 (9)	150 (563)	II
Offers	31 (155)	22 (88)	56 (168)	28 (56)	13 (13)	150 (480)	IV

**INTERPRETATION**

From this ranking analysis, it is found that eye - catching (Rank 1), which comes next followed by influential (Rank 2), reachability (Rank 3), offers (Rank 4),diverting (Rank 5)

**INFERENCE**

Majority of the respondent’s behaviour is towards the Eye-catching ads as the major features in



Digital marketing. Diverting is last in ranking of influence on purchasing through digital marketing.

today, as a miniscule part of a brands marketing strategy.

### SUGGESTION

- In today's online world,digital marketing is essential, no matter about industry or company size, it is one of the best ways to grow the business.
- As marketing evolves and changes, it seems like there are constantly new platforms and strategies being touted as the next biggest thing and we have to keep our customers updated.
- It is impossible to keep up with all of them, but every one once in a while ,they comes along the way that delivers their needed results, so it is important for all to get on the board on digital marketing to keep up their business.
- Traditional marketing is used by both the educated and non- educated people, since advertisement and buying of products is not only for the educated people the uneducated people in the society get the awareness of products only through the traditional marketing such as television, direct selling and so on...
- Thus, in the current trend both the traditional and digital marketing strategies are to be used to attract their customers and to promote their brands.

### CONCLUSION

The topic of the study was “ Comparison between traditional marketing and digital marketing and the objective was to find and analyze differences between traditional and digital marketing and to study the various factors influencing both the marketing strategies. I found that in our country internet users are mounting daily. Due to this, companies are spending a huge amount of their budget on digital marketing, and with each passing day, companies are shifting from traditional to digital marketing strategies.

Traditional marketing consist print ads in newspapers, magazines, billboards, direct mail, business cards, posters, TV and radio commercials and printed paraphernalia such as brochures or leaflets. These were effective mediums until the advent of the internet and they are perhaps somewhat relevant even

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## **A STUDY ON FINANCIAL STATEMENT ANALYSIS OF TITAN COMPANY LIMITED**

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### **ABSTRACT**

*Finance is the management of money and includes activities like investing, borrowing, lending, budgeting, saving, and forecasting. Account is that business action which is worried about the obtaining and preservation of capital assets in gathering the monetary requirements and generally targets of business endeavor. Finance deals with how the corporation obtains the funds and how it uses them. Finance is the application of the planning and control functions of the finance functions, financial management involves the application of general management principles to a particular financial operations. CMIE PROWESS IQ was used as Data mining tool for collection of data. we will evaluate the performance of the titan company limited along with the help of tables and charts depending upon datasets and we will compare the performance of the financial standard and statement for five years.*

**INDEX TERMS** - *Finance, financial statement, CMIE process IQ, Assets, Liabilities, financial performance, Titan company.*

### **I. INTRODUCTION**

Finance or Money is a field that is worried about the assignment of resources and liabilities throughout reality, frequently under states of hazard or vulnerability. Account can likewise be characterized as the craft of cash the executives Participants in the market mean to value resources dependent on their danger level, major worth, and their normal pace of return. Account can be part into three sub classes: public money, corporate money and individual budget. At the present level, finance is concerned with individuals decisions about how much of their earning they spend, how much they save, how much they invest and saves. In a business context, finance involves the same types of decisions how firms raise money from investors, how firm invest money in an attempt to earn a profit, and Account can be said as the science

and craft of overseeing cash how they conclude whether to reinvest benefits in the business or appropriate them back to financial backers.

### **Statement of problem**

Financial performance is established as an important part of an organizations position and status. It is a major determinant of the organizations profitability and liquidity levels. Many businesses are working hard to improve their level of performance on this competitive world, where average level of the them fails due to lack of proper and effective profitability and liquidity management strategies. The overall problem discussed here is the lack of profitability and growth among organization because of poor management of the net profit and liabilities of organization, The study aims at assessing the ratios. This study gives an exposure to the researcher as well as to general public on the overall efficiency at which



the lifestyle company is serving the public. The study will throw on the different aspects where TITAN COMPANY Ltd exceeds and where lacks and will provide an opportunity to lifestyle companies in balancing the activities as to achieve the best performance.

### **Objectives of the study**

To study the financial statement analysis and also the profitability position of the bank. To analyze the liquidity and solvency position of the company. To know the management of assets of the company. To offer findings and suggestions for further improvements.

## **II. LITERATURE SURVEY**

Toby, Adolphus J (2008) [1] The investigation on 'Liquidity execution relationship in Nigerian Manufacturing Companies (1990-2002) tracked down that the relapse results showed genuinely huge connection between proportions of liquidity and chose proportions of productivity, effectiveness and obligation in Nigerian cited fabricating.

Das P. K. (2008)<sup>[2]</sup> The study on "Liquidity management in Ranbaxy Laboratories Ltd;" that from the view point of conventional standards of current ratio and acid-test ratio, the short-term liquidity position of the company might be said to be satisfactory. From the viewpoint of industry norms also, the position was satisfactory. Although the level of cash maintained by the concern was not sufficient for meeting its current liabilities, it might be the policy of the company to maintain level of money and bank equilibrium and more usage of money resource Further he stated that the debtors' turnover ratio or the position of debtors as compared to the sales in the selected company was much lower than the standard set by the CMIE. He argued that the rank correlation between liquidity and profitability showed that these two were mildly or lightly related to each other. In other words, it reflected a lower degree of positive association between the liquidity and profitability of the company.

Dinesh M., (2008) <sup>[3]</sup> The article entitled, "Working Capital Management: Challenges and Strategies" providing an insight into concept of working capital, the different challenges being faced by the business firms in managing working capital and the strategies to be adopted for its prudent management, concluded that most of the businesses fail not for want of profit but for lack of cash.

The fast growth in production and sales may cause the business to utilize all the financial resources

seeking growth and making the working capital works for you. Preserving the optimal cash balance, investment of surplus funds in marketable securities that give the best possible return, proper management of accounts receivables, better inventory management system, maintaining desired level of short-term financing in the cheaper and flexible manner are the characteristics of prudent working capital management. The working capital management is not an end itself but it is part of the firm's management. The needs of it must be considered with regard to the aspects of financial and non-financial performance of the business. Efficient working capital management is the key to the success of any business and the way to prevent the failure."

Santanu Kumar Ghosh (2004) <sup>[4]</sup> A study of the Indian Cement Industry and its working capital management efficiency. He found that the industry as a whole did not perform remarkably well during the period from 1992-93 to 2001-02.

Singh (2004) <sup>[5]</sup> An in-depth study on Working Capital in Lupin Laboratories Ltd. endeavored to evaluate the meaning of the board of working capital through working capital proportions and working cycle. Having examined seven years information (1995-2002), he reasoned that the liquidity position of the organization was acceptable, mean level of current resources was high when contrasted with the level of net fixed resources and the working cycle showed declining pattern. The component savvy examination of working capital additionally uncovered that exchange indebted individuals established the most noteworthy level of current resources followed by credits and advances, inventories and money and bank adjusts. The investigation drew out the requirement for productive administration of debt holders, the level of which was the most elevated.

## **III INTRODUCTION OF THE COMPANY**

Titan Industries Ltd. is the fashion of Lifestyle industry on stock exchanges, which is engaged in time keeping business. Titan has nearly 24 years standing in Indian market and celebrating year 2009-2010 as Silver Jubilee year. Titan Industries Limited, a Tata Group Company, fused on 26th July 1984 at Chennai has been fabricating simple electronic watches with a decision of more than 150 plans.



Titan, Sonata, Raga, Spectra, Aqura, Tanishq, Insignia, Classique, are some of the popular brands of watches produced in steel and gold plated forms. The company has expanded its operation throughout India and abroad particularly in North and South Asian countries. Apart from time-keeping business, Titan has stretched its legs in life-style and fashion industry as well. It has succeeded in jewellery and sun goggles business. Tanishq (In Hindi „Tan“ means the body and Ishq means the love) is its world famous brand of jewellery and Fastracks is of sungoggles.

The company has been producing a wide range of jewellery and sungoggles (Fatrack), which is changing the looks and lifestyles of Indian youth. The product range of Titan is targeted at the consumers belonging to all income brackets and as such becoming the home brands. Presently, the company is operating with the fully paid up capital of Rs.82.28 crores and turnover of Rs.3098.20 crores as on 31st March 2008. The book value of its equity shares stands Rs.98.26 as on 31 March 2008.

Titan Company Limited was introduced on 26 July 1984 under the name Titan Watches Limited in Chennai. A plant was set up to fabricate quartz simple electronic watches in the State Industries Promotion Corporation of Tamil Nadu, Ltd. Modern zone at Hosur. In November 1986, Titan Company and Casio marked a MoU proposing to make 2 million advanced and simple computerized watches. In 1989, a satellite case plant was set up in Dehradun Uttar Pradesh, Uttarakhand at present with an assembling limit of 500,000 watch cases every year.

In September 1993, the organization changed its name to Titan Industries Ltd. as it wandered into other scope of items other than watches. In 1994, Titan dispatched its gems image Tanishq. In 1998, the organization dispatched its watch and frill brand, Fastrack, directed at a more youthful crowd in an offer to rival Timex. Fastrack was situated as a free extra brand focusing on the metropolitan youth.

In 2016, Titan opened prescription lens manufacturing facilities in Noida, Kolkata, and Mumbai to improve its order processing time 2018, Titan blended its adornments image, Gold Plus focused at clients in South India with Tanishq to build up the brand's essence in South.

## PRODUCTS

### *Watches*

The watches division includes brands Fastrack, Sonata, Raga, Octane and Xyllys. In 2011, the organization got permit for advertising and dispersion of Tommy Hilfiger and Hugo Boss watches.. Favre Leuba was incorporated in 2012. In 2018, the division accounted for ₹2,126 crore in revenue which was 10% of the total of the company.

### *Eyewear*

In 2007, Titan Industries forayed into the style extras industry with the dispatch of shades, a Rs 330-crore market. It introduced Titan Eye+ that has a wide range of frames, contact lenses, prescription eyewear, and sunglasses. The division represented ₹415 crore in FY 2016-17 keeping a steady development of 8%.

### *Jewellery*

Xerxes Desai started the brand Tanishq in 1995. Zoya was dispatched in the extravagance portion, while Mia, a sub-brand was under Tanishq for work-wear gems. Titan's all out income became 20.44% in 2017-18 to ₹15,656 crore, of which gems deals got ₹13,036 crore. In 2016, Titan put resources into Carat and who announced a turnover of ₹290 crore in FY 2017-18.

### *Perfume*

In 2013, Titan dispatched six variations of fragrance in the Indian scent market under the brand name Skinn. They worked together with incredibly famous perfumers including Alberto Morillas and Olivier Pescheux.

## Profile of the company:

Type	Public industry lifestyle
Founded	1984
Founded	Xerxes desai
Headquarters	Bangalore, Karnataka, India
Key people	Mr. N. Muruganandam (chairman) C K Venkataraman (MD) C K Venkataraman, CEO
Products	watch, jewellery, precision engineering, bags, perfumes, belts, wallets and eyewear
Brands	Fastrack • tanishq • Titan Eyeplus • Sonata
No of employees	7,500 (2020)
Website	Titancompany.in



## SENIOR MANAGEMENT TEAM OF TITAN

Mr. C K Venkataraman - Managing Director.

Mr. SaumenBhaumik - Chief Executive Officer- Eyewear.

Mr. AjoyChawla -Chief Executive Officer- Jewellery.

Mr. S Subramaniam - Chief Financial Officer & Head Of IT Function.

Mr. Rajnarayan - Chief Human Resource Officer. Mr. Dinesh Shetty General Counsel & Company Secretary.

Ms. SuparnaMitra - Chief Executive Officer - Watches and Wearables division.

## IV. RATIO ANALYSIS

### *Techniques and tools of financial analysis (methods)*

The analysis of financial statements consists of a study of relationships and trend to determine whether the financial position of the concern have efficiency been satisfactory. In the process of this analysis various tools or methods are used by the financial statement analysis.

- 1.Ratio Analysis
- 2.Trend Analysis
- 3.Comparative Balance Sheet

### *Ratio analysis*

Ratio analysis is a quantitative method of gaining insight into a company liquidity, operating efficiency and profitability by studying its financial statements such as the balance sheet.

### *Trend ratio*

Trend analysis is a technique used in technical analysis that attempts to predict the future stock price movements based on recently observed trend data.

Trend or Pattern examination depends on the possibility that what has occurred in the past gives merchants a thought of what will occur later on. Pattern investigation is the far reaching practice of gathering data and endeavoring to detect an example. In certain fields of study, the expression "pattern examination" has all the more officially characterized implications.

### *Comparative Statements*

It is a document used to compare a particular financial statement with prior period of statement. Comparative statements can be of two types:

- 1.Comparative balance sheet
- 2.Comparative income statements

*Accounting ratios can be expressed in any of the following forms:*

1.Pure (or)proportion: It is expresses as a quotient.

Example: 2 (or) 2:1

2.Percentage: It is expressed in percentage. Example: 25%

3.Times: I t is expressed as certain number of times of a particular figure. Example: 4 times.

### *Solvency ratio*

Solvency ratios are highly classified into two types. They are short term solvency ratio and long-term solvency ratio.

### *Short Term Solvency Ratio*

#### *1.Current ratio*

The year 2015-2016 to 2019-2020 shows the low current ratio and liability is lower than the current assets and also the current ratio is below the standard norm 2:1. This shows that the company does not have enough ability to pay their liabilities.

#### *2.Quick ratio*

The year 2015-2016 to 2019-2020 shows the low liquid ratio and current liability is lower than the liquid asset . The liquid ratio is also below the standard norm 1:1. This shows that the company does not have enough ability to pay their current liabilities.

#### *3.Absolute quick ratio*

The year 2015-2016 to 2019-2020 shows the low absolute liquid ratio, indicating that the firm is liquid and does not have the ability to pay its current liabilities.

### *Long term solvency ratio*

#### *1.Debt equity ratio*

The year 2017-2018 shows the high debt equity ratio indicating that the firms external liability to owner recorded claims are proportional whereas the financial year 2016-2017 shows lowest debt equity ratio indicating that the firms external liabilities to owner recorded claims are not proportionate.

#### *2.Proprietary ratio*

The all years are stable at same ratio in each and every year. So the company has a stable and secure ratio for the concern.



### *3.Fixed assets ratio*

The year 2019-2020 shows high fixed ratio indicating that working capital requirement is met out for the long term of firms whereas the financial year 2016-2017 shows the lowest fixed assets ratio, indicating that working capital requirement is not able to meet out of the long term funds of firms.

### *4.Current assets to net worth*

The year 2016-2017 shows the high current assets to net worth and the year 2017-2018 shows the lowest current assets net worth by the company.

## **Profitability Analysis**

### *1.Gross profit ratio*

The year 2016-2017 shows high gross profit ratio indicating that a high investment is made by the proprietor whereas the financial year 2015-2016 shows lowest gross profit ratio indicating that a low investment is made by the proprietor

### *2.Net profit ratio*

The year 2019-2020 shows high net profit ratio indicating that the firm has efficient management affairs towards whereas the financial year indicating that the firm has inefficient management affairs towards.

### *3.Operating profit ratio*

The year 2017-2018 shows high operating profit ratio indicates that the less percentage is required for the payment of tax, interest, dividend and retention of profit as reserves for that particular year whereas the financial year 2019-2020 shows lowest operating profit ratio.

### *4.Operating ratio*

The year 2017-2018 shows high operating ratio indicating that the firm has the high operating ability towards whereas the financial year 2018-2019 shows lowest expense ratio indicating that the firm has effective operating ability .

### *5.Return on shareholder fund*

The year 2017-2018 shows high return on shareholders fund indicates that the percentage of return for shareholders is high in the firm whereas for the financial year 2016-2017 shows that the return on shareholders fund is low that is return for shareholders is less during the year.

### *6.Return on total assets*

The year 2017-2018 shows that high return on total assets indicating that the percentage of total assets is high during the year whereas during the financial year 2015-2016 shows that the return on total assets is low that is return on total assets is low.

### *7.Expenses ratio*

The year 2017-2018 shows high expense ratio indicating that the firm has the high expenses affairs towards whereas the financial year 2015-2016 shows lowest expense ratio indicating that the firm has effective management affairs .

## **Turnover ratio**

### *1.Fixed assets turnover ratio*

The year 2014-2015 shows that high fixed assets turnover ratio indicating that the value of turnover is high for fixed assets during the period whereas the financial year 2015-2016 shows the low fixed assets turnover ratio that is the turnover on fixed assets is low during that period.

### *2. Stock turnover ratio*

The year 2016-2017 shows high stock turnover ratio indicates that the level of stock is higher during that period whereas the financial year 2015-2016 shows the low stock turnover ratio that is the stock turnover for that period is lowest during the study period.

### *3. Capital turnover ratio*

The year 2017-2018 shows high capital turnover ratio indicates that the capital turnover by the firm is high and at the same time during the year 2015-2016 the capital turnover by the firm is comparatively during the study period .

### *4. Working capital turnover ratio*

The year 2015-2016 shows high working capital ratio indicates that the capital requirement for the working of the firm is high and during the year 2019-2020 the working capital ratio is low that is it indicates that the capital required for the running of the firm is low.

### *5. Debtor turnover ratio*

The year 2016-2017 shows high debtor turnover ratio indicates that the debtors turnover is higher during the period and during the financial year



2018-2019 shows that the debtors turnover ratio is lowest.

**Trend Analysis**

**1. Current ratio**

Current ratio shows the relationship between the current assets and current liabilities. Trend percentage gradually decreases year by year.

**2. Net sales**

It is the operating revenues earned by a company by selling its products or rendering its services. The trend percentage increases in initial stage and decreases in upcoming years.

**3. Net fixed assets**

It is the purchase price of all fixed assets less accumulated depreciation. Trend percentage decreases.

**4. Operating profit**

Operating profit ratio establishes the relationship between operational profit and sales. The trend percentage decreasing gradually year by year.

**5. Net profit**

The net profit percentage is the ratio of after tax profits to net sales. The trend percentage remains unstable and decreasing during the study period.

**WORKING CAPITAL ANALYSIS**

Working Capital (WC) is the distinction between current resources versus Current Liabilities. Current Assets are those resources that will be transformed into money inside one year, while Current Liabilities are those liabilities due inside one year.

This count addresses the liquidity that an organization has to meet its commitments coming due in the following a year. Despite the fact that the sum ought to be positive, it very well may be a negative sum in the midst of misery.

**Working capital = current assets - current liabilities.**

Working capital analysis from the year 2015-2016 to 2019-2020

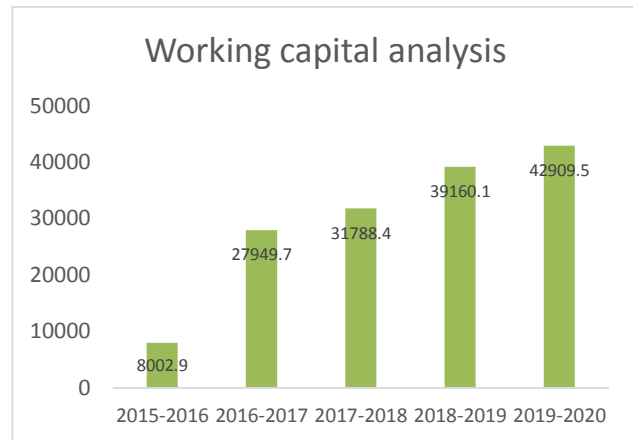
Year	Current assets	Current liabilities	Working capital
2015-2016	51814.80	43811.90	8002.9
2016-2017	66961.70	39012.00	27949.7
2017-2018	72855.60	41067.20	31788.4
2018-2019	92345.60	53185.50	39160.1
2019-2020	96862.10	53952.60	42909.5

Source: Annual reports

**Interpretation:**

The tables shows that during the study period the working capital increases during the years 2015-2016 to 2019-2020. The increase in working capital indicates that current assets is higher than the current liability.

**Chart showing working capital analysis**



**Comparative Analysis**

**2015 – 2016**

The table shows that total assets of the company have been increased by ( 37% ) in 2016 as compared to the year 2015. The liability was increased by (37%) during 2016 as compared to 2015. This indicates that the financial position of the company has increased. The overall financial position of the company was satisfactory for the year 2015-2016.

**2016 – 2017**

The table shows that total assets of the company have been increased by (4%) in 2017 as compared to the year 2016. The liability was increased



by (4%) during 2017 as compared to 2016. This indicates that the financial position of the company has increased. The overall financial position of the company was satisfactory for the year 2016-2017.

#### 2017 – 2018

The table shows that total assets of the company have been increased by (13%) in 2018 as compared to the year 2017. The liability was increased by (13%) during 2018 as compared to 2017. This indicates that the financial position of the company has increased. The overall financial position of the company was satisfactory for the year 2017-2018.

#### 2018 – 2019

The table shows that total assets of the company have been increased by (24%) in 2019 as compared to the year 2018. The liability was increased by (24%) during 2019 as compared to 2018. This indicates that the financial position of the company has increased. The overall financial position of the company was satisfactory for the year 2018-2019.

#### 2019 – 2020

The table shows that total assets of the company have been increased by (15%) in 2020 as compared to the year 2019. The liability was increased by (15%) during 2020 as compared to 2019. This indicates that the financial position of the company has increased. The overall financial position of the company was satisfactory for the year 2019-2020.

## V. FINDINGS AND SUGGESTIONS

The company should improve its liquidity position by raising the absolute liquid assets such as cash in hand, bank balance and marketable securities. To increase its production capacity and minimize mistakes while performing the tasks, also more safety precaution need to implement to the company. Not better liquidity position in over the five years. So I suggested that the firm maintain proper liquid funds like cash and bank balance. The firm high stock so I proposed that the firm should lessen the stock by increment deals. The organizations ought to have legitimate mind the assembling cycle of the plant. The organizations have high current proportion so it is steady its present proportion. Liquidity proportion of the firm isn't better liquidity position in ludicrous years. So I proposed that the firm keep up legitimate fluid

supports like money and bank balance. The firm high stock so I proposed that the firm should decrease the stock by increment deals.

The direct material cost of the firm is very high so its my advice to the firm that to decrease the direct material cost by purchasing raw material from the other suppliers. The firms should have proper check on the manufacturing process of the finished goods. By increasing the operating profit the firm can increase its return on investment. The gross profit ratio can be improved by increasing the gross profit and the factors decreasing the gross profit ratio should be thoroughly checked whether they are operating factors or any misleading factors from time to time. The working capital management system of the company more effective for its successful survival in the competitive business world.

The company must adopt and use various scientific methods of working capital management so that the current assets are to be maintained at optimum level.

## VI CONCLUSION

This study was conducted to find out the financial position and profitability of TITAN COMPANY LTD. On studying the financial performance of TITAN COMPANY for the period of 2015-2016 to 2019-2020, the study reveals that the financial performance of TITAN COMPANY is stable in its financial status.

TITAN COMPANY have to maintain optimal cost positioning. It is evident from the study that the company is not making as much profit as it expected over the years and hence the company internal operations has to be improved to gain better net profit. The company was unable to meet their entire requirements for capital expenditure and higher level of working capital commitments with higher volume of operations and from its operations cash flow. The company is more dependable on the public investments than their own contribution to improve their financial position the company must raise the capital to depend on the owners fund.

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# IMPACT OF VIRAL MARKETING ON CONSUMERS BUYING BEHAVIOUR TOWARDS COIMBATORE CITY

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## ABSTRACT

*Viral marketing helps the consumers in order to promote and increase visibility of the site in search engines more often. When people forward messages with links to their friends or when they encourage their friends to visit specific links or websites on the internet, or when they share videos among themselves they could be presumed to be practicing viral marketing. YouTube may be considered to be the best example of internet viral marketing. To improve the attraction of the sites of network and to enhance their effectiveness as marketing tools, videos are embedded. Viral marketing influence more people to buy than most other forms of marketing. When a message is coming from friends or family you have a relationship with the validity for the message is valued much higher. Humans are individuals and their behaviour greatly influences each other. So we are going to see their buying behaviour depending upon viral marketing.*

**KEY WORDS:** *Viral marketing, consumer, viral messages, buying and behaviour*

## 1. INTRODUCTION

Internet we use in our everyday lives. We are the first generation that grew up with using it and we will not know the impact of this. I have chosen the topic of viral marketing is because to find the effect of viral marketing on consumers buying behaviour. The social media has grown and we just as the majority of our friends, family and relatives are all using different types of social media everyday. The social media is an advertising tool in which the number of viral messages being unveiled to the social media users has grown enormously.

The viral marketing is existing through use of digital networks in our world, which are relatively inexpensive, fast, and easy to use, and it easily attracts global consumers. A viral message naturally circulate among persons to person with the common behaviour or interests where viral marketing exploits social networks by encouraging customers to share product information with their friends, family and colleague. The technique is valuable for both consumers and companies. Consumers get things through viral messages, such as discounts, free products, valuable information and the brand of the

products etc, which makes consumers to choose what their needs.

The viral marketing helps the organisation in order to promote and increase visibility of the site in search engines more often. When people forward E-mails with links to their friends or when they encourage their friends to visit specific links or websites on the internet, or when they share videos among themselves they could be presumed to be practicing viral marketing. Youtube may be considered to be the best example of internet viral marketing.

Social networking websites promote online business, which mostly attracts the consumers/buyers through viral marketing. Among them Facebook, Twitter and Whatsapp have been considered to be the excellent platforms for viral marketing campaigns. Social websites and forums connects people. Forums can be found on a wide variety of websites. There are search free forums available only to promote the product marketed. In online shopping environment, a website interface serves as the online storefront for customers to interact with the online retailer, and to experience and evaluate the quality of service manifested by the website design. The website design



interface plays an important role in online purchasing during customers initial experience with an online retailer, as the website design elements and the interaction experience influence customers initial beliefs and subsequent behavioural intention and customers are more likely to visit and buy from better-designed websites.

## 2. STATEMENT OF PROBLEM

The advertisements or images on social media that seem to reach hundreds and then thousands and then millions of people by their comments, likes, and shares. The video, posts, blogs, etc., that spread like wildfire across social media networks are part of viral promotion, a form of content marketing that can be extremely successful for all products. We wanted to investigate how the consumers buying behaviour act gets affected while exposed to viral messages.

## 3. OBJECTIVES

To understand and examine the impact of viral marketing on consumer.

To empirically analyze and the effect of education qualification on the consumer behaviour towards viral marketing communication.

To understand the most important factors which will influence the perception of consumers on viral marketing.

To know the consumer attitude towards viral marketing messages through social media.

## 4. NEED OF THE STUDY

In this study, with its quantitative research it will be investigated how viral marketing in the form of viral messages through different concepts, social medias, people listen and talk (word of mouth) and the power of viral marketing affects the consumers buying behaviour act, and if it affects it at all. The main intention for companies is to get consumers to make an actual purchase and in this dissertation investigate how viral marketing affects the consumers buying behaviour.

## 5. LIMITATION

The study is restricted to Coimbatore city only and hence the result cannot be generated to other areas. Internal prejudice of the respondents serves as a limitation of the study. Due to time constraints, the number of respondents taken for the study is limited to 100.

## 6. TOOLS OF THE STUDY

The tools used for analysis are

- Simple percentage analysis
- Rank analysis
- Chi-square test

- Weighted average analysis

## 7. RESEARCH METHODOLOGY

A research design is purely and simply the frame work for a study that guides the collection and analysis of data. The research design is descriptive in nature.

### AREA OF THE STUDY

The study is undertaken in Coimbatore city.

### SAMPLE SIZE

The study is restricted to 100 respondents.

### SAMPLING TECHNIQUES

Convenience sample technique is used for the study.

### PERIOD OF THE STUDY

The period for the study is 4 months i.e. January 2021 – March 2021.

### METHODS OF DATA COLLECTION

Questionnaire method is used to collect the data from the respondents.

### SOURCES OF DATA

The study is based on primary data and secondary data.

The primary data had been collected from the respondents through questionnaire.

The secondary data had been collected from articles, books, magazines and newspapers.

## 8. VIRAL MARKETING

Viral marketing is a phenomenon that passes along messages like viruses from one member to another inside a network framework. The customer is the transmitter of the message and the receiver is encouraged to pass the message forward to others. The strength of viral marketing lies in the power of the message and the willingness for customers to share it and forward it to other people. Viral marketing has the opportunity to reach a huge number of potential customers at a minimal expenditure.

Viral marketing has proved to be a low cost effective tool for online promoting using individuals to send emails to friends and colleagues without the involvement of the company. Off the Internet viral marketing is called word of mouth (WOM). This is the same concept as viral marketing, but the people spread their word and pass along messages to each other oral instead of online.

Many companies in all business sectors have successfully adapt viral marketing strategies to gain brand awareness. It is necessary that the message should be easy to share and it wakes a strong response in the consumer's emotion, which results in the forwarding and sharing of the message in their social network. "Ultimately, for viral marketing to work, it all comes back to the power of people's



emotions and the ability to affect it so information can be shared with others who are like-minded”.

It is very important to design a good message for the products because this raises the opportunity for it to become profitable. It is hard to construct a successful viral message, but if you succeed with it you can get a big success from a small investment. The AIDA model is a well-known model, which can be used to influence consumers purchasing behaviour. A viral message according to AIDA has a good chance to take the consumer all the steps from awareness of a need to purchase decision in the consumer buying process. AIDA(S) stands for

getting Attention, maintain Interest, arouse Desire, obtain Action and Satisfaction.

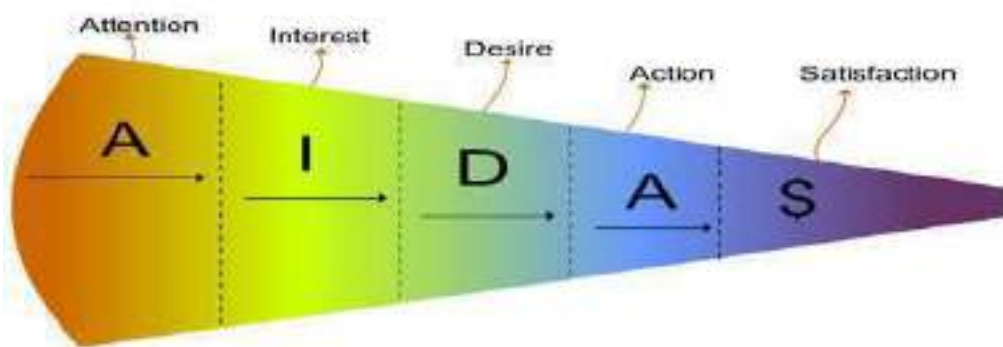
**A** : A good message with the product in the centre catches the people **Attention**.

**I** : A strong headline and letting people know they can afford it creates an **Interest**.

**D** : Make the customer wanting it and how it will satisfy their life. To create a **Desire**.

**A** : Tell the customer how easy they can get it, **Action** towards purchase.

**S** : Make the customers **Satisfied** so they will recommend and pass along the message to others such as friends and family.



## 9. POWER OF VIRAL MARKETING

The viral marketing concept is to get customers to pass along messages to other people. The company influences the message just in the beginning of the campaign, then when the virus is taking over the companies holds little control over to who the message is being spread to.

Consumers will share their opinions towards brands with or without this being known from the companies. The power of a negative or a positive opinion towards a brand is of highly importance. Companies are therefore very interested in positively influencing the message being advertised through integrated viral marketing strategies.

It is important that marketers and companies understand how the word of mouth is affecting their information about products, brands and firms. If a message gets a positive effect through a viral marketing campaign this can be spread very fast and maybe lead to a purchase in the consumers buying act. On the other hand a negative word of mouth can be spread just as fast but instead maybe push the consumer further away from a purchase in the consumers buying act.

## 10. CONSUMER BUYING PROCESS

The main intention companies have is to convince consumers to make the actual purchase. The consumers buying act is an important concept because of its key impact on a company's performance. It is beneficial for the company's marketing strategies to understand the consumer's behaviour. This is done by understanding issues such as how consumers are influenced by his or her environment such as culture, family and media. How customers think and feel and select between options and to understand consumers shopping behaviour and their buying decisions. A definition of consumer behaviour is "The study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society".

The consumer buying process starts with that the buyer recognizes a need. The customer wants to satisfy this need and goes to the second step "information search" where the customer tries to seek information of value about the product or the service. The next step is "Evaluation of alternatives" where the consumer assesses the value of the different alternatives he or she has found. The fourth step in the



consumer buying process is the “purchase decision”. At this stage the consumer actually buys the product or the service, which we in this dissertation also refers to as the “consumers buying act”. The fifth and also the last step in the consumer buying process is the “post purchase behaviour”. Here the consumers take further action after the purchase based on if they are satisfied or dissatisfied.

## 11. FINDINGS OF THE STUDY

1. Majority (44%) of respondents are in the age group of below 25 years.
2. Majority (54%) of the respondents are male.
3. Majority (52%) of the respondents are under graduate level.
4. Majority (33%) of the respondents are belongs to the employee.
5. Majority (60%) of the respondents are from the urban area.
6. Majority (46%) of the respondents are belongs to the below 20000 rupees.
7. Majority (35%) of the respondents prefers youtube.
8. Majority (40%) of the respondents visit social media often.
9. Majority (70%) of the respondents prefers online shopping.
10. Majority (34%) of the respondents react not often to viral messages.
11. Majority (52%) of the respondents share the viral messages to all the members.
12. Majority (28%) of the respondents share viral messages to share valuable information.
13. Majority (57%) of the respondents share through whatsapp.
14. Majority (76%) of the respondents buy a product after hearing it from friends or family.
15. Majority (91%) of the respondents tells about a product after buying it online.
16. Majority (67%) of the respondents buy the product towards positive review.
17. Majority (57%) of the respondents didn't buy the product towards negative review.
18. Majority (70%) of the respondents open the promotional messages from reputed organisation.
19. Majority (27%) of the respondents gets affected by resources (time, finance, etc...)
20. Majority (26%) of the respondents gets affected by search for the alternatives.
21. Majority of the respondents preferred the television as first rank and the facebook as second rank.
22. There is no relationship between the age and the respondents social media preference.

23. There is a relationship between mode of buying of the respondents and the salary.
24. Majority of the mean score level 3.60 belongs to respondents exposure to viral messages is based on review by others.

## 12. SUGGESTION

The viral marketing through social media platform attracts maximum number of customers towards it. Customers buying behaviour changes person to person based upon their educational qualification towards viral marketing. Customers buying behaviour changes person to person based upon their age factors towards viral marketing. Customers buying behaviour changes person to person based upon their residential area towards viral marketing. Research findings showed that online viral marketing has a significant and positive effect on the online shopping behaviour.

Customers buying behaviour changes person to person based upon their gender towards viral marketing. The viral marketing is relatively inexpensive, fast, and easy to use, and often include global consumers. Through viral marketing customers attitude towards buying a product increases tremendously.

Sometimes while spreading the viral messages through social media the business persons face some problem due to prior fake messages were spread by the fake marketers regarding the price, product information and quality etc., before launching a product. So it will affect the business while promoting new a product by a business person.

## 13. CONCLUSION

The investigation about the study showed that there is a significant and positive relationship between the viral marketing and the purchase decision.

The research found that the customers attain their benefits of viral marketing through social networking websites and other social media such as Facebook, Twitter, Youtube, and individual blogs.

People listen and talk (word of mouth) shows that it affects the consumers buying behaviour act. They used to forward viral messages to other people around them they have close relationship to. The majority of our respondents also tend to listen to the people around them, especially when it comes from a trustworthy source such as friend, family and work colleagues.

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## **GENESIS OF THE ORIGINS OF THE UZBEK PEOPLE'S VIEWS ON FIRE**

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### **ANNOTATION**

*This article focuses on the mythological reflections of the Turkic peoples on fire, heat, the roots of ancient views.*

**KEYWORDS:** *fire ash, Khizr, Avesto, ritual fire, Zardusht, grandfather peasant, Olouddin, Muqanna, afsona, Ibrahim, fireman.*

### **DISCUSSION**

There are such traditions that are inherited from our ancestors, deeply immersed in the spirit of our people, and even having risen to the level of believe, no power can lose them. One such tradition is the belief in the cult of fire.

Mythological views of the people about the "flame sponsor" were the basis of the origin of the mythological image of fire. People imagine that the fire will always support people in their activities, their lives, the profession they are engaged in.

Reviews about the cult of fire are very ancient, they go to the pre-Islamic religious-mythological concepts. More precisely, its root is adjacent to the animistic imagination, which consists in trust in spirits.

Reviews about the cult of fire are one of the most common phenomena in the world mythology.

Ancient myths say that fire is formed from water. Especially the philosophers of the Indian Upanishad doctrine believe that fire circulates like water in the universe.

Again man was wounded from the fire, because his body was hot, when he died, his fire in his body was considered extinguished.

Khizr is one of the traditional images of Turkic peoples created not only on the basis of their mythological views on the water of life, fertility, greenery, fire, heat. The image of Khizr reflects the ancient views of our ancestors associated with the awakening of nature, the worship of water, fire, plants and the spirit of ancestors.

According to Azerbaijani scientist M.Seyidov, the etymology of the word Khizr is associated with the words "Fire", "Grass"(plant).

Some folklorists considered the God of Khizr summer (Capricorn), the source of all grass-fire, more precisely, historically this image is the goddess of the sun. The very basis of the fact that Khizr came to the hero as a sponsor in the "Gurugli" epics is also the fruit of this system of dilemmas. It is from this that in the beginning of the saga The Son of the Goddess of the sun with a beak is indicated.[1] some scholars consider the name of the Gurugli as "the son of the fire", that is, the son of the fire.

According to some scholars, the word "khiz", which means "heat", "fire power", was the basis for the origin of the term "Khiz", and the word "ar" was added to it, meaning "husband", "man", "human".[2]

In ancient Greek myths, fire is indicated as a piece of the sun. It is told that Prometej took him from the sun to the Earth.

In Avesto, Mitra is indicated as the god of the sun. He is a symbol of happiness.

In the legends about the "creation of man", it is told that the devil and the dev-fairies did not want to worship the one who was created from the Earth because they were created from the fire.

Ethnographer Y.V.Ivanova in the article "ceremonial fire" considered the sun – sky, lightning – the flames between the Earth and the sky for the ancient people, they always interacted. Some scientists write that the cross, which is a symbol of



the Christian religion, also came from an ancient artifact made for the appearance of fire.

Duck the fire, worship in it-the Zardusht religion, is also very developed in the life of the ancient Turkic peoples. For example, according to Narshakhy, Muqanna herself throws herself in a heated oven for three days. The reason is that he wanted to go out into heaven and bring the Angels of fire and defeat his enemies.

In the science of ethnography, it was found that the spirit of being the owner of the furnace was consecrated as a feminine gender.

The cult of fire is associated with cultism on trees and, most importantly, with the cult of fertility – about Allah in the surreptitious of Yasin of the Koran: "he is the one who has brought forth fire for you from a lush tree."

According to the interpretation of S. Sh.Chagdurov, the letter-fire, and the suffix of the letter-fire, is an ancient Turkish word – fire mistress.[3]

It seems very obvious in Uzbek fairy tales that a woman is a mistress of fire. In particular, the details of the magic candlesticks in many fairy tales and the fact that the hero (usually girls), who came to the front of the old woman, who was afraid of the flame, sucked blood under the pretext of paying attention to hair are traces of the cult of fire. This old woman is the goddess of fire in ancient tassels, the girl who came to her is a symbol of the burnt sacrifice.

They also use fire ash in farming a lot. Traces of this appear bright in the game "grandfather peasant", which is now preserved among the children. According to the game "grandfather peasant", in which children gather around the campfire in the spring and summer evenings and play with a round drying, they will come before them until the grandfather peasant boy, dressed in special clothes on the branches and leaves, raises another small child on the shoulders, asks for service. Children wish a blessed harvest from him. And the grandfather peasant bargains with the children for this. Until he bargains, the boy on his shoulders – his "son – will flee to fall into the symbol of the harvest". Grandfather farmer chases after the "harvest". He tries to look for it. But when he cannot look for his son, he will push him away from the children who are sitting and make a dagger for them. A stone to the flounder will throw all sorts of crutches, splashing his Sparks on all sides, trying to scare away those who sit down. But those who sit, raise their shoulders back and run to each side with laughter. Grandfather "dies" in the grief of the peasant son suddenly fell. But he a little later again, laughing is going to get up. In this way, it is pointed out that nature "dies" again – the peasant season is renewed every year.

In order to put the guilt of those suspected of theft on his neck, the buryats feared that the thief would be "burned in the fire of the red wolf". In finding the Thief, The Wolf's wool was put on fire and the azayimhan was made. From this, it was believed that the thief will suffer by keeping him in captivity, and he will return what he received. Even as a result of that those thieves are likely to gain irreparable suffering.

In the marriage, women clean the fat pots in the fire. It is difficult to say for sure how much it is vital or on a magic basis.

The ancient people called the flame red, dark yellow, the mountain visible from afar black. They did not say their original name openly because of the taboo. And, according to Russian fairy tales, the epithet "gold" expresses in itself the meaning of the color of the sun. There is also a soul in this opinion. Perhaps, during the reign of the religion of Zarathustra, people worshiped the fire and the sun, which was considered a high source of it, seeing in the embodiment of each creature its manifestation, one could have artistic expression of this state through the attributes of gold and gold.

In fairy tales, it is not surprising that the magic lamp is associated with the name of Olovuddin. It is known that this lamp brings happiness and luck to the hero initially. However, once the evil one steals it, The Flame will again remain in a difficult place. He will help the slave of the magic ring in getting the Magic Lamp back from the evil one. Olovuddin again achieves the capture of his cherished magic lamp, his wife-Queen, a beautiful castle.

The Olovpolvon in the fairy tale "Olovpolvon" also has a mysterious power.[4]

The fire served as one of the necessary magic tools in the treatment rituals that were held for patients from ancient times.

Paganism was a religion that made part of the people of Iran and India. The gentiles studied the views of the ancient philosophers about creation, good and evil, who saw how the heat of fire affects life and existence, as well as regarded it as divine power as a power that brought life to the field. In particular, the gentiles, who are a branch of the Brahman, widely spread in India and its environs, worshiped the fire, the cow, the crocodile.

The zardushtids accepted the flame as sacred. Even those who saw the fire directly as their Lord. After that, paintings of worship on the fire appeared. Since the fire-worshipping Gentiles accepted the flame as a symbol of the good God Hormuz, they made a place in every synagogue, which is called a firehouse and is constantly lit by fire. They did not extinguish this flame at all. Fire extinguished flames were considered very sacred.



Since no one can touch them, and even breathe next to them. It is for this reason that the fire-loving monk holds gloves on his hands and a mask on his mouth while walking. The Gentiles paid attention to the fact that the fire was burning without turning off, because they believed that the God of charity could not be defeated by the God of evil at the time of burning. According to legends, it is only said that on the night of the birth of our Prophet Muhammad, the fire of the Gentiles, which has been coming for thousands of years, has been strangely extinguished.

In the Legends spread among the Iranians, it is stated that Ibrahim alaihissalom burned in the fire, but the bonfire turned into Gulshan. The impossible people do not draw the right conclusions from the sayings of Ibrahim alaihissalom, but move to the use of force after they are engulfed by the persistent habits of the unbelievers, in a rational and logical dispute. About this, Sura An'am said in verse 97 that the guilty idolatry people said to one another, build a place where Abraham would have a great camp to punish him, and set fire to him, and throw Abraham into the camp. Indeed, the polytheists burned a great campfire and threw Abraham into that campfire.

"We said, 'O fire, be cool and health to Abraham, you!'" We said -- it is said in verse 69 of Surah Anbiyo. The fire was cool to Abraham alaihissalom, health, and did not cause him any contempt or harm.

In fact, Allah Almighty has given the character of burning to the fire. When a fire touches something capable of burning, it burns. People who saw it say that the fire burned something or something. In fact, fire is a cause, and in truth, God is burned. Because in this world everything happens by Allah's command. If the burning was the work of the flame, it would have burned everything. But even if the fire touches many things, it will not burn. Also, some things that are worthy of burning will not burn if Allah does not want to. Such supernatural circumstances have been emerging to be the right concept that fire burns Allah in place of the wrong idea that fire burns in humans.

Usually, fire burns a person, too. Therefore, the polytheists thought that if we set Abraham on fire, he would be burned, and we would be saved from him, and he threw the man into the fire. But he who gave him the feature of burning into the fire:

"O fire, you be cool and health to Ibrahim!" that will command.

Then the burning property of the flame disappears, and instead comes the coolness property. The fire gives not only coolness, but also health for Ibrahim alaihissalom.

The burning motivation of the man who entered the fire is "Alpomish" poem. When the Alpomish is burned Surhayl, it does not burn.

If a person dies in a burning fire in a dream and burns, he will have received a message of his own death.

There is also a wide spread of applause among the people that "let him save himself from grass ballads, water ballads, untimely accidents, slander".

The seizure of the flame also led to him being in a relationship with the taboo. The taboo on the fire led to the keeping of his name a secret. Therefore, the influence arose from various puzzles about fire, smoke, lamps and fuels among the people. For example, about the grass-fire "Will lick, will eat", about the grass-fire "take if the dish is full pomegranate", about the spark "will fly out of the skiing, look, will blind", about the smoke and the fire "black husky climbed, stayed in the house of the red husky", about the lamp "fills the house – a head", about the candle "flashes eyes, puzzles like "blue goat behind the wall" on the ashes are created. [5]

There is also a folk transplant, which is said about fire and its analogues. It tells the story: "the smoke is pouring into the fire and he says: "Mom, even if I'm your daughter, why do I always poke, and you are shining and burning, what is the reason for this?"

He replied, "My daughter, this business is not a new business, in the world a person shines with his own brilliance. In order for the child to be bright, it is not enough for him to have one bright parent as a child, that is, only a person with such beautiful qualities of a noble virtue parent will not be like them. The child himself must be able to earn virtue. Only then does he shine a child, burning like a drowning."

Contribution: it is not his lineage that causes the child to be noble, virtuous, his own enthusiasm and courage.

Сouple: Киши ўз шaмини ёндирмас эса,  
Ёруғликнинг нишонини кўролмас.

It is known that in folk performances he shows fiery nags, that is, he shows people to swallow the fire in his mouth and watch him come out of his mouth again. Especially this watch is very fond of children. Taking into account this, the puppet theater "Kachalpolvon" presents the image of a fireman in the plot of performances. In it, the corfarman whistles the chirping and thus appeals to the firemen:

Otashxo'r-e, otashxo'r.

O'ynab, o'ynab chiqaz-e.

Otashxo'r-e, otashxo'r,

Kuyub qolma, hazir bo'l-e!

Otashxo'r-e, otashxo'r!

Well, fire is one of the four most important elements in nature. It is impossible to imagine life without fire. The life of all people is directly connected with fire. After all, a person eats his own



bread, his food cooked on the fire. So, fire is necessary for a person. Especially in winter you cannot live without fire. Similar life bases have been brought from ancient times to the fact that our ancestors understood the flame as a close companion, guardian, and glorified it. As a result, many traditions associated with the cult of fire arose. Many traditions, rituals and holidays, vital concepts of mankind are directly related to fire.

Both the one who has fire and the one who destroys. Therefore, from time immemorial there was a dualistic (two kinds: both positive and negative) attitude to the fire. He is a water-contrary element. Because water can extinguish the fire.

In conclusion, we must say that fire is one of the four most important elements in nature. Thanks to this, he has always been in the people's attention. In many folk songs, the image of fire manifested its unique facet.

2. It is observed that the fire rises from the metaphor to the level of the artistic image. It is one of the traditional images that reflect a specific meaning, a sign, a symbol, a philosophy.

3. Among our people there is a system of philosophical views connected with fire, and their origin goes back to the mythological concepts of primitive people. In Uzbek folk poetry, the poetic expressions of the fire cult are very strongly preserved.

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## **THE POLICY OF SOVIET POWER TO LISTEN IN UZBEKISTAN AND ITS CONSEQUENCES (ON THE EXAMPLE OF THE KASHKADARYA OASIS)**

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### **ANNOTATION**

*This article discusses the Soviet policy of deafness and collectivization in the Kashkadarya oasis and its consequences, the contradictions among the population, the recruitment of young children as spies among the ear farms, in particular, the social life of the population.*

**KEYWORDS:** *Kashkadarya, politics, district, district ear, exile, ear, farmer, land, farm, crop, livestock.*

### **DISCUSSION**

In Uzbekistan, an impartial assessment of the history of the Soviet period increased in the following years. Because in assessing the historical processes that took place in the scientific work of the Soviet period, a one-sided approach prevailed. In Uzbekistan in the following years, certain studies have been carried out to collect, listen and study the fate of those exiled in this process. But to this day, the issue of the policy of collusion in the Kashkadarya Oasis and its impact on the social life of the population determines the relevance of the topic, which has not been specially studied on the basis of new approaches based on the theoretical methodology of historical science. Land-water reforms of the Soviet government were carried out later than in other regions in the Kashkadarya region. It remains to be said that in the process of colliding in the region, it became necessary to study such problems as poor batraks leadership, the establishment of farms in large areas with low-number members, the course of the Resistance Movement.

The term "ear" is actually an Uzbek interpretation of the word "ear" in Russian. The "ears" were those who, a few years ago, took the land and lived in the administration, evading their labor... both for the religiosity of our ancestors, and for the reverence of administrative requirements, and for

their personal adoration, " describes the well-known scientist R.H.Aminova[1].

"Who is the ear"? researchers from different states have expressed different views on the answer to the question " what is the difference between the two?". Among them, especially the Russian researcher A.N.Y.Solopov and Uzbek scientist B.Rasulov's thoughts are noteworthy. A.N.Y.Solopov believes that those who do not recognize the working-peasant government, those who control the old system, those who use the power of the alien for the purpose of raising wealth, those who choose a trade route instead of improving their own economy and looking for a light income, can be called "ear", analyzes the activities of the working groups. B.Rasulov " analyzes the determination of ear farms in Uzbekistan on the following grounds. That is, such as the basis of legal grounds, Economic (by term and quantity), social (mercenary Labor, the use of the labor force, religious activity) [2].

In 1930 30 January of the Political Bureau of the VKP(B) MK adopted the resolution "on the measures to end the ear farms in the front collocation zones". According to the documents of the Soviet government, the ears are divided into three categories. The first category included anti-terrorist ear activists, participants of terrorist acts and anti-Soviet riots, who were sentenced to shoot. The second category included the rich and some middle-



class peasants, who were exiled to distant areas of the Union. The ears that fall into the third category are punished by moving from their place of residence to newly mastered lands[3].

The Soviet authorities did not spare anyone in the way of consistent propaganda of their ideas. The leaders of the Bolshevik party have escalated the process of collusion with the idea that "the collective system of land use facilitates the management of the rural population." Individual peasant farms, the property of the energetic social layer of the village was forcibly seized.

During the hearing, he went from the confiscation of the property of the "culprits" to the deprivation of electoral rights, imprisonment and exile. In order to prevent these situations in the process of collusion in such republics as the Uzbek SSR, the Soviet government announced its decisions on preparation for collocation events in February 1930. To do this, it was necessary to improve the mutual relations between batrak and the middle states, strengthen the work of lower party organizations, cleanse Soviet bodies from "alien" elements, apply initially simple forms of cooperation[4].

The Soviet government took measures to mitigate the situation VKP (b) in the directive documents of the KP MK, it was said that the measures to collide and listen were carried out slowly, and preparations were made for the construction of collective farms for the preparation of poor-batraks and middle-state peasants for colliding[5].

On March 1, 1930 in the Soviet government's decree on agriculture, in the process of collusion, the peasant was taken to the farm equipment, cattle, chickens in some collective farms, although it was established that the farmer would leave the farmland himself, his settlement, ordinary equipment, cattle, small cattle, domestic poultry. This was also criticized by the Soviet authorities[6]. They realized that the conduct of their work in this case would lead the people's masses to the deterioration of their dissatisfaction with the Soviet government, to the collapse of the union between the workers and the peasants.

The colliding action was carried out in all districts of Kashkadarya region. Only in 1929, the region's Kanan district 8, in Yakkabagray 13, in Kitob 15, in Shahrisabz 15 new collective farms were created. At the end of the year, the number of collective farms in the Kashkadarya region reached 94 units. In the village of Karshi district Ertepa, the first company was initially presided over by Ahmed Haji, and later by Bodomoy Yuldosheva. The collective farm established in the village of Nukrabad is chaired by Doniyor bobo, who later passes to

Afghanistan because of the oppression and tyranny of the Soviet government. The first collective farm, founded in 1929 year in the village of Sakhtapiyoz, was named Engels, and Kurban Kadyrov was appointed chairman. The collective farm was later headed by Avaz Uljaev, Kuvvat Kadyrov, Yahyokhon Asadov. In 1930 year in the village of Kipchak of the district, the collective farm "communism" was formed, which was first chaired by Zoirov, then by Abdivohidov, Hamro Bazarov. Later the collective farm was added to the collective farm "culture" in Mirmiron[7].

Collective farms were forced membership of individual peasant farms to various forms. Even if the peasants did not participate in the meetings dedicated to the establishment of the collective farm, then the decisions of the meeting were made on the fact that they were included in the collective farms. The husband of individual farmers, agricultural inventories were even common until their housing. Such activities were carried out not voluntarily, but on the basis of coercion in the way established from above. And whoever opposes it, they were punished. In this way, the slogan of ending the ears as a class was pronounced. The headquarters, which was established in the process of collocation, became the head of measures to forcibly annex farmers to collective farms. The peasants were attacked and harassed. Full confiscation of the property of rich farms, deportation of families of "ears" to other lands was carried out on the basis of mass lawlessness. Under the guise of fighting "ears", a gross war was declared against mainly entrepreneurs, business peasants. In most cases were "ear" in the middle condition peasants. When determining the "ears", they were evaluated not socially, but in most cases, depending on the state of the farm. All these events aggravated the political situation in the villages, culminating mass protests, the coming out of the regiments.

Well, the policy of collusion of the Soviet state was the product of the ideas of the Bolshevik party, in which the specific features of the territories, without taking into account the national sentiment, were mainly in the character of coercion and tyranny.

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# THE CONCEPT AND ESSENCE OF THE METHODOLOGY OF FORMATION OF TRANSLATION COMPETENCE

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## ABSTRACT

*The article provides an overview and explanation of learned linguists with brief explanations and recommendations, with theoretical approaches, general principles about the concept of "translation competence", which is currently widely studied and promotes concepts in linguistics as well as in preparation for the training of qualified personnel in translation activities, which is currently a relevant topic in the field of Uzbek translation.*

**KEY WORDS:** *translation, translator's competence, types of competence, language norms, semantic content*

## INTRODUCTION

Traditional education framework in the form of knowledge, abilities and skills should be revised taking into account the importance of the competence approach, which reflects the needs of society in training not only a knowledgeable specialist, but a professional, able to apply his or her knowledge efficiently [13]. This paradigm of education is influenced by tight labor market, which is characterized by fierce competition, resulting in the need of professional training a versatile individual with a set of hard and soft skills meeting the requirements of the changing environment. The professions of translator and interpreter are in demand on our labor market, though the requirements to the applicants have greatly changed, they have experienced certain transformations in recent years. This process contributes to the development of a specific transformed concept of translator/ interpreter competence, which is the target of professional training. Taking into consideration the necessity to adjust to the changing conditions, it should be noted that we are temporarily left in legal limbo due to the absence of the Branch Standards of Higher Education [7].

Competence is set of properties and personality characteristic. Competence characterizes student ability to realize the human potential for educational activity. Competence is understood as the

personality integrated quality which is visible in the general ability and readiness for activity, based on knowledge and experience gained during the training and socialization, i.e. education, and focused on independent and successful participation in activity. Competence-based approach means gradual occupation reorientation by primary

## MATERIALS AND METHODS

Translator's and Interpreter's Competence has been in the focus of the scholarly attention paid to translator's and interpreter's activity and training; the analysis of literature on the problem (E. Alekseev [1], R. Bell [2], E. Breus [3], J. Stuart Campbell [4], V. Komissarov [9], L. Latyshev [10], M. Martinez [11], G. Miram [12], M. Orozco [13], etc.) demonstrates that Translator's and Interpreter's Competence is a complex phenomenon formed on the basis of linguistic and sociocultural knowledge and skills. The role of language, especially in translation, is indispensable in increasing the spiritual view of the individual. Therefore, as in every aspect of the present day, special attention is paid to the radical reforming, forming and developing the school of translation, especially to the Uzbek translators' school. The boundaries of space and time between nations and peoples who are different from race and religion, their thoughts and opinions can be overcome only through translation. Therefore, the selection of



works that incorporate universal ideas for translation is crucial in ensuring the success of the translator. The skillful translation is not only the author of the work, but also the author of the translation. Thus, the hardworking worker transmits the second authorizing author to the worker's life. This means that the responsibility towards the interpreter is great. Selection of irrigated works with great ideas for translation is not that difficult, but if the responsibility for its translation fades, it will inevitably have an impression of not only the interpreter, but also the author of the work. In this process, identifying original and translation examples in the work allows us to give a single idea of the author and interpreter's skill [7].

Translation is a science of friendship, the translation person is a relative, a close friend, a friend of the other person. Alternatively, translation is also an art. When it comes to art, it is not an ordinary type of art. Translation is a skill art of magic. It is a literary, personal, professional school that has a wide range of translation literature for its creators. For this reason, in the history of world literature, its translation into translation and translators are significant in terms of its richness, new products.

The growing globalization processes around the globe are becoming increasingly important for the formation and development of professional competence of translators. There will be a set of clearly defined criteria for assessing the quality of professional activity in each area.

The interpreter must have a qualification in a professional qualification and professional qualifications so that he / she can be referred to as a qualified interpreter with professional competence, including translators, in professional translators.

Professional competence and personal competence are both terms used in the software curricula and in the linguistic orientation (methodology, translation work, psychology, linguodidactics, linguoculturology, etc.), commonly used in synonyms is used.

## RESULT AND DISCUSSION

Interlingual communication defines the peculiarities of translators and interpreters activity and as a result the researchers point out a set of shared skills and abilities, they require distinct skills and techniques as well to perform their task successfully. Translators transfer the source language into the target in writing, interpreters perform it orally. Though, the first group of components is common for both groups of professionals and considering the opinion of the abovementioned scholars, it can be specified as consisting of four components: *lingual, discursive, sociolinguistic and sociocultural* [9; 10; 12; 13].

*Lingual component* of translator's/interpreter's competence includes knowledge about the system and the structure of the source and target language and rules of their functioning in the process of communication, the ability to use formal tools to operate and the rules by which linguistic units are arranged in meaningful statements.

Some scholars suggest differentiation of two parts in the lingual component, which can be considered relevant for our research, especially for interpreter's training. For instance, a famous linguist Noam Chomsky introduced his ideas as part of the foundations for his Generative grammar, but it has since been adopted and developed by other linguists. Noam Chomsky presents a concept of *linguistic competence*, which is referred to as the system of linguistic knowledge possessed by native speakers of a language. He poses the concept of linguistic competence in contrast to the concept of *linguistic performance*, the way the language system is used in communication. In the generativist tradition competence is the only level of language that is studied, because this level gives insights into the Universal Grammar, which generativists see as underlying all human language systems [13].

According to Chomsky, competence can be considered as the ideal language system that makes it possible for speakers to produce and understand an infinite number of sentences in their language, and to distinguish grammatical sentences from ungrammatical sentences. This is unaffected by "grammatically irrelevant conditions" [5]. In the process of professional training students deal with the so called "ideal language system" of the source and target languages mainly at the beginning of their training. Teachers select the material according to the level of language of their students, trying to avoid or overcome so called "grammatically irrelevant conditions", such as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying knowledge of the language in actual performance [5]. Such situation can be somewhat possible in case we deal with an ideal speaker-listener, in a completely homogeneous speech-community, who knows both the source and the target languages of the speech community perfectly, which is hardly ever realizable.

Another challenging issue concerning differentiation of linguistic competence and performance touches the difference between *language and speech*, discussed in the scholarly works [14]. It is evident that a sample of natural speech differs from normative language (the definition of which is quite disputable), consisting of numerous false starts and other deviations causing problems to interpreters. The concept of performance in Chomsky theory refers to the actual production



and comprehension of oral or written language, but it is also affected by situational variables such as fatigue and distraction. Therefore, a fundamental distinction has to be made between the competence and performance and it should be taken into account in the process of professional training.

The core components included in the speaker's linguistic competence correspond to five of the major subfields of linguistics: *phonetics*: physical production and perception of the inventory of sounds used in producing language; *phonology*: mental organization of physical sounds and the patterns formed by the way sounds are combined in a language, and the restrictions on permissible sound combinations; *morphology*: identification, analysis and description of units of meaning in a language, inflectional and derivational morphology; *syntax*: structure and formation of sentences; *semantics*: understanding the meaning of sentences [5].

In interlingual communication lexical characteristics of the source material often cause most of the problems, translator's task is to produce an adequate translation, choosing appropriate vocabulary and presenting it taking into account translation function selecting relevant strategies. This issue demonstrates a close link of lingual component with another one, considered to be of utmost importance by the scholars - a discursive component.

*Discursive component* of translator's/ interpreter's competence can be defined as the ability to communicate text and speech parameters in the subject area; the ability to plan their presentment behavior, understand and convey information in coherent, logical statements, to build and to organize statement in accordance with the purpose of communication. Similar idea is represented in the notion of *communicative competence* (coined by Dell Hymes in 1966) [6] which refers to a language user's grammatical knowledge of syntax, morphology, phonology and the like, as well as social knowledge about how and when to use utterances appropriately. Communication competence was conceptualized according to two criteria: co-orientation and coordination. Co-orientation was viewed as the ability to construct some degree of mutual understanding by using such verbal strategies as acknowledging, mirroring, paraphrasing, clarifying, etc. Coordination was viewed as the ability to construct conjoint actions or the ability to adjust one's own verbal actions to the actions of others as well as to individual and group goals. Coordination strategies included apologies, disclaimers, defining the situation strategies, meta-accounts, etc. The lack of co-orientation and coordination is usually associated with frequent interruptions and talkovers. These are physical characteristics of the conversation, conceptualized as asynchronous talk

and also used in assessing communication competence [6].

*Sociolinguistic component* of translator's/ interpreter's competence is manifested in the ability to perform various types of interlingual activity choosing linguistic means according to field of communication taking into account the peculiarities of social status of the partners in communication. *Sociocultural component* of translator's/ interpreter's competence includes the ability to apply various types of information about national and cultural peculiarities of the source or the target language country, the ability to build their behavior based on these characteristics and standards.

At present the scholars add instrumental competence to the list as both professionals require different types of *instrumental skills* (translators are to master software (computer added translation) and be able to work with electronic reference literature; interpreters, for instance, engaged in simultaneous translation are to use conference equipment). Interpreters should have some additional competence components, such as general knowledge, memory skills, public speaking and moral [8].

On giving a general outline of the concept of translator / interpreter competence, we come to the conclusion that lingual component of translator's/ interpreter's competence is the basic one and its formation should be the priority, thus we proceed with the analysis of Bachelor and Master Degree programs. The content of the programs will show their relevance to the identified components of translator/ interpreter competence.

Matching the subjects to *lingual component* of translator's/ interpreter's competence, the students selected Practical Course of First Foreign Language, Introduction to Translation Studies, Theory and Practice of Translation from First Foreign Language, Comparative Lexicology, Comparative Grammar, History and Theory of Translation Studies, Practice of Translation, Comparative Stylistics, Neology and Translation of Neologisms, Business Documents Translation, Law Translation, Practice of Interpretation, Practical Translation / Interpretation Training. Matching the subjects to *discursive component* of translator's/ interpreter's competence, the students selected such courses as Theory and Practice of Translation from First Foreign Language, Comparative Lexicology, Rhetoric, Comparative Stylistics, Law Translation, Business Documents Translation, Practical Translation / Interpretation Training. Among the courses relevant to the formation of *sociolinguistic component* of their competence, the students mentioned Theory and Practice of Translation from First Foreign Language, Comparative Stylistics, Practical Translation / Interpretation Training; *sociocultural component* is



developed by such courses as Theory and Practice of Translation from First Foreign Language, Cultural Studies, Introduction to Cross-cultural Communication, Comparative Stylistics, Practical Translation / Interpretation Training; *instrumental* component is developed by the courses of Theory and Practice of Translation from First Foreign Language, Foundations of Applied Linguistics, Practical Translation / Interpretation Training.

At the preparatory stage of the experiment students getting their Master's degrees were asked to distribute the subjects in accordance with the professional components and assess their relevance. They filled in questionnaires expressing their opinion concerning the efficiency of the program studied and their relevance to shared translator's/ interpreter's competence. The students selected certain subjects, which to their mind contributed to the formation of such components of shared translator's/ interpreter's competence as lingual, discursive, sociolinguistic and sociocultural. The results of the opinion poll concerning the analysis of Master's Degree Program shared Translator's/ Interpreter's Competence Components and relevant courses are the following.

Matching the subjects to *lingual component* of translator's/ interpreter's competence, the students getting their Master's degree selected such courses as Current Issues of Translation studies, Practical Course of First Foreign language, Practical Course of Second Foreign Language, Genre Translation Theory, Communication Strategies, Translation from the First Foreign Language, Interpretation Technologies, First Foreign Language, Second Foreign language, Practical Translator's/ Interpreters' Training. Matching the subjects to *discursive component* of translator's/ interpreter's competence, the students selected such courses as Current Issues of Translation studies, Practical Course of First Foreign

The opinion poll shows that 99 % of subjects were considered by the students as bearing direct relevance to the formation of their professional competence. Though 60% of the students expressed their request for more practical classes and admit their insufficient competence in translation and interpretation of certain materials.

## CONCLUSION

We have analyzed the major components of shared translator's and interpreter's competence. We have defined such essential components in the framework of shared translator's and interpreter's competence as lingual, discursive, socio-lingual, socio-cultural and instrumental; described their peculiarities and interrelations. We presented the content of Bachelor and Master Degree Programs of translator/ interpreter's training, established the

relevance of the courses suggested to translator's/ interpreter's shared competence components (lingual, discursive, socio-lingual and socio-cultural and instrumental). As a result of the preparatory stage of our experiment (students getting their Bachelor's and Master's degrees expressing their opinion concerning the efficiency of the program studied and their relevance to shared translator's/ interpreter's competence components) we should accept the necessity to modernize the content of translator and interpreter's Bachelor and Master Degree programs in accordance with the professional demand in the region. Possible solutions to the problems under consideration can be seen in programs updating, introduction of special elective courses, application of content and language integrated learning methodology which enables to give more practical activities meeting the needs of present demand and orientation towards global integration. In near-term perspective we are going to examine each of the components of translator's and interpreter's competence, to clarify their content and create measuring tools taking into account impact factors of the professional environment.

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## DEVELOPMENT OF WOMEN'S SPORTS IN UZBEKISTAN

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### ANNOTATION

*This article provides important information on the development of women's sports and a healthy lifestyle. The article also discusses a number of measures currently being taken to promote women's sports and a healthy lifestyle. During the years of independence of Uzbekistan, the development of sports and the formation of a healthy lifestyle has become one of the main directions of state policy. In particular, during this period, great efforts were made to develop women's sports. As a result, Uzbek girls occupy high positions in world sports arenas.*

**KEYWORDS:** *intellectual capacity, abilities and potential, exercise, healthy living, gymnastics exercises, sports development, physical education and sports.*

### DISCUSSION

At present, the competition between the countries of the world, the demonstration of strength is reflected in the demonstration of sports and intellectual potential. In particular, in all developed countries of the world, attention and love for women are paramount. The cultural level of any society on earth is determined by its attitude towards women.

Therefore, from the first days of independence, the issue of ensuring the rights and interests of women, creating decent working and living conditions for them, the realization of their abilities and potential has risen to the level of state policy in our country.

It is known that the role of women in our social life and cultural life is incomparable and of great importance. In order to commemorate the culture of ancient ancestors, to celebrate the "Year of Women" in 1999 in Jizzakh, in 2001 in Shakhrisabz (Kashkadarya region) was organized Republican Festival "Tomaris Games". It has become a tradition to hold the annual Women's Sports Decade, dedicated to the Women's Day on March 8. More than 1 million women are actively involved in table tennis, badminton, chess, checkers, rhythmic gymnastics and athletics. In 2004, at the initiative of the Republican Women's Committee and the National Olympic Committee, the Commission on Women and Sports

was established. Its main goal is to promote and develop women's sports. In order to popularize and promote women's sports, the commission held a competition "Queen of Sports", which promotes youth, beauty and a healthy lifestyle. Athlete girls have shown that they are not only strong and strong-willed athletes, but can be gentle and agile housewives.

In recent years, the state pays great attention to the development of women's sports. Sports that only women can do include rhythmic gymnastics and synchronized swimming. In 2004-2005, for the first time in the history of rhythmic gymnastics, the Sharq Guzali World Cup was held at a high level. The strongest athletes of the world, Olympic and world champions Alina Kabaeva, Olga Kapranova, Vera Sesina took part in it. Along with them, Uzbek gymnasts O.Ashaeva and Z.Muhitdinova took honorable places. Since 1998, the international competition in synchronized swimming "Mermaid" has been held at a high level. In recent years, many women athletes have achieved good results in international competitions. Such a process serves to enrich our national sports culture. At the initiative of the Women's Committee of Uzbekistan in cooperation with the Ministry of Defense of Uzbekistan and a number of other ministries, a "Women's Military Competition" was held on the



occasion of Defender of the Fatherland Day. Iroda Tulaganova, who has achieved great success in tennis, should be remembered. He was the winner of the 1999 Wimbledon Junior Tournament, a 7-time Grand Slam WTA champion in doubles.

In November 2005, the Asian Women's Football Championship was held in Malaysia, where the national team of Uzbekistan won. Young talented girls are also growing up in wrestling, football, rhythmic gymnastics, sports games and especially in oriental singles. In 2005, gymnastics began to work in our country. Its main activity is mass gymnastics performances for women of all ages, combining rhythmic sports and general gymnastics exercises and movements. The active participation of our women in all sports testifies to the fact that our women are equal members of our society.

Men's sports such as wrestling, oriental singles wrestling, kickboxing, football, and even weightlifting (rock climbing, barbell lifting) are evolving.

In 2006, in order to develop women's sports, by the decision of the Cabinet of Ministers of the Republic of Uzbekistan, 221 additional places for women were created in the UzSWLI, which were distributed by regions (91 state grants, 130 contracts). This, in turn, requires the strengthening of measures to strengthen women's health and create better living conditions for them. Significant changes in the world and the deterioration of the environment are also having a serious impact on women's health. An analysis of women's health statistics in recent years has shown that the number of diseases such as overweight (obesity), osteochondrosis (salt accumulation), osteoarthritis and arthritis (inflammation of the joints) is increasing among women. One of the main factors in this is the inactivity of women, the lack of attention to exercise. Affects women's reproductive health. In both cases, the content of exercise, various games (dances) rather than drugs has been proven in practice. For this reason, the use of physical education and treatment centers in the treatment of various diseases in the central cities is increasing day by day. "We must do everything possible to create decent conditions for more than 17 million sisters, daughters, mothers and grandmothers living in our country," said President of Uzbekistan Shavkat Mirziyoyev in his December 29, 2020 Address to the Oliy Majlis.

Continuing his speech, the President noted that the number of grants for girls from needy families for admission to higher education institutions should be doubled to 2000, and special scholarships should be introduced for girls with excellent grades and in need of social protection. The main reason for this is the need for women with higher education for all regions of the country.

In conclusion, it should be noted that the development of physical culture and sports among women, especially in the training of highly qualified specialists from local women RA Kozieva (history of physical education), O. Sobirova (swimming, deceased), K.T. The contribution of such scientists as Rakhimjanova (athletics), RA Kasimova (handball), GB Abdurasulova (fencing) is great. It is very important to increase the number of such talented scientists in the future.

Many sports federations organize special courses for women and train instructors on the ground to develop the sport. This, in turn, contributes to the development and popularity of girls' sports. In all regions of the country, including remote villages, great attention is paid to the construction of modern sports complexes, further increasing the scale of physical culture and sports among the population, especially the involvement of women, training highly qualified women. In this regard, the Resolution of the President of the Republic of Uzbekistan dated October 2, 2017 No PP-3606 "On measures to further develop the national sport of Kurash" further popularization of the national sport "Kurash" among students and strengthening a sense of national pride and patriotism through competitions, as well as promoting a healthy lifestyle among them, will play an important role in the achievement of high results on the world sports arena by student, student-athletes.

The Action Strategy for the five priority areas of further development of the Republic of Uzbekistan for 2017-2021, developed on the initiative of President Shavkat Mirziyoyev and approved on February 7, 2017, includes ... protection of motherhood and childhood, ... related measures are covered. Decree of the President of the Republic of Uzbekistan dated March 5, 2018 "On measures to radically improve the system of public administration in the field of physical culture and sports" PF-5368 and Presidential Decree dated March 16, 2018 "On measures to further develop football" Resolution 3610 has created great opportunities for physical culture and sports in our country, including football officials. In pursuance of these decisions and decrees, promising changes are taking place in the sports of our country, especially in football.

One of the urgent tasks is to acquaint our children and young generation with sports from an early age, to awaken in them a passion and love for sports, to bring them up physically and spiritually.

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## GLOBALIZATION PROCESS AND MASS CULTURE

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### ABSTRACT

*In the 21st century, in the era of globalization and information, humanity is living in a very tense and difficult period, which is changing rapidly and radically different from the period that we have experienced before. Today, relations between peoples and countries are becoming stronger, more diverse and complex.*

**KEYWORDS:** *globalization, localization, community, society, civilization, integration, development.*

### INTRODUCTION

There are different views on the essence and image of the new century. Some call it the age of high technology, some call it the age of thinking, and still others call it the age of general information. But in the minds of many, this period seems to be a period of globalization. [1]. The constantly intensifying process of globalization, which does not recognize borders and territories, systems, makes humanity think.

Another feature of the globalization process is that under current conditions it has become an extremely acute instrument of ideological influence serving the interests of various political forces and centers. [2]. If we take the process of globalization only in the field of information, its influence is reflected in the incessant struggle to lead the world, to poison the minds of mankind, especially the minds of young people.

### METHODS

Factors of globalization:

➤ economic, predetermining the perspective of the movement of cultures within the boundaries of modernization;

➤ social, predetermining the globalization of social action;

➤ a risk factor moving from local to global.

Depending on which processes - homogenization or fragmentation - will prevail in the course of globalization, the following concepts stand out:

✓ globalization based on the real diversity of the world (multiculturalism);

✓ the third direction, which stands somewhat apart, is the concept of localization as hybridization, which is an attempt to synthesize the global and the local. For the social structure, globalization means an increase in the possible types of organizations: transnational, international, macro-regional, municipal, local. Not only these types of organizations are important, but also those informal spaces that are created within them, in between: diasporas, emigrants, refugees, etc. Another dimension of hybridity is associated with the concept of mixed times: the alternation of premodernity, modernity, postmodernity. Within the boundaries of this direction, globalization is seen as interculturalism;

✓ despite a number of fruitful moments in the study of globalization, localization, the above theories have a common drawback: the problem is considered at an empirical, external, phenomenal level.

### RESULTS AND DISCUSSIONS

The material superiority of an individual community over other communities led to conflicts - an inevitable clash of interests in the possession of even greater material wealth through the seizure of foreign territories and material values through wars. Thus, technocratism stimulates the emergence of the process of globalization, on the one hand, and, on the other hand, leads to the destruction of the equilibrium of civilization based on the destruction of the



equilibrium of the world communities that make up civilization, and to the emergence of a nonequilibrium state in the development of civilization, which causes the emergence of the process of localization, the collapse of empires into smaller communities, and, in the event of an extreme state of imbalance in the social system of civilization, wars arise. On the one hand, war is a negative phenomenon as an indicator of the extreme imbalance in the development of civilization, since in war there is a tendency to achieve the material superiority of one community over others through violence. Considered in this aspect, the war is an indicator of a sharp lag in the spiritual development of the ruling community from the constantly growing material potential of this community. At the same time, war has a positive impact on advancing high technology.

The process of globalization that the world is going through today opens up great opportunities for young people. However, some forces in the world seek to further complicate such a complex world. In particular, the forces that have always amassed wealth through violence and hegemony are widely promoting the idea of "mass culture". Today, this process includes music, videos and films of various genres, TV series, colorful entertainment shows, games. Anti-culture under the guise of "mass culture" arises and spreads. "Naturally, under the cover of "mass culture" the spread of ideas of moral depravity and violence, individualism, egocentrism, and, if necessary, enrichment, ignoring the thousand-year traditions and values of other peoples, the spiritual basis of life, and dangerous threats to destroy them [4]. Modern science also recognizes that this culture is based primarily on commercial and material interests. Works that disguise "popular culture" and promote ideas such as corruption and violence, which destroy the human spirit and poison the minds of young people, have nothing to do with real culture. Unfortunately, modern popular culture as a product of the civilization of the twentieth century is understood in a narrow sense as a combination of standardized consumer goods and "free" patterns of behavior.

Today, with the development of technology and the growth of wealth, consumer psychology is becoming more and more popular in entertainment literature, shallow adventures and detective stories, books about "free love", various TV and film series, shows, etc. Unfortunately, in the face of fierce competition, some entrepreneurs have gradually created a modern anti-culture, multiplying topics that arouse low passions in a person in order to make a wax profit. This has absolutely nothing to do with not only elite, but also with mass culture. That is why one should not confuse the real mass culture with the

anti-culture disguising it. This is the demand of the times - to fight against anti-culture, its bad taste and immorality, products that offend and humiliate people.

It should not be forgotten that it cannot be denied that the undeveloped taste of some young people matches the presence of shallow foods that are common in popular culture.

Today, some young people perceive any information as an absolute truth. In addition to information that positively affects the worldview of young people, there are materials on the Internet based on destructive ideas, materials that promote unhealthy lifestyles, habits and skills. The international community is concerned about the perception of such alien ideas and information by young people on the Internet.

## CONCLUSION

The most dangerous aspect of spiritual threats is manifested in the threat to the moral foundations of society. A form of aggression against morality, which to some seems insignificant, even pleasant, is associated with the phenomenon of "mass culture". It is important to understand the difference between the concepts of "mass culture" and universal values, their purpose and essence. To minimize the negative consequences of globalization under the guise of "mass culture" and attacks of various biased, biased information, it is necessary to raise the political consciousness, legal, moral and aesthetic culture of young people.

First, young people must fight these attacks with their intelligence, knowledge, and intellectual potential. To do this, parents should consider raising children as the most important task in the family. Thus, young people will be brought up self-respecting and strong-willed.

Secondly, the Internet today is one of the media influencing the minds of young people. Young people get all kinds of information from them, read it and accept it as truth, because they have a strong sense of confidence. Therefore, it is very important to form their ideological immunity.

In a word, to educate the younger generation in the spirit of universal, national values, cultural masterpieces from childhood, to form in them a critical attitude to the attack of alien elements, certain aspects of "mass culture", anti-culture.

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## DESCRIPTION OF ECONOMICAL HOLDING OF UZBEK WEDDINGS IN HISTORICAL SOURCES

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**“Rest on the development of our  
nation there are two things to be said: This  
is a wedding and a mourning.”**

**Mahmudkhuja Behbudiy**

### ABSTRACT

*The explaining of the historical data which is about how to economically celebrate the Uzbek wedding and national feasts.*

*The scientific analyze of the historical information which are about how to economically celebrate the Uzbek weddings and national feasts.*

**KEYWORDS.** *National, tradition, custom, ceremony, wedding, entertainment in birth of child in the family, marriage, enlightener.*

### DISCUSSION

The sets of Uzbek national values also include wedding celebrations. It is known that our ancestors adhered to strictly defined customs and traditions for thousands of years, that is, they spent their good and bad days through various rituals. Information about these traditions is also brightly reflected in classical historical sources.

In particular, it was commanded in the holy Quran that "eat, drink, but do not let wasteful, after all, Allah almighty does not love wasteful". In this bible it is said that insurgency and extravagance will lead to the destruction of the entire ummah. Therefore, it is necessary to open a war against hashamats and their complications. Because not only the hashamatchi himself, but also the members of the society that has opened the way to him, all together fall into ruin[1.82].

The holy hadiths also provide the following thoughtful thoughts about the traditions and customs of our people: "giving a banquet at a wedding is the right thing", "even if a sheep is slaughtered, it is

necessary to make a wedding (feast)", "the blessing of wives is the light of the costs of marriage".

In the chapters of Abu Iso at-Termizi (824-892), the great scientist, such as "Жаноза китоби", "Никоҳ китоби", "Қурбонлик қилиш", "Ақиқа ҳақида" there are the following profound thoughts about the conduct of various ceremonies: "those who tear their collars and tear their faces and those who make the behaviour of ignorance are not among us" [2.20], "May Allah bless you, now slaughter if you are called to a wedding, then definitely go" [2. 22], "every woman who has faith in God and the day of resurrection is not subject to more than three days' mourning for the dead, but the dead wife of her husband mourns four months and ten days' mourning"[2.21].

Also, the scientist wrote about aqiqa. The messenger of aqiqa "the two equal-year-old sheep for the boy and those who ordered the slaughter of one sheep for the girl", rasululloh (s.a.v.) said: "make an aqiqa for the son of a child, "take out the blood of the sheep and take his hair" in his name[2.33], rasululloh



(s.a.v.) said: "the boy depends on his own agate, on the seventh day the sheep is slaughtered in his name, the name is put on him and the hair is taken" [2.34].

During the reign of sahibqiran Amir Temur (1336-1405), the conduct of family customs and rituals was at the level of public policy. Temurbek grandfather noted: "I paid attention to the fact that my sons, grandchildren and loved ones came and sought to marry. I saw this work on an equal footing with state chores. I asked the genealogy of the bride to be, seven feathers. Through specific people, I identified health, physical perfection. I let the bride down by giving a great wedding-performance to country without any defect with the lineage, decency, health of being a bride" [3.58].

Our master grandfather once again said: "I believed that my sons, grandchildren and loved ones would approach their wives by drinking any drops of wine. After all, under the influence of wine, I have taken this immaculate course of saying that the offspring of the child who came into being are affected by the breakage"[3.58].

Also, in Gulbadanbegim's work "Humoyunnoma", it is written that Humoyun Mirza falls in love with Hamidabonu in the Hindol palace and puts a matchmaker. But before persuading the girl, the matchmakers will have to attend for forty days. Even if our ruler Humoyun Mirzo abides by the centuries-old tradition, tolerates, patiently - keeps homage to Hamidabonu and respect for his household.

If we turn to the pages of the history of the next period of our homeland, the most important socio-political and historical phenomenon in Turkistan in the first quarter of the 20th century is the accelerated movement. The accelerated state system had embodied the ideas and concrete practical activities that set the objective of bringing society to a new level of development through the reform of governance and the development of the nation.

The enlightened intelligentsia-jadids, who grew up in our country, set the main goal of fighting against various superstitions and harmful vices in order to further increase the spiritual and educational level of our people. In particular, they exposed the conduct of flashy and luxurious wedding celebrations through their works without fail.

Articles related to this topic were printed in various publications such as "Sadoi Turkistan", "Sadoyi Fergana" of the progressive jadids - Abdulla Avlani, Ashurali Zahiri, Abdulhamid Chulpon, Is'haqon Ibrat and others. Scientists paid special attention to the household life of the people, in particular, expressed profound thoughts about national weddings and their conduct. In particular, articles on this topic of Abdulhamid Suleiman ogli Chulpon (1893-1937) and Is'haqon Ibrat (1862-

1937) in the newspaper "Sadoi Fergana", as well as the decree of the jadids' Shuroi Islamiya' organization on the regulation of wedding-celebrations in the fasting of salvation were printed.

Abdulhamid Chulpon in one of his articles in "Sadoyi Fergana" expressed such an opinion about the wasteful at weddings:"in recent days and in recent years, day by day, if it was good before, it would be a step back... There would not have been such wasted weddings in this times." In his opinion, in the nose peasants were eating during the winter with the child-tow of funds, which they developed during the summer, and in today's economic woes were added to the composition extravagant weddings.

Is'haqon Ibrat is a well-known presenter of Fergana jadidis the lesson the wasteful of weddings, excessive expenses, expressed in his thoughtful comments about the fact that young people are more inclined to various riddles than to receive knowledge: "still, if we find a whitewash without trying our religion, then will spend ten thousand wasted on hunting weddings... This condition is undeniable, it is the science... A person without knowledge means an unreasonable wall. The unreasonable wall is desperately. Read science, read, morally, modern science...". With these thoughtful thoughts, the scientist encourages young people to acquire their worldly knowledge.

For example, in the decision of the organization of "Shurai Islamiya", which was announced in the fasting of "Najot", about the regulation of wedding celebrations, such lines are written: "the s'ezd of muslims of Turkestan, taking this situation into account, is a kind of superstition and wastefulness, chunanchi, wedding-memoirs, junket... and it will be the day of the funeral, when georgon decided to end the wasteful bikullia (all)." Also, the procedures for conducting funeral, marriage, circumcision weddings are described in detail in this decree.

Such articles as in journal "Oyna", "A'molimiz yoinki murodimiz" („Oyna”, 6-7 of 1913), "Hafizi sihati oila" ("protection of family health"), (Oyna 14 of 1914) "Bizni kemirguvchi illatlar" („Oyna”, 13 of 1915) were published in the head of jadidism Makhmudkhuja Behbudi (1875-1919).

As the scientist writes in the article "Vices that bite us"... we, the city and village of Turkestan, have invaded until our semi-cultural, semi-brutal classes, wrapped up in all our lives and turned us into crisis and hell into a round wedding, and mourning the enemy of the two in Islam " [4.145].

Nationalist grandfather Makhmudkhuja Behbudi "Vices that bite us" in the article lavish wedding-memoirs, pictures and the costs of them are discussed in detail: "we need to make the wedding and bows



small and until we are in the procession, come to think of our time. For religion, for mosques and schools, you need oqcha, wealth, state, sumon (wealth). If we spend our wedding and mourning Turunians, knowledge and religion, ankarib (at a short opportunity) as a European development and self-image and religion, we will find the reputation and development. No, if we continue with our present situation, we will have no share other than the humiliation of religion and the world (ugliness) and misakanat" [4.148].

M.Behbudy also sharply criticized the excessive dabbles in wedding ceremonies in the article "A'molimiz yoinki murodimiz" (Oyna, number 6-7, 1913): "... let the wedding and blessing be done, but, as now, without wasting. And let it be made as small as possible. And let the children with excess money be well educated Muslim and Russian. To spend on mourning, let oqcha be spent on old madrasah and cemetery mosques and schools' injuries. Let the children from wedding and mourning be given to government schools, and let the students from these schools be sent to Mecca, Medina, Egypt, Istanbul and the Russian dorilfun and dorilsanat and make efforts to develop religious and secular and modern people" [4.157-158].

Based on the Qur'an and hadiths, the scientist understood the need for such rodent vices, which pose a risk of ruin to families, it was necessary to make effective use of the funds spent on excessive celebration in the field of education, with particular emphasis on the need for Muslims to rebuild their thinking.

M.Behbudiy was once more enlightened: "which nation makes us foolish? marriage, by the way, these two troubles will not be saved until they die. O people! O Muslims! We do not speak God and rasululloh for and follow ourselves passion? Are we foolish? We need to make weddings and obituaries smaller and in our case we are on the move and think of a modern day" [3.147-148].

In particular, it is worth noting the spiritual and educational views of Abdurauf Fitrat (1886-1938), the largest leader of the Bukhara jadids, who wrote the work "the order of the family or the head of the family," in 1914, and this book was published in 1915 [5.214-316]. This work was very quickly spread to central Asia and other regions at that time and fell into the eyes of the general public.

In this work, A.Fitrat thought of himself as an intellectual with extensive coverage and deep knowledge. The scope of the issues that the scientist interprets is quite wide, the need to build a family, the need to marry and not marry, what kind of mahr and wedding, the couple relations, the role of a woman in the family, the duties of parents, children

and the relationship between them, the upbringing of children, etc. are illuminated.

In his work, A.Fitrat noted that marriage is the agreement that the couple have a partnership in their lives and it is necessary to conduct it with place. If on the occasion of the wedding a number of devout and fellow countrymen gather together in one place and have a sincere conversation, then of course the love and kindness between members of one nation will increase. Between some, the cake and the grudge-the well disappears under this pretext. On top of this, how many poor and needy people will enjoy wedding favors for this purpose, and therefore the wedding is a useful ritual.

The scientist noted: "if on the occasion of the wedding a number of devout and fellow countrymen friend gathered together and had a sincere conversation, then of course the love and kindness between members of a nation will increase even more. Among some, the previous cakes and condiments were lost under this pretext, how many miskin and needy people could enjoy wedding favors with the same" [5.238].

According to A.Fitrat, there are also cases in our country that cause a lot of damage at weddings. There are such people who, in 10-12 years, collect thousands of sums with salt. In a week, they will lose weight, again become debtors and poor, losing weight with the name "wedding". On the day of the wedding, people who are dressed in a sarpo, eating, see the situation of the owner of the wedding, ridicule, do not even come and ask for his condition.

"In our country, there are cases when weddings cause a lot of harm," writes the scientist. In Bukhara, there are such people that for ten or twelve years they collect five or six thousand rubles with a fine. In a week they will all die under the name of "wedding", they will again become debtors and poor. On wedding days, people dressed in a sarpo, eating and drinking make fun of seeing the behavior of the owner of the wedding. They do not even come and ask for his condition. "You have paid for one black day by spending and spending so much money on something in vain. Which religion, which sect, which government and what law has forced you to work this foolishly? "If you ask, they certainly cannot answer. Such weddings are not in the Islamic Sharia, because they are extravagant, while the extravagant are haram in the Sharia.

What is more surprising is that the enthusiasts and the causers of extravagance of such weddings know their vain and harmful deeds. Even some of them have been wearing these weddings in order not to stay with each other, when kaysi is done with the same intention of solemnity, Prophet has forbidden their ummah to go to this wedding" [5.238-239].



In his work, A.Fitrat also cited the iqtibos in the scriptures: "Imam Bukhari and Imam Muslim narrate a narration from Malik with Anas:"when Abdurrahman ibn Avlor reports to the Prophet that he wants to marry, he says: "Blessed be you. Make a wedding even when a single sheep is spent. This means that each case will have a certain norm and limit. If the wedding passes the border, even if it is useful, then there will be nothing more than damage" [5.238].

Ibn Mas'ud (may Allah bless him and grant him peace) narrates: "the food of the first day at the wedding is true, the food of the second day is sunnah, but the food of the third day is riyo. Whoever acts hypocritically, God exposes his hypocrisy in the crowd " [5.239].

Abu Huraira (r.a) narrates: "Nabiy alaihissalom said: "if two men go to weddings and banquets to pass each other, do not go to any one of them, do not eat their food" [5.239].

In Short, Abdurauf Fitrat "Oila" in his work, he was categorically opposed to those who sharply condemned the extravagant at weddings, did not think about the harmful or useful aspects of various customs and rituals and introduced him as a tradition.

Also, a witness from the jadid enlightener, Haji Muin (1883-1942) wrote this in his article (1919 year) titled "About wedding and mourning ceremony": "...because of our lack of knowledge, we are a nation that will be crushed above the burden of various rituals and habits and suffer a lot of moral and financial damage for muning. Our people will be indebted to, they will not be able to fulfill their debts, they will be indebted to, they will end up in the garden courtyards, they will "find the goods man, they will not find the goods man", they will give them to their debts, they will destroy the things they have in their hands 1-2 days in order to it turns out that holding weddings and funerals is an enlightenment that has caused many concerns in our ancestors.

Even at the present time, the life of our self-sacrificing jadis is an example for us, it is important to educate young people in the spirit of independence, patriotism and nationalism, and it is necessary to study the ways of their struggle deeply. After all, as noted by our esteemed President Shavkat Mirziyoyev, "we are well aware of how our great-grandfathers are also very fond of the extravagance in our wedding celebrations, flattery, bragging about the vice that leads our nation to moral degradation."

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## **AN ANALYSIS OF INTER-DISTRICT VARIATION IN HEALTH STATUS OF ODISHA WITH A SPECIAL REFERENCE TO HEALTHCARE**

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### **ABSTRACT**

*The objective of this present study is to the analysis of inter-district variation in the health status of Odisha with a special reference to Healthcare. Health is an important view of health care. One needs good health to lead an economical life. The health of individuals and communities depends upon various socio-economic, demographic and environmental components. To understand the situation of health care an analysis of indicators such as infant mortality rate, death rate, birth rate, life expectancy, Sex ratio, Doctor per thousand of population, medical in hospital per thousand of population, Beds per thousand of population, and literacy rate have been employed through various quantitative techniques like composite index, Descriptive Statistics, Correlation etc. The study depends entirely on secondary data. The relevant secondary data have been collected from various dependable sources. Although the level of health status in Odisha has shown substantial improvement over the years, yet there are marked inter-district variations in health achievements of the Odisha and their districts are at a deplorably low level of health status.*

*In this context, the main aim of this objective is to an analysis of Inter-District Variation in Health Status of Odisha with a special reference to Health care with Annual Health Survey (2012-13) presents data and methodology.*

**KEY WORDS:** *Birth Rate, Death Rate, Infant Mortality, Life Expectancy, Sex Ratio, Literacy Rate, Growth Rate*

### **INTRODUCTION**

In this article, an attempt has been made to analyse the findings of various health studies that have been carried out at the national and regional level. Including a comparative analysis between Odisha and districts, an effort has been made to bring out the health inequities by districts, by castes groups, by education, by wealth quintiles, by age groups, etc within the state. Various health indicators that have been included for

analysis are the Human Development Index (HDI) vs. Health Index; life expectancy, curd birth rates, curd death rates, infant mortality rates; health care status etc. "Health is wealth" goes the adage in India and it is relevant for all countries of the world. Health is a holistic and multidimensional phenomenon. It is an important aspect of human well being. One should keep one body and mind fit and active to enjoy life and contribute to the good of society. The World Health



Organisation (WHO) defines health “as a state of complete physical, mental and social well being and not merely criteria such as life expectancy, work capacity, need for medical care, or ability to perform a variety of personal and social functions. It may also be defined in terms of life expectancy at birth (LEB), the infant mortality rate (IMR), the crude death rate (CDR) or in a self-evaluation of health status or simultaneous account of mortality, morbidity or disability or in terms of disability-adjusted life years (DALY) or terms of quality-adjusted life years (QALY). Therefore it varies with the purpose on hand and the meaning of health one takes into account.

Health is one of the basic indicators of development. People must be healthy and active to participate in different developmental programmes. The importance of the public sector in health needs no belabouring, given the proportion of poverty in the developing countries. The World Bank have played an increasingly significant role in changing the pattern of investments and production in health and associated sectors, depending on priorities regarding where and how the money is to be spent. A healthy individual is an asset to a community while a sick person is a liability. In India, a large infrastructure exists for providing health care services. But the facilities are not properly utilized because of various reasons (Tekhre, Y.L., Tiwari, V. K. & Khan, A. M., 2004).

Society's health is influenced by the accessibility, affordability, quality, availability and utilization of health services. The best health services are those that are easily accessible, both time-wise and distance-wise to all classes of society, and those that can be afforded by society. It is the government which provides them, making it affordable to the people who utilize them, in a minimum acceptable standard keeping in view the need of the users at each level (NSSO, 2004).

The dependence on government health services is diminishing despite higher costs of private sector services. Why is this so? One reason is the lack of adequate infrastructure and personnel at public health care facilities. The second reason is the poor quality of service of the government's health care units. Therefore, the private sector has had a growing share in various sub-markets such as medical technology, diagnostics, curative health care pharmaceuticals, hospital construction, ancillary services and curative health services. It is estimated to provide 81% of outpatient care and 46% of inpatient care in India. 68% of India's 16,000 hospitals and 37% of its 60, 00,000 beds are in the private sector (Ghosh, P. K., 2008).

When it comes to health status and health care, Indians are split into two groups - the first comprising of the middle and upper classes of urban India with access to quality medical care. However, the second and larger group comprised of those that live below the poverty line in rural areas and have limited access to medical care. The successive rounds of the (Jalandhar, P. & Arokiasamy, P., 2006) National Family Health Survey (NFHS 1-3) revealed huge rural-urban differences in key maternal and child health indicators. Rural people also spend less on health care as compared to their urban counterparts. The inequalities in the distribution of selected sensitive measures of health status: infant mortality rate (IMR), under-five mortality rate and life expectancy at birth (LEB) have been interpolated. The 2011 Census reveals that more than 70 per cent of the households of rural India do not have toilet facilities. Unsafe and unhygienic birth practices, unclean water, poor nutrition, poor habitats, and unsanitary environments are challenges to the public health system (Goli, S. 2012).

To improve the prevailing situation, the Government of Odisha launched the National Rural Health Mission (NRHM) programme through the state. It becomes necessary to assess the impact of NRHM on the health infrastructure and the health indicators and to analyze the determinants of health status in the healthy development of Odisha. The study shows that the health status of the study area is very poor and is gradually increasing as a result of the implementation of NRHM and the staple reasons for this tendency are: low income, illiteracy, shortage of doctors, unwillingness doctors to go to remote areas and lack of health care facilities (Patra, S. K., 2013).

The main objective of this article is to examine the nature of the health status of Odisha and its various districts in rural-urban variation. Health status is multidimensional and difficult to measure precisely. It is captured through a range of indicators. Life expectancy at birth, Crude Birth Rate, Infant mortality rate, Doctors per '000 of population, Hospitals per '000 of population, Beds per '000 of population, Literacy Rate, Sex Ratio, and Crude Death Rate are the noted variables on which data have been collected and examined from 2012-13. Further, growth rates have been computed and analyzed (Mishra, P. & Agarwal, A., 2017). To look into Inter-district variation, descriptive statistics, rank correlation and coefficient of variation has been calculated and interpreted accordingly. Growth Rates to be Calculate in Annual growth rates were computed for respective



states over the period. In this analysis, annual growth rates were calculated in the case of public health expenditure and further growth rates were calculated in the case of examining the health status.

### Hypothesis

In this objective of the process of data collection and review of literature, a certain hypothesis was formulated. The main factor responsible for the poor health care condition in Odisha. Above mentioned objective, the present study proposes the following hypothesis:

### METHODOLOGY

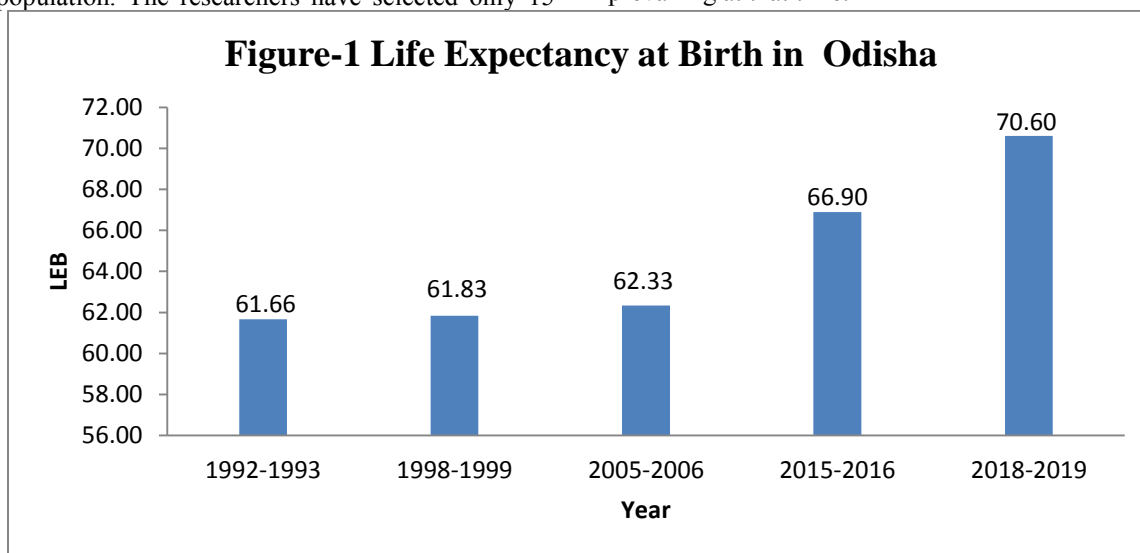
Methodological difference between the size of the population and area of 30 districts has been shown in this study. Annual Health Survey data based on population/area, in ratio and percentages, are more suitable to estimate the magnitude of inter-district disparities in public health. Following techniques were applied to analyze the data for achieving the desired objective. These techniques are discussed below: In this article, the aim to analyse the inter-state disparities in the health sector in 30 districts in Odisha selected based on population. The researchers have selected only 15

states because these selected states alone account for about 90 per cent of the total population in Odisha is sufficient to represent the inter-district's variations in the state. This is attempted through a comparative analysis of various parameters depicting health expenditure, availability of health services, their utilization and health outcomes. The researcher has used statistical tools like Standard Deviation, Coefficient of Variation and Disparity Ratio (Based on the model used in Bhattacharya, 2009) to analyse the interstate variations concerning various health parameters.

### Life Expectancy at Birth Rate in Odisha

Life expectancy at birth means the average number of years a newborn could expect to live if; he/she was to pass through life subject to age-specific death rates of a given period. Growth rates have been calculated from 1992-93 to 2018-19 taking both all districts of Odisha and its 30 districts into consideration.

It is defined as the number of years that a newborn would live under mortality conditions prevailing at that time.



Source: Computed by Authors using EViews

Figure-1 shows the life expectancy at birth in Odisha during all five NFHS database. The LEB has been increased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e., 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been increased at a very slow rate and from 1998-99 to 2005-06, also at a slow rate. But after 2005-06, it has been increased in a little bit higher rate up to 2018-19.

LEB (1992-93), during this period, Odisha's LEB is 61.66 across the districts. It implies that LEB as an indicator of health status had shown improvement in this decade in all the districts in Odisha because people had better access to modern facilities and led a better quality of life. In Cuttack and Puri, the growth rate was 68 while a better position by Sambalpur and Jharsuguda growth rate was 66. The mean value of

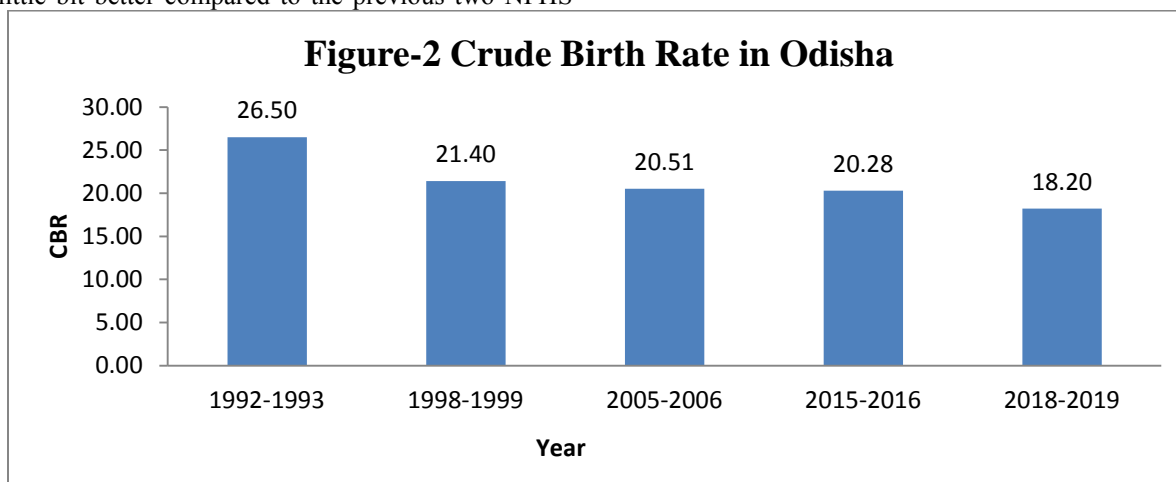


LEB in all districts is 61.66. Among all districts, LEB growth rate was Anugul (62); Balangiri (55), Gajapati (52), Kendrapada (57), Kendujhar (58), Kendujhar (58), and Malkangiri (53) were the districts where LEB was lower than the state average. LEB (1998-99), during this period, Odisha's LEB is 61.83 across the districts. The LEB has been increased as compared to 1992-93 that is 61.66. It implies that due to some modern facilities in the Health care sector the health status has been increased. Moreover, the SD is 3.82 and the mean is 61.83. Therefore, the CV is 6.17%. LEB (2005-06), here, the LEB in Odisha is 62.33 which are a little bit better compared to the previous two NFHS

data. The mean is 62.33 and the SD is 3.46 there for is CV is 5.55%. LEB (2015-16), here, the LEB is 66.90 which are far better than NFHS-1, NFHS-2 and NFHS-3 data.

### Crude Birth Rate in Odisha

The Crude Birth rate is an important indicator of health status. It refers to the ratio of the number of live births in a year to the mid-year population, normally expressed per thousand of population. It is defined as the total number of births per year per 1000 of the population.



Source: Computed by Authors using EViews

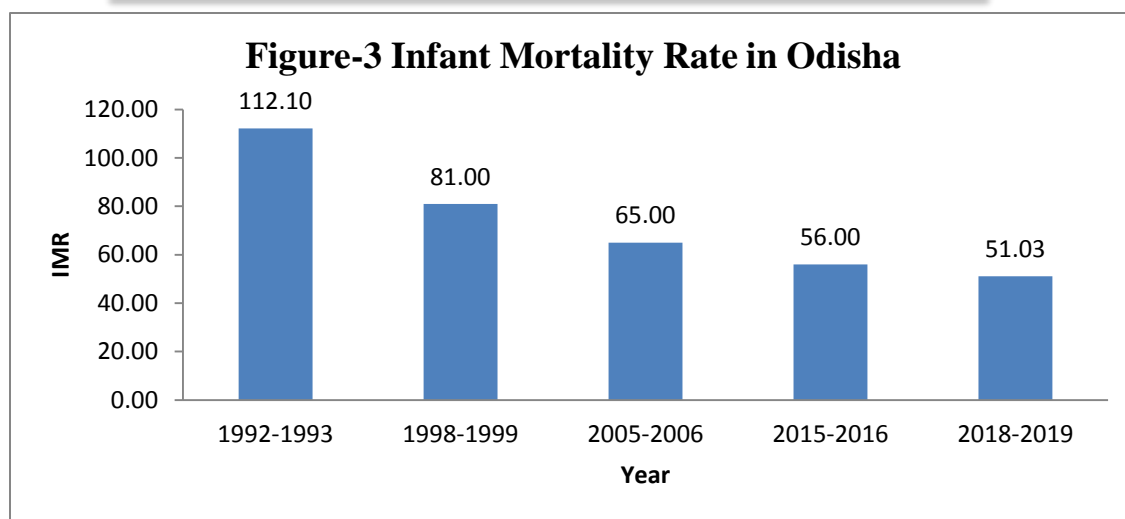
Figure-2 shows the crude birth rate in Odisha during all five NFHS database. The CBR has been decreased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e., 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very slow rate and from 1998-99 to 2018-19, also at a slow rate. But after 2005-06, it has been decreased in sharp rate up from 1992-93 to 1998-99.

CBR (1992-93), during this period, Odisha's CBR is 26.50 across the districts. It implies that CBR as an indicator of health status had shown improvement in this decade in all the districts in Odisha because people had better access to modern facilities and led a better quality of life. In Cuttack and Puri, the growth rate was 68 while a better position by Sambalpur and Jharsuguda growth rate was 66. The mean value of LEB in all districts is 61.66. During this period, Odisha's CBR is 21.40 across the districts. The CBR has been increased as compared to 1992-93 that is 26.50. It implies that due to some modern facilities in the Health care sector the health status has been

increased. Moreover, the SD is 2.74 and the mean is 21.40. Therefore, the CV is 12.82 %. CBR (2005-06), here, the CBR is 20.51 which are far better than NFHS-1, NFHS-2 and NFHS-3 data. The mean is 20.51 and the SD is 2.75 there for is CV is 13.39%. CBR (2015-16), here, the CBR is 20.28 which are far better than NFHS-1, NFHS-2 and NFHS-3 data.

### Infant Mortality Rate in Odisha

Generating robust estimates of Infant Mortality Rate at the district level has become an almost necessity as a reduction in Infant Mortality constitutes one of the key targets in the reproductive & Child Health Programme (RCH) under the umbrella of NRHM. This would also facilitate effective tracking of the Millennium Development Goal 4 on Child Mortality. The infant Mortality Rate has therefore been taken as the decisive indicator for estimation of sample size at the district level.



Source: Computed by Authors using EViews

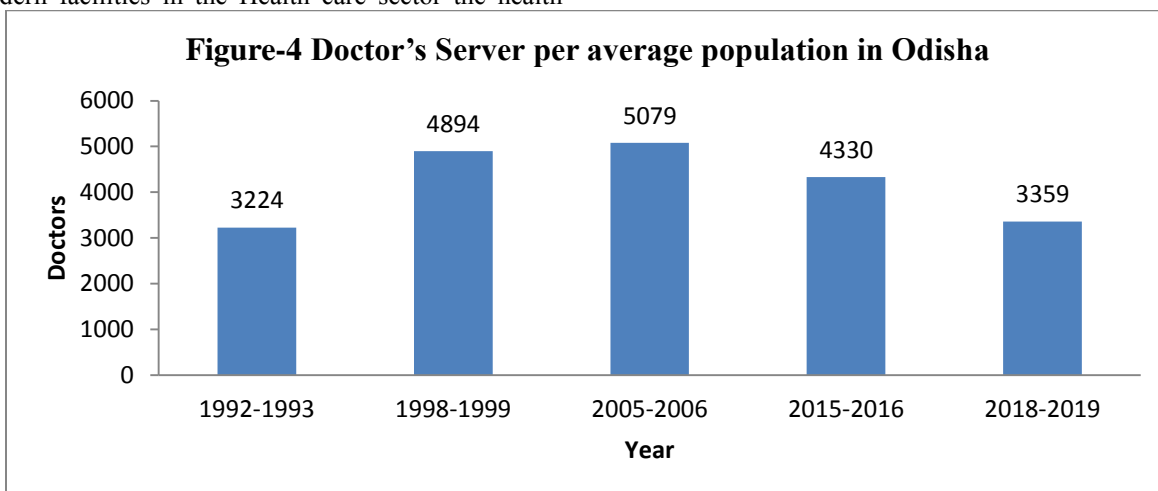
Figure-3 shows the Infant Mortality Rate in Odisha during all five NFHS database. The Infant Mortality Rate has been decreased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very slow rate and from 1998-99 to 2018-19, also at a low rate. But after 2005-06, it has been decreased in sharp rate up from 1992-93 to 1998-99.

IMR (1992-93), during this period, Odisha's IMR is 112.10 across the districts. It implies that IMR as an indicator of health status had shown improvement in this decade in all the districts in Odisha. The mean value of IMR in all districts is 112.10. IMR (1998-99), during this period, Odisha's IMR is 81.00 across the districts. The IMR has been increased as compared to 1992-93 that is 26.50. It implies that due to some modern facilities in the Health care sector the health

status has been increased. IMR (2005-06), here, the IMR is 65.00 which are far better than NFHS-1, NFHS-2 and NFHS-3 data. The mean is 65.00 and the SD is 12.88 there for is CV is 19.81 %. IMR (2015-16), here, the IMR is 56.00 which are far better than NFHS-1, NFHS-2 and NFHS-3 data.

### Doctors in Server per average population in Odisha

An important indicator of health status is Health Personnel serving per '000 of the population. To find out the increase in the number of Health Personnel per '000 of the population served, the simple average growth rates have been worked out for all the three respective periods of the study and both rural and urban areas. An increase in its growth rate signifies a better position of health services.





Source: Computed by Authors using E-Views

Figure-4 shows the Doctors per Average Population in Odisha during all five NFHS database. The Doctors per Average Population has been decreased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very low rate and from 1998-99 to 2018-19, also at a low rate. But three NFHS differences in Doctors per Average Population ratio is higher than other the NFHS-1 and NFHS-2 after that, it has been decreased in sharp rate up from 1992-93 to 1998-99.

Doctors per Average Population (1992-93), during this period, Odisha's Doctors per Average Population are 107.47 across the districts. It implies that Doctors per Average Population as an indicator of health status had shown improvement in this decade in all the districts in Odisha.

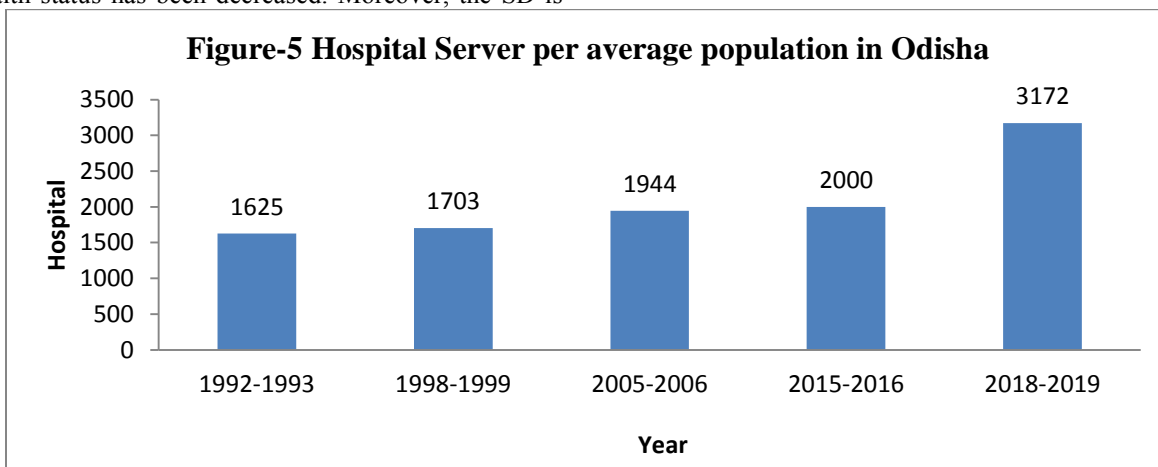
Doctors per Average Population (1998-99), during this period, Odisha's Doctors per Average Population are 163.16 across the districts. The Doctors per Average Population have been decreased as compared to 1992-93 that is 163.13. It implies that due to some modern facilities in the Health care sector the health status has been decreased. Moreover, the SD is

132.91 and the mean is 163.13. Therefore, the CV is 81.47 %.

Doctors per Average Population (2005-06), here, the doctors per Average Population are 169.30 which are far better than NFHS-1, NFHS-2 and NFHS-3 data. The mean is 163.13 and the SD is 120.82 there for is CV is 71.36 %. Doctors per Average Population (2015-16), here, the doctors per Average Population are 144.33 which are far better than NFHS-2 and NFHS-3 data. Doctors per Average Population (2018-19), here, the doctors per Average Population are 111.97 which are also the lowest than all previous NFHS data set.

### Hospital server per Average population

All hospitalised healthcare institution providing patient treatment with specialized staff and equipment. The best-known type of hospital is the general hospital, which has an emergency department. A district hospital typically is the major health care facility in its region, with large numbers of beds for intensive care and long term care.



Source: Computed by Authors using E-Views

Figure-5 shows the Hospital server per Average population in Odisha during all five NFHS database. The Hospital server per Average population has been decreased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very low rate and from 1998-99 to 2018-19, also at a low rate. But three NFHS differences in Hospital server per Average population ratio is higher than other the

NFHS-1 and NFHS-2 after that, it has been decreased in sharp rate up from 1992-93 to 1998-99.

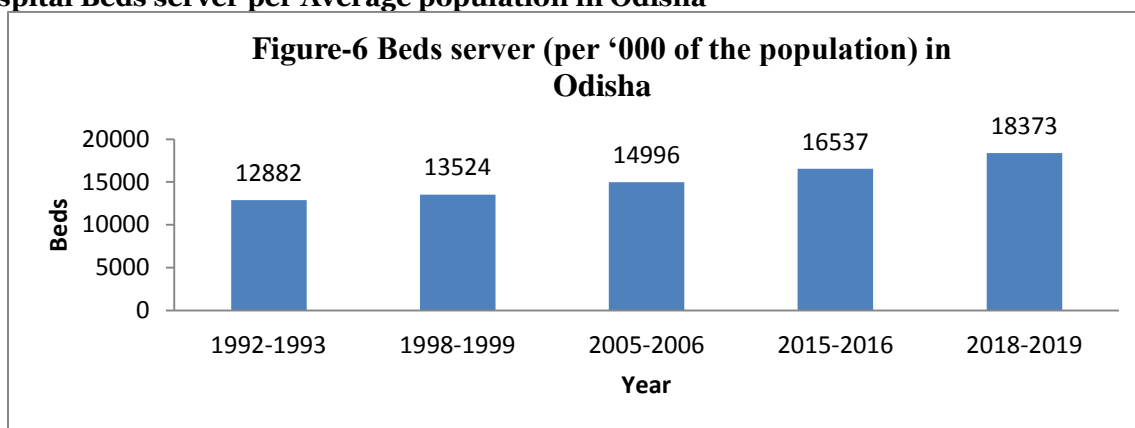
**Hospital server per Average population (1992-93)**, during this period, Odisha's Hospital server per Average population is 54.17 across the districts. It implies that Hospital server per Average population as an indicator of health status had shown improvement in this decade in all the districts in Odisha. The mean value of Hospital server per Average population in all districts is 54.17. **Hospital server per Average**



population (1998-99), during this period, Odisha's Hospital server per Average population is 56.77 across the districts. The Hospital server per Average population has been decreased as compared to 1992-93 that is 56.77. It implies that due to some modern facilities in the Health care sector the health status has been decreased. Therefore, the CV is 46.22 %. **Hospital server per Average population (2005-06)**, Here, the Hospital server per Average population is 64.80 which are far better than NFHS-1, NFHS-2

and NFHS-3 data. The mean is 64.80 and the SD is 28.78 there for is CV is 44.41 %. **Hospital server per Average population (2015-16)**, Here, the Hospital server per Average population is 66.77 which are far better than NFHS-2 and NFHS-3 data. **Hospital server per Average population (2018-19)**, Here, the Hospital server per Average population is 105.73 which is also lowest than all previous NFHS data set.

### Hospital Beds server per Average population in Odisha



Source: Computed by Authors using E-Views

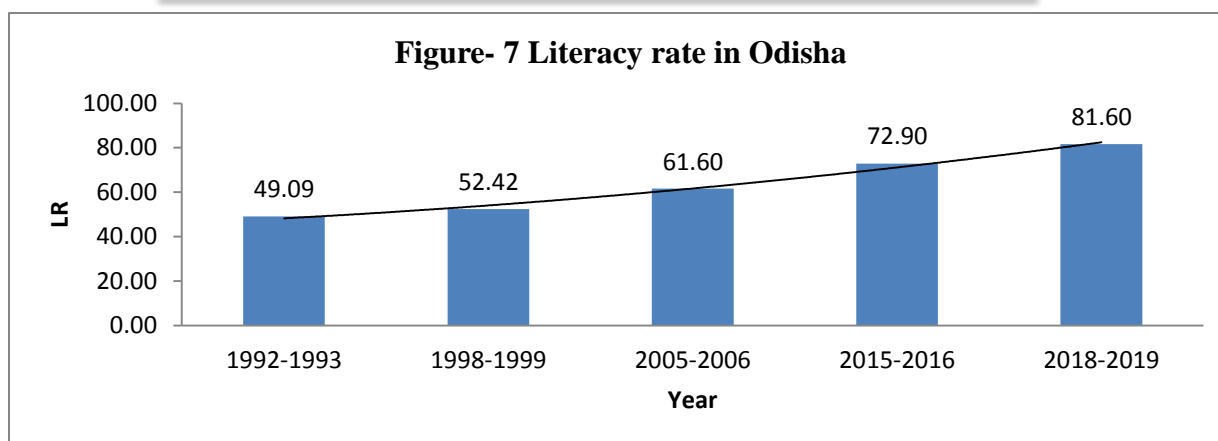
Figure-6 shows the Hospital Beds server per Average population in Odisha during all five NFHS database. The Hospital Beds server per Average population has been increased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very low rate and from 1998-99 to 2018-19, also at a high rate. But three NFHS differences in Hospital Beds server per Average population ratio is higher than other the NFHS-1 and NFHS-2 after that, it has been decreased in sharp rate up from 1992-93 to 1998-99.

**Hospital Beds server per Average population (1992-93)**, during this period, Odisha's Hospital Beds server per Average population is 429.40 across the districts. It implies that Hospital Beds server per Average population as an indicator of health status had shown improvement in this decade in all the districts in Odisha. The mean value of Hospital Beds server per Average population in all districts is 429.40. **Hospital Beds server per Average population (1998-99)**, during this period, Odisha's Hospital Beds server per Average population is 450.80 across the districts. The hospital beds server per Average

population has been decreased as compared to 1992-93 that is 450.80. It implies that due to some modern facilities in the Health care sector the health status has been decreased. Moreover, the SD is 205.67 and the mean is 450.80. Therefore, the CV is 45.62 %. **Hospital Beds server per Average population (2005-06)**, Here, the Hospital Beds server per Average population is 499.87 which is far better than NFHS-1, NFHS-2 and NFHS-3 data. **Hospital Beds server per Average population (2015-16)**, Here, the Hospital Beds server per Average population is 551.23 which is far better than NFHS-2 and NFHS-3 data. The mean is 551.23 and the SD is 502.44 there for is CV is 91.15%. **Hospital Beds server per Average population (2018-19)**, Here, the hospital beds server per Average population is 612.43 which is also lowest than all previous NFHS data set.

### Literacy Rate of Odisha

Any person who can read and write with understanding in any language is recorded as literate (Jana, N. C. & Ghosh, P. K., 2015).



Source: Computed by Authors using E-Views

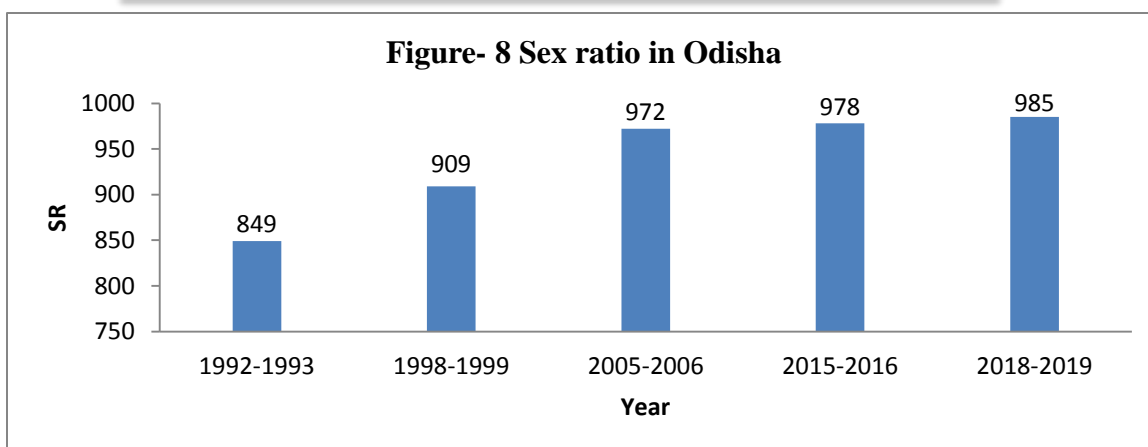
Figure-7 shows the Literacy Rate population in Odisha during all five NFHS database. The Literacy Rate population has been increased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very low rate and from 1998-99 to 2018-19, also at a high rate. But three NFHS a difference in Literacy Rate population ratio is higher than other the NFHS-1 and NFHS-2 after that, it has been decreased in sharp rate up from 1992-93 to 1998-99.

Literacy Rate (1992-93), during this period, Odisha's Literacy Rate population is 45.60 across the districts. It implies that the Literacy Rate population as an indicator of health status had shown improvement in this decade in all the districts in Odisha. The mean value of the Literacy Rate population in all districts is 45.60. Literacy rates studies show that literacy rates are directly related to the health status of the population. During this period, at an all Odisha level, the total Literacy rate of Odisha was 49.09 %. Gajapati (-0.87%), Kalahandi (-0.69%), Koraput (-1.75%), Nabarangapur (-1.03%), Rayagada (-1.43%), were the districts having a rate of change in lower than the higher districts in Baleshwar (0.33%), Bhadrak (0.32%), Sambalpur (0.50%), Ganjam (0.37%), Nayagarh (0.52%), Sambalpur (0.50%) were the districts having heights than districts average among the State. Literacy Rate (1998-99), during this period,

Odisha's Literacy Rate of the population is 50.89 across the districts. The Literacy Rate of the population has been decreased as compared to 1992-93 that is 45.60. It implies that due to some modern facilities in the Health care sector the health status has been decreased. Moreover, the SD is 9.01 and the mean is 50.89. Therefore, the CV is 17.70 %. Literacy Rate (2005-06), here, the Literacy Rate of the population is 60.51 which are far better than NFHS-1, NFHS-2 and NFHS-3 data.

### Sex Ratio of Odisha

Sex ratio is defined as the number of females per thousand males. According to the 2011 census, the sex ratio for India's population is 1072. This ratio is significantly higher than those of neighbouring countries- Pakistan (1066), China (10590) and Bangladesh (1049). For India, in 2001 there was a slight improvement. This gain can be attributed to better health facilities for women and some extent to improvement in the status of women. But any complacency over this development must be tempered by the fact that there are sharp differences across states. It is unclear whether the cause for this imbalance is out-migration of the male labour force in Kerala and in-migration of male workers in Haryana or systematic use of sex-selective abortion.



Source: Computed by Authors using E-Views

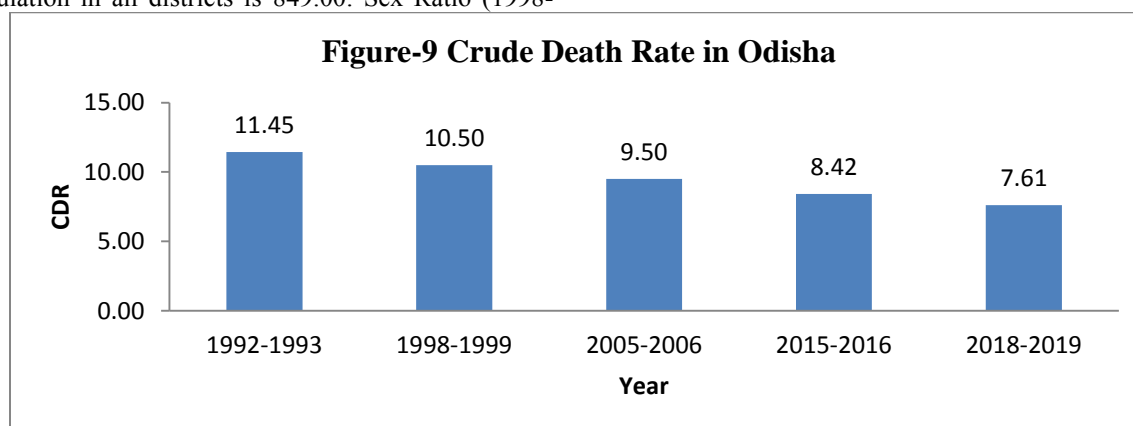
Figure-8 shows the Sex Ratio population in Odisha during all five NFHS database. The Sex Ratio population has been increased from NFHS-1 data that is 1992-1993 to NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been decreased at a very low rate and from 1998-99 to 2018-19, also at a heights rate. But three NFHS a difference in Sex Ratio population ratio is higher than other the NFHS-1 and NFHS-2 after that, it has been decreased in sharp rate up from 1992-93 to 1998-99.

Sex Ratio (1992-93), during this period, Odisha's Sex Ratio Average population is 849.00 across the districts. It implies that the Sex Ratio per Average population as an indicator of health status had shown improvement in this decade in all the districts in Odisha. The mean value of Sex Ratio Average population in all districts is 849.00. Sex Ratio (1998-

99), during this period, Odisha's Sex Ratio Average population is 909.00 across the districts. The Sex Ratio Average population have been decreased as compared to 1992-93 that is 909.00. It implies that due to some modern facilities in the Health care sector the health status has been decreased. Moreover, the SD is 31.54 and the mean is 909.00. Therefore, the CV is 3.77 %. Sex Ratio (2005-06), here, the Sex Ratio Average population is 983.30 which are far better than NFHS-1, NFHS-2 and NFHS-3 data.

#### Crude Death Rate in Odisha

It is defined as the total number of deaths per year per 1000 people. It is calculated as  $\frac{D}{P} * 1000$  Where D is several deaths, P is mid-year population.



Source: Computed by Authors using EViews

Figure-9 shows the CDR population in Odisha during all five NFHS database. The CDR population has been decreased from NFHS-1 data that is 1992-1993 to

NFHS-5, i.e. 2018-19. Moreover, it indicates that from 1992-93 to 1998-99, it has been increased at a very low rate and from 1998-99 to 2018-19, also at a heights



rate. But three NFHS differences in CDR population ratio are higher than other the NFHS-1 and NFHS-2 after that, it has been increased in sharp rate up from 1992-93 to 1998-99.

CDR (1992-93), during this period, Odisha's CDR of the population is 11.45 across the districts. It implies that the CDR population as an indicator of health status had shown improvement in this decade in

all the districts in Odisha. The mean value of the CDR population in all districts is 11.45. CDR (1998-99), during this period, Odisha's CDR population is 10.50 across the districts. The CDR population have been decreased as compared to 1992-93 that is 10.50. It implies that due to some modern facilities in the Health care sector the health status has been decreased.

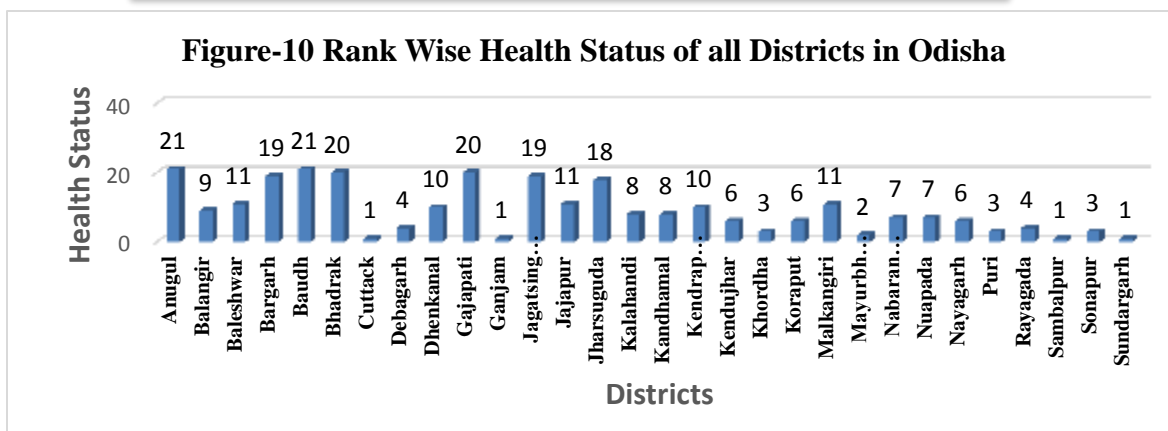
**Table-10 Availability of Public Health care (1992-2019) in Odisha**

Districts	LEB	CBR	IMR	Doctors	Hospitals	Beds	LR	SR	CDR	Rank
<b>Odisha</b>	64.66	21.38	73.03	4177.20	2088.80	15262.40	63.52	938.60	9.50	-
Anugul	65.50	19.16	67.41	103.60	51.60	356.80	68.68	908.20	8.56	21
Balangir	60.10	20.75	118.50	157.20	81.80	501.00	62.26	961.80	11.50	9
Baleshwar	66.80	19.75	65.34	113.20	100.00	484.80	71.33	934.60	8.29	11
Bargarh	66.22	19.04	79.47	105.00	72.80	340.00	67.62	914.80	11.43	19
Baudh	65.20	25.76	72.99	123.80	21.00	261.80	60.35	958.60	10.59	21
Bhadrak	67.64	21.39	69.07	66.20	69.20	322.20	70.49	910.60	9.42	20
Cuttack	69.40	20.61	71.62	587.40	97.00	1536.80	76.74	998.20	7.61	1
Debagarh	69.28	19.85	74.53	28.40	14.80	986.80	63.91	964.40	9.60	4
Dhenkanal	69.60	21.56	78.59	123.00	58.60	485.80	70.46	914.20	12.18	10
Gajapati	59.26	20.37	69.41	54.40	35.80	237.80	46.44	959.20	8.72	20
Ganjam	63.54	19.69	69.71	299.60	144.20	1199.00	62.36	932.80	9.27	1
Jagatsinghapur	63.66	18.74	64.19	78.20	52.80	282.80	75.29	846.40	8.47	19
Jajapur	64.12	19.52	65.40	81.20	80.40	447.80	70.16	936.60	8.58	11
Jharsuguda	67.84	19.47	61.45	44.40	27.00	199.40	70.70	915.00	9.60	18
Kalahandi	64.44	19.79	71.80	140.60	81.40	456.80	52.11	952.60	7.92	8
Kandhamal	63.70	21.89	100.75	100.60	73.20	431.60	58.25	955.00	9.58	8
Kendrapara	61.92	20.59	75.67	93.20	62.00	322.20	75.19	988.00	10.28	10
Kendujhar	63.18	20.11	70.93	141.00	108.80	484.40	64.94	958.60	9.99	6
Khordha	65.86	19.51	81.72	214.40	93.20	693.40	78.49	904.60	8.96	3
Koraput	65.10	24.20	65.12	110.40	82.20	443.80	41.55	964.20	9.61	6
Malkangiri	60.26	24.05	63.37	58.20	46.00	265.60	41.85	984.40	8.85	11
Mayurbhanj	65.90	24.35	65.76	224.20	146.40	722.80	56.89	955.80	10.61	2
Nabarangapur	65.48	23.75	65.12	96.40	65.20	277.20	39.72	968.80	8.78	7
Nuapada	63.60	23.22	67.86	63.20	30.60	298.00	56.11	947.60	8.52	7
Nayagarh	66.78	22.40	76.74	60.20	57.20	446.20	65.15	888.80	9.92	6
Puri	69.72	20.24	89.97	142.60	74.00	667.20	76.32	928.20	9.83	3
Rayagada	61.40	23.96	71.34	170.40	67.60	284.40	43.45	978.00	9.44	4
Sambalpur	65.61	22.14	65.86	369.60	54.20	859.20	69.10	943.00	10.73	1
Sonapur	64.35	23.33	67.08	59.20	34.40	306.20	64.59	927.40	8.82	3
Sundargarh	62.94	22.20	64.07	167.40	106.00	660.60	68.04	943.20	9.24	1
Mean	64.95	21.38	73.03	139.24	69.65	508.75	62.95	941.45	9.50	-
SD	12.58	2.76	12.61	120.52	32.38	457.25	12.01	45.93	1.15	-
CV	3.88	13.10	18.33	89.13	46.44	91.46	20.23	4.83	12.41	-

Source: Computed by Authors

Table-10 represents important indicators of the health status of all the districts of Odisha. The rank column presents the position of the districts in nine indicators on the whole. With consistency knowledge, four districts are the first rank in all nine indicators among all districts. They are Ganjam, Cuttack, Sundargarada, Sambalpur follow by the subsequent

ranks, i.e, Maurabhanja, Khurda, Debagarda, Kenjhara, Koraput, Nayagada and so on. The least ranks are Anugul, Bhadraka, Gajapati, Jagatasingpur, Baragada, Jharsuguda, Baleshwar, Malanigiri, and Dhenkanal. In most cases, the district-wise disparities are there. The health indicators vary widely across the districts reflecting the differing levels of resources available.



Source: Computed by Authors using EVIEWS

Figure-10 represents important indicators of the health status of all the districts of Odisha. The lower the bar highest rank having of the states. Like Ganjam, Cuttack, Sundaragada, Sambalpur are having a low level of bars which shows the highest ranks and

so on so forth. Similarly, the districts like Boudh, Anugul, Bhadraka, Gajapati, Jagatasingpur, Baragada, Jharsuguda, Baleshwar, Malanigiri, and Dhenkanal are having a high level of bars showing the lowest ranks regarding the health status.

**Table-11 Empirical Results in Descriptive Statistics**

	LEB	CBR	IMR	Doctors	Hospital	Beds	LR	SR	CDR
Mean	64.94	21.38	73.03	269.50	134.78	984.67	62.97	941.36	9.50
Standard Error	0.49	0.34	2.12	131.78	65.38	478.95	1.99	5.69	0.19
Median	65.10	20.75	69.71	110.40	69.20	446.20	64.94	943.20	9.44
Standard Deviation	2.74	1.91	11.79	733.70	364.03	2666.67	11.05	31.69	1.06
Kurtosis	-0.25	-0.74	7.25	29.45	30.49	30.14	-0.24	1.38	0.32
Skewness	-0.09	0.58	2.48	5.37	5.50	5.46	-0.80	-0.77	0.67
Range	10.46	7.02	57.05	4148.80	2074.00	15063.00	38.77	151.80	4.57
Minimum	59.26	18.74	61.45	28.40	14.80	199.40	39.72	846.40	7.61
Maximum	69.72	25.76	118.50	4177.20	2088.80	15262.40	78.49	998.20	12.18
Count	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00
Confidence Level (95.0%)	1.00	0.70	4.32	269.12	133.53	978.14	4.05	11.63	0.39

Source: Computed by Authors

The descriptive statistics are presented in Table-11 represents that the average LEB during the period is 64.94 while the maximum during that period is 69.72. the mean CBR is 21.38 while the maximum is 25.76 during that period the mean IMR is 73.03, Doctors is 269.50, Hospital is 134.78, Beds is 984.64, LR is 62.97, SR is 941.36 and CDR is 9.50 during this period while the maximum is 118.50 in IMR is 4177.20 in doctors, 2088.80 in hospital, 1562.40 in beds 78.49 in LR, 998.20 in SR and 12.18 regarding CDR during this period. This indicates that the state is considered as highly backward regarding health infrastructure availability during the period of analysis.

**Health care status in Odisha**

The indicators for Crude Composite Index (CCI) include life expectancy at birth, Crude Birth Rate, Infant mortality rate, Health Personnel per ‘000 of population, Hospitals per ‘000 of population, Beds per ‘000 of population, Literacy Rate, Sex Ratio, and Crude Death Rate. First, the districts are ranked for each of the indicators. All the ranks for each district are then added up. The CCI has been estimated by taking the average of the total ranks of each district. After taking the average of the ranks, the districts is assigned with ranks in ascending order, i.e. the first ranked districts best achiever district having the lowest value of the indicators.



**Table-12 Rate of change (RoC) in Health care status in Odisha (Per '000 people)**

Year	Crude Death Rate (RoC)	Crude Birth Rate (RoC)	Life Expectancy at Birth (RoC)	Literacy Rate (RoC)	Infant Mortality Rate (RoC)	Hospital Beds (RoC)	Sex Ratio at Birth (RoC)	Doctors (RoC)
1992	--	--	--	--	--	--	--	--
1993	0.09	-0.03	0.01	0.02	-0.02	0.04	0.00	0.04
1994	0.07	0.01	0.00	0.01	-0.06	0.03	-0.01	0.04
1995	0.00	-0.04	0.01	0.01	0.00	0.02	-0.01	0.02
1996	0.00	-0.03	0.02	0.01	-0.07	0.03	0.00	0.00
1997	0.01	-0.02	0.00	0.01	0.00	0.07	0.02	0.00
1998	0.02	-0.03	0.02	0.02	0.02	0.03	0.00	0.00
1999	-0.04	-0.05	0.00	0.05	-0.01	0.05	0.01	0.11
2000	-0.02	-0.01	0.00	0.08	-0.02	0.02	0.00	-0.07
2001	-0.03	-0.03	0.05	0.05	-0.05	0.02	0.00	0.01
2002	-0.04	-0.01	0.02	0.01	-0.03	0.03	0.00	0.27
2003	-0.01	-0.01	0.01	0.01	-0.05	0.02	0.00	0.04
2004	-0.01	-0.01	0.00	0.00	-0.07	0.00	0.00	0.17
2005	-0.01	0.01	0.01	0.02	-0.03	0.00	0.00	0.02
2006	-0.02	-0.05	0.01	0.02	-0.03	0.00	-0.04	-0.04
2007	-0.01	-0.02	0.00	0.02	-0.03	0.01	0.00	0.01
2008	-0.02	0.00	0.01	0.01	-0.03	0.04	0.00	0.01
2009	-0.03	-0.02	0.00	0.03	-0.06	0.02	0.00	0.04
2010	-0.01	-0.02	0.02	0.01	-0.06	0.03	0.00	0.17
2011	-0.01	-0.02	0.01	0.02	-0.07	0.01	0.01	0.13
2012	0.00	0.07	0.00	0.00	-0.07	0.02	0.00	0.14
2013	-0.01	-0.01	-0.03	-0.05	-0.04	0.02	0.01	0.05
2014	-0.06	-0.02	0.01	0.01	-0.04	0.01	0.00	-0.24
2015	-0.01	-0.09	0.01	0.00	-0.06	0.01	0.00	0.16
2016	-0.03	-0.03	-0.03	0.00	-0.04	0.01	0.00	0.06
2017	-0.03	-0.02	0.02	0.00	-0.07	0.07	-0.05	0.07
2018	-0.01	-0.01	0.00	0.00	-0.02	0.01	0.05	0.01
2019	-0.03	-0.01	0.02	0.00	0.00	0.02	-0.01	0.01
2020	-0.01	-0.01	0.00	0.03	0.00	0.01	0.05	0.00

Source: Ministry of Health & Family Welfare, Govt. of Odisha

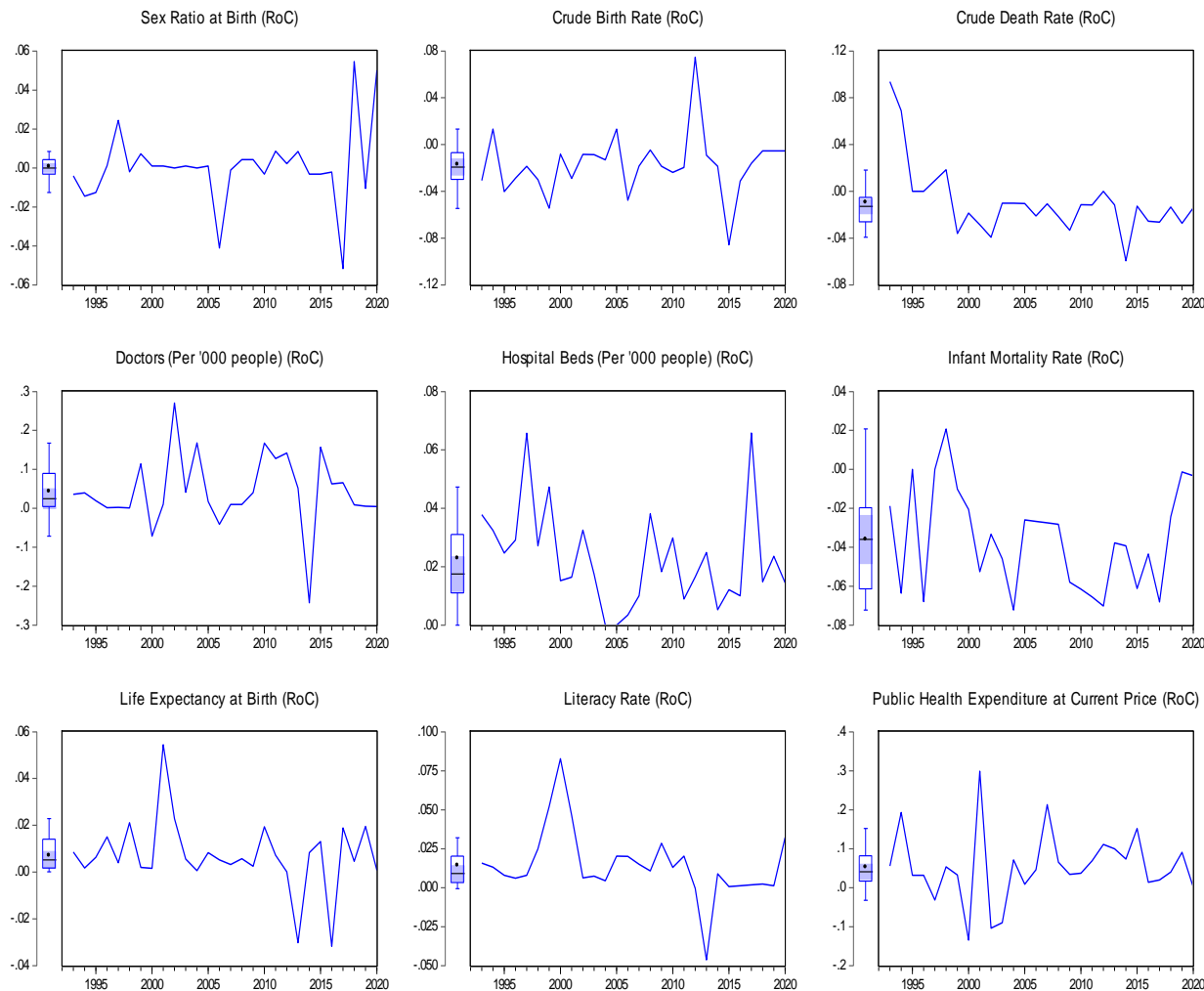
Table-12 represents the growth rate of all nine variables. The first column which is CDR decreases over the period from 1992 to 2020. Similarly, the CBR also decreases for the study. This indicates a little bit better health infrastructure in Odisha. Moreover, the LEB increases during the study period and the literacy rate also increase during the same period. IMR decreases over the period and the hospital beds (Per '000 people) is showing the increasing in trend but form

2002 to 2005 it is constant. After it is again increased. Sex Ratio at Birth is showing the negative growth for the first three-four years, but after 1996 it is in increasing in trend up to 2005. Again increasing up to 2016 followed by negative growth with again positive growth. In the case of Doctors (Per '000 people) which is in constant growth up to 2000, after this again it is in positive growth with fluctuation rate.



**Figure-11: Trend Line of Healthcare Status in Odisha**

Trend Line in Group of all Variables



Source: Computed by Authors using E-Views

Figure-11 represents the trend line of the variables regarding the growth rate. The CDR decreases over the period from 1992 to 2020. Similarly, the CBR also decreases over the period of the study. This indicates a little bit better health infrastructure in Odisha. Moreover, the LEB increases during the study period and the literacy rate also increase during the same period. IMR decreases over the period and the hospital beds (Per '000 people) is showing the increasing in trend but from 2002 to 2005 it is constant. After it is again increased. Sex Ratio at Birth is showing the negative growth for the first three-four years, but after 1996 it is in increasing in trend up to 2005. Again increasing up to 2016 followed by negative growth with again positive growth. In the case of Doctors (Per '000 people) which is in constant

growth up to 2000, after this again it is in positive growth with fluctuation rate.

## FINDINGS AND SUGGESTIONS

Cuttack and Ganjam are the only states which stand top in all respects like public health care expenditure, Availability and expenditure of Government health services and also exemplary health status as well. It is found that Jharsuguda, Gajapati, Malkangiri and Phulabani are lagging behind Ganjam, Cuttack, Khurda, and Sambalpur in their all mortality indicators, especially in child and reproductive healthcare. This may be due to a lack of necessary health infrastructure. In this regard, four suggestions can be made. Firstly the infrastructure whatever is there need to be distributed properly and executed with the



necessary plan among all districts. The second is regarding a vacant post in the health sector which needs to be filled as soon as possible in a war footing manner. The next one is based on resolving the infrastructure shortfalls which should be resolved as per the population norms. The last one is regarding the opening of new medical centres and colleges which are very much required for any districts should be opened quickly with proper medical equipment.

It is said that prevention is better than cure that is we have to have proper infrastructure regarding any sector so that in future during an emergency we would not have any problems. So the government should focus on enhancing the health infrastructure. Moreover, there should be a proper executive committee regarding this matter so that delay should not be there.

## CONCLUSION

It has been seen that with poor health care infrastructure, and poor status of health, Odisha is one of the long-way to meet the desired level of development. It is well understood that public health care systems. Which has a nation-wide network of delivering health and family welfare related services has a crucial role to achieve that desired level of development. However, the accessibility to the utilization of public health care across the whole corner of the state in Odisha is very poor. Health Service is a vital public property and a basic human right. So, all citizens should have an equal right to get better health facilities from the government. The government of Odisha has to play a key role in the up-gradation of the health facilities in the state for meeting urgent social need. In absence of that, the inhabitants of the state will be unable to face global competition in the race of progress. The peculiar nature of the health care market also necessitates the extensive involvement of the government in the health sector. The private participation in the health sector of Odisha is very insignificant; it can be stated as almost nil. Due to the limited health infrastructure facilities and non-systematic distributions of these facilities make disparities in the different parts of the state. The remote vulnerable poor inhabitants are still out of modern health service facilities, which make them deprived of receiving equal health facilities in the rest part of the world and it results in low life expectancy at birth in the state. The failure of this public health delivery system is an outcome of the poor accountability of the services and concrete work relationships within the institutional framework. There is a large shortfall both in physical infrastructure and medical personnel,

though minimal norms were prescribed earlier by the central government. Despite all these shortcomings, the Ministries of Health and Family Welfare of the Government of Odisha should continue to play their leadership role in health development and should advocate for the importance of investing in health and protecting the social values of equity, solidarity and fairness. The right efforts must be paid to health services of the state as the core area of social needs for the interest of comprehensive socio-economic development.

The health care system has developed and even improved over some time but inter and intra-state disparity between the states and among the districts tend to persist. By examining the overall scenario of the health sector, one can understand that it is difficult to achieve the goals of improving the health status of the population. India is facing a lot of challenges to prevent non-communicable diseases and communicable diseases. People of Odisha suffer from multiple diseases as the death rate in Odisha is the highest (8.5 per 1000 population) compared to other states. The health status in Malkangiri, Kandhamal, Koraput, Gajapati and Nabarangapur, found to be the worst. The government of Odisha should increase their health expenditure for a better supply of clean drinking water, sanitation, and build health infrastructure to improve the health condition of the people living in the remote areas of Odisha. It is disheartening to note that the investment in health care in rural areas of Odisha has declined over time and the expenditure on urban health care has increased. It seems that the government is giving more priority to the health sector of the urban area. Despite improving the resource allocation in an urban area there is an acute shortage of beds, doctors and nurses in government hospitals.

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# ANTI-DIARRHOEAL ACTIVITY OF ETHANOLIC LEAF EXTRACT OF *PASSIFLORA EDULIS SIMS* IN ALBINO RATS

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## ABSTRACT

*Passiflora edulis sims* are found in India this plant is used in traditional medicine. It should be used in the treatment of many types of diseases such as sedative, anti-asthmatic, anti-diarrhoeal, emetic, insomnia, antioxidant, anti-inflammatory, lower the high blood pressure, diabetes. In this study we investigated the property of ethanol crude extract which is obtained from *passiflora edulis sims* in albino rats for their use in traditional and its phytochemical constituents. The plant extract which is evaluated form plant extract was used in anti-diarrhoeal activity in castor oil- induced diarrhoea model in rat. It is been compared with loperamide. The administration of charcoal meal and castor oil was determined by extract effect. These may show gastrointestinal motility by the inducing the intestinal fluid accumulation. In dose dependent anti-diarrhoeal EEPR may show some remarkable evidence. It may reduce the frequency defecation and also changes the consistency. Extract at 200 and 400 mg/kg body weight may reduce the diarrhoeal faces. At 200 and 400 mg/kg the EEPR may inhibit the gastrointestinal motility and castor oil induced enterpooling. In phytochemical screening, tannins, polyphenols, flavonoids and reducing sugar is been present in the leave of *Passiflora edulis sims*. No mortality and any kind of weakness were shown or observed by the administration of crude extract dose up to 3000mg/kg body weight in toxic study. these extracts did not show any hepatotoxic and nephrotoxic effects and very well used for traditional medicine.

**KEYWORDS:** *Passiflora edulis sims*, Diarrhoea, Anti-diarrhoeal activity; Castor oil-induced rat model

## 1. INTRODUCTION

In developing countries diarrhoea is the most leading cause of death. It's around 5 to 10millions death in each year. It was generally caused in infant and children which are below or under 5 years.<sup>1,2</sup> Africa is the most leading country in death rate. Around 2.3 million peoples are dead in India due to diarrhoea in every year.

Rotavirus may provoke the diarrhoeas in infants and in children under 5 year.<sup>3,4</sup> In diarrhoea, the semi-solid is been discharged and watery faecal matter from the bowels. It was done for three or more

times per day. The fluidity, volume and frequency of bowel movement, increases and decrease absorption of fluid, abdominal pain and loss of electrolytes and water.<sup>5,6</sup> Treatment is been done for the reduction in discomfort and inconvenience in bowel mobility and faeces frequency. Many countries around 90% of population may used medicinal plants for their treatment of diarrhoea.<sup>7,8</sup> Medicinal plants are used for the discovery of new anti-diarrhoea agents. *Passiflora edulis sims* may be found in India. Investigation shows that the ethanolic leave extract of



*Passiflora edulis sims* may show anti-diarrhoeal properties.<sup>9,10</sup>

## 2. MATERIALS AND METHODS

### 2.1 Preparation of Plant Extract

The plant were collected from local farm behind NCP, Erode District, Tamil nadu. The plant material was identified as *Passiflora edulis sims* (family Passifloraceae). The leaves were washed and air dried for five days and pulverized into coarse powder. The coarse powder was packed tightly in the Soxhlet apparatus and extracted with 500 ml 95% ethanol at 55 °C for 72 hours by continuous hot percolation method.

### 2.2 Experimental Animal

All experimental animals used were male albino rats (*Rattus norvegicus*) weighing between 180-250g and were obtained from the animal house of Nandha College of pharmacy and Research Institute. They were fed using standard laboratory rodent chow diet feed and given water *ad libitum*.

### 2.3 Experimental Design For Animal Study

Twenty-four (24) albino rats were used for every model of anti-diarrhoea. The anti-diarrhoeal activity of *Passiflora edulis sims* were studied by castor oil induced diarrhoea method. The *wistar albino* rats of either sex were divided into four groups of six each and were treated as per the following regimen. Group I: 0.5%w/v CMC vehicle control (10 ml/kg, p.o), Group II: Loperamide (5mg/kg, p.o.) Group III: EEPE (200 mg/kg, p.o), Group IV: EEPE (400 mg/kg, p.o). Animals in each group received castor oil at dose level of 2 ml/kg body weight by oral route after 30 min of drug administration. The animals were placed separately in cages with filter paper, which was changed every hour. All the animals were observed for defaecation up to 4 hrs. The frequency of defaecation and number of diarrhoeal faeces excreted in the recorded time were scored and compared with control group.

### PHYTOCHEMICAL SCREENING

The prepared extract was screened for the presence of tannins, flavonoids, alkaloids, sterols, saponins, polyphenols, anthraquinones and polyterpenes.

### GASTROINTESTINAL MOTILITY TEST

24 rats were divided into six group of four animals each. These animals were fastening up to 18 to 20 hours. the control group treated with normal saline water orally, while the rest of second, third and fourth group is been treated with plant extract orally

with a dose of 200, 400 and 600mg/kg body weight. Fifth and sixth group may receive the standard drug of Loperamide (5mg/kg body weight). After the completion of one hour, the rat were given a charcoal meal through oral route. These rats are been sacrificed after one hours by opening of abdomen. Distance is been measured from pylorus to caecum in intestinal and percentage were expressed. These are calculated by:

$$\text{Percentage of transit inhibition} = (T_0 - T_1/T_0) \times 100$$

Where T<sub>0</sub>= intestinal length

T<sub>1</sub>= test group charcoal distance

### Castor oil-induced enteropooling

24 rats were divided into six group of four animals each. After the completion of one hour the castor oil administered group is received normal saline orally. This controlled group. Second and third group may contain the standard drug loperamide (5mg/kg). Fourth, fifth and sixth group may contain 200, 400 and 600mg/kg body weight. After the completion of experiment these rats are sacrificed and the part of small intestine (pylorus to caecum). The intestinal content were recovered and their volume was measured.

### ACUTE TOXICITY STUDY

24 rats were divided into six group of four animals each. The ethanolic extract of *Passiflora edulis sims* was orally administered at a dose of 200, 400 and 600mg/kg body weight. Normal saline water is been received by controlled group. Every 48 hours the symptoms of toxicity, food, water and mortality were recorded up to 14 days.

### STATISTICAL ANALYSIS

Results were expressed as mean ± SEM. Statistical significance were determined by one way Analysis of Variance (one way ANOVA) followed by Dunnett's 't' test with level of significance set at P < 0.01 to determine the significance.

### RESULT AND DISCUSSION

#### Physiochemical screening

Chemical constituents	<i>Passiflora edulis sims</i>
Sterols	-
Polyphenols	+
Flavonoids	++
Saponin	-
Tannins	++
Alkaloids	-
Anthraquinones	-
Reducing sugar	+

Figure 1. physiochemical screening



**Effect of ethanol extract on castor oil-induced diarrhoea**

In castor oil induced diarrhoea experiment, the ethanol extract produces anti-diarrhoeal effect in rats. The total number of diarrhoeal faeces are 12.20±1.06 and 6.20±0.58 and 6.44±2.09 for 200, 400 and 600mg/kg. These doses may be inhibiting the

diarrhoeal faeces. The highest dose of extract was similar to loperamide (5.20±1.15). In our study, the faeces of diarrhoea are with in the limit in controlled group and 4 hours in another groups after induction of diarrhoea. The effect in 200mg/kg extract group was same as in control group.

S.no	treatment	Total no of faeces	Total no of diarrhoeal faeces	% of protection
1	Control (normal saline) +castor oil	22.809±0.86	18.60±0.74	.....
2	Loperamide(5mg/kg) +Castor oil	9.80±1.65	5.20±1.15	72.04
3	EEPE (200mg/kg) +Castor oil	19.80±0.73	12.20±1.06	34.40
4	EEPE (400mg/kg) +Castor oil	15.60±1.80	6.20±0.58	67.04
5	EEPE (600 mg/kg) +castor oil	18.62±1.58	6.44±2.09	69.49

**Table 1.Effect of ethanolic extract of *Passiflora edulis sims* on anti- diarrhoeal activity indicating diarrhoeal index and % of diarrhoeal protection**

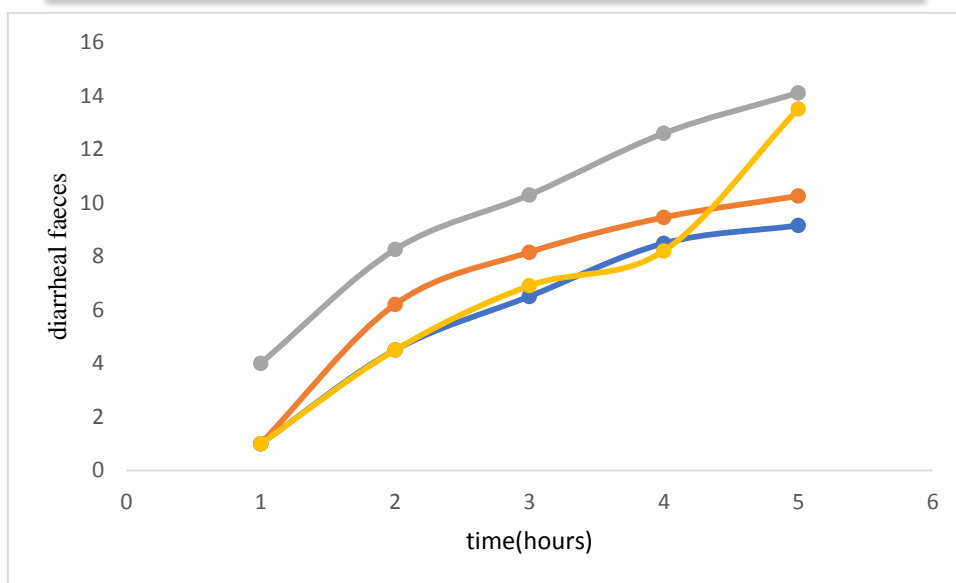
**Effect of ethanol extract on gastro-intestinal of charcoal meal**

The ethanol extract of *Passiflora edulis sims* was decreases the charcoal meal in rat gastrointestinal

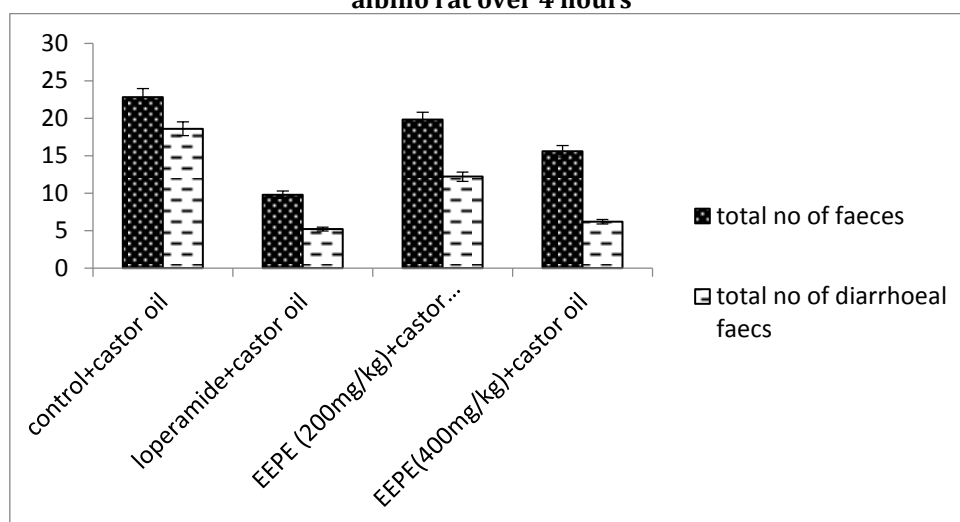
tracts by 19.82±0.75 and 15.62±1.98 at 200 and 400mg/kg to the control (89.59 ±16.84). reduction in gastrointestinal transit of charcoal meal in rats were achieved by Loperamide (9.80±1.65).

Groups	Diarrhoeal faeces			
	D1	D2	D3	D4
Control	1.1±2.5	1.2±1.7	4.2±2.5	1.2±1.2
Loperamide	4.5±0.5	6.2±0.9	8.25±0.7	4.61±1.9
EEPR 200	6.5±0.6	8.15±0.6	10.29±0.8	6.91±0.5
EEPR400	8.4±0.4	9.45±0.7	12.59±0.6	8.25±0.7
EEPR600	9.1±0.9	10.25±0.6	14.5±0.6	13.96±0.8

**Table 2. effect of ethanol extract of *Passiflora edulis sims* on diarrhoeal faces in albino rat over the course of 4 hours**



**Figure 2. effects of ethanol extract of *Passiflora edulis Sims* on castor oil-induced diarrhoea in albino rat over 4 hours**



**Figure 3. Effect of *Passiflora edulis Sims* on castor oil induced Model Indicating total no of faeces and inhibition of diarrhoeal faeces**

**Effect of ethanol extract *Passiflora edulis Sims* on castor oil-induced enteropooling** -The ethanol extract ( $P < 0.01$ ) inhibits the castor-oil-induced enteropooling by

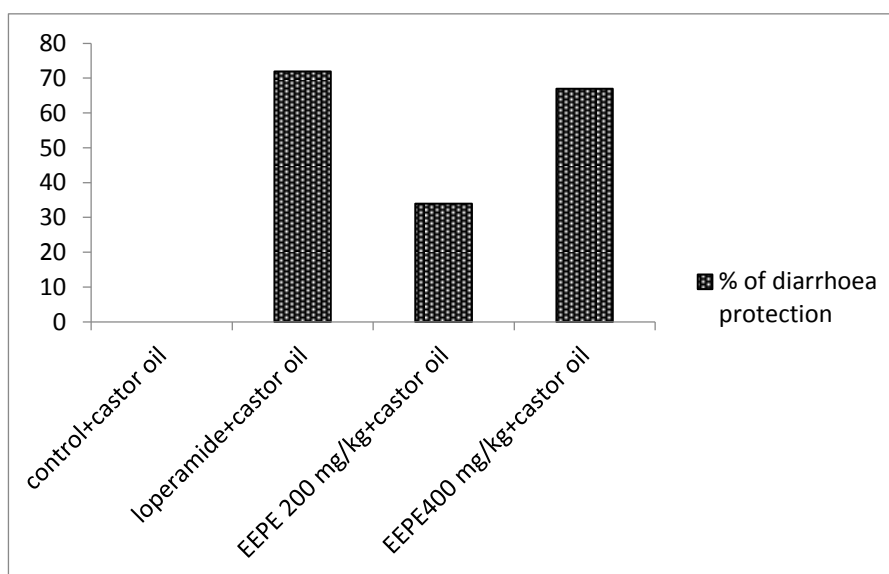
34.40 % and 67.04.% at 200 and 400mg/kg compared to control. Loperamide reduces the volume of intestine contents by 72.04 % ( $P < 0.01$ ).

Group	Total distance of intestine(cm)	Distance travel by charcoal (%)	Mobility inhibition
Control	114.15±8.25	89.08±16.59	22.15
Loperamide	112.45±5.78	46.57±28.49	61.29
EEPR 200	108.26±8.49	67.12±9.59	39.48
EEPR400	105.28±8.16	43.19±9.31	61.29
EEPR600	108.19±7.19	39.16±10.65	65.12

**Table 3. effect of ethanol extract on intestinal transit of charcoal meal in rats**



Group	Volume of intestinal fluid (ml)	Inhibition of intestinal fluid (%)
Control	3.15±0.16	-
Loperamide	2.45±0.18	35.18
EEPR 200	4.26±0.17	0.89
EEPR400	3.48±0.19	20.59
EEPR600	2.15±0.02	24.19

**Table 4. effect of ethanol extract on castor oil induced enteropooling in rats****Figure 4. Effect of *Passiflora edulis sims* on castor oil induced Model Indicating Percentage Diarrhoeal Protection**

### Acute Toxicity Study

The behaviour and faeces of animals were normal. There is no sign of weakness or mortality in rats receiving up to 3000mg/kg body weight by oral administration of ethanol extract of *Passiflora edulis sims*. These may show that the extract of leave of *Passiflora edulis sims* is safe or non-toxic in rats.

### DISCUSSION

The present study is to explain the anti-diarrhoeal activity of ethanolic leaf extract of *Passiflora edulis sims* in albino rats. In the castor oil-induced diarrhoea experiment, the extract of *Passiflora edulis sims* produced a significantly ( $p < 0.01$ ) antidiarrheal effect in the rats. Castor oil, its active component rich in oleic acid induces permeability changes in mucosal fluid and electrolyte transport that results in a hypersecretory response and diarrhoea.

Reported anti diarrhoeal effect of extract of *Passiflora edulis sims* may be due to tannins and flavonoids and Phytochemical screening of the extracts revealed the presence of flavonoids, tannins.

### CONCLUSION

The result of this study confirms the use of the ethanolic extract of leaves of *passiflora edulis sims* in traditional management of anti-diarrhoeal effect. Further study is required to isolate the active phytochemical constituents present in the extract and pharmacological studies on the healing action of drug as well as on the possible side effects. The investigation on mode of action may pave way for establishment of new anti-diarrhoea therapy regimen.

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# SIMULTANEOUS DETERMINATION OF LAMOTRIGINE AND OXCARBAZEPINE IN PLASMA USING -HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

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## ABSTRACT

A simple, fast and efficient method based on ultrasound-assisted emulsification microextraction (USAEME) followed by HPLC has been developed for simultaneous determination of oxcarbazepine (OXZ and Lamotrigine (LTG) in biological samples. The influence of different parameters affecting the USAEME procedure was evaluated to optimize the efficiency of the process. At these conditions, validation of the proposed method was performed based on European medicines agency guidelines. The proposed method showed good linearity in plasma samples ranging from 0.25 to 6 µg/mL and 0.13 to 6 µg/mL ( $R^2 \geq 0.99$ ) for OXZ and LTG, respectively. The precision of the proposed method was evaluated for repeatability which was  $\leq 12\%$  ( $n = 5$ ). The detection limits of 0.06 and 0.05 µg/mL were obtained for OXZ and LTG, respectively. The proposed method can be applied as an effective technique for therapeutic drug monitoring of OXZ and LTG in plasma of epileptic patients.

**KEYWORDS:** *ultrasound-assisted emulsification microextraction, oxcarbazepine Lamotrigine, HPLC, plasma analysis*

oxcarbazepine and Lamotrigine are anticonvulsant drugs generally used to prevent or reduce the severity of epileptic fits and other convulsions [1]. Antiepileptic drugs are of those drugs that require therapeutic drug monitoring (TDM) in order to maintain relatively constant concentration of drug in bloodstream to optimize patients' clinical outcome [2, 3]. Hence, there is a need for routine monitoring of antiepileptic drug concentrations in blood samples especially of OXZ and LTG with narrow therapeutic ranges to prevent the unwanted effects and to improve clinical management of patients with epilepsy. The recommended therapeutic concentrations of OXZ are between 4–12 µg/mL in serum and those of LTG are between 1–4 µg/mL in plasma [3].

The most common method for TDM of antiepileptic drugs in biological fluids and drug products is based on HPLC [4–6]. The advantages of HPLC for antiepileptic drugs determination are its adaptability and simplicity of sample preparation as well as a broad linearity of detectors. In addition, gas chromatography has been described in the literature for determination of LTG and OXZ in biological fluids and drug products [7, 8].

Determination of drug concentrations in blood samples requires an excellent sample preparation



procedure which influences the purity of the sample introduced into the chromatographic system. The most common ways to extract these antiepileptic drugs are liquid-liquid extraction (LLE) [9, 10] and solid-phase extraction (SPE) [11, 12]. However, in spite of their general co-administration by epileptic patients, very few methods have been proposed for simultaneous determination of LTG and OXZ [7, 9, 13].

Application of traditional LLE and SPE methods was limited due to such disadvantages as solvent losses, large secondary wastes, tedious procedure and complex equipment. The microextraction techniques effectively overcome these problems through eliminating or reducing the amount of organic solvent. Additionally, extraction and preconcentration are done in one step. Solid-phase microextraction [7, 14] and dispersive liquid-liquid microextraction [15, 16] have been applied for some antiepileptic drugs. Ultra-sound-assisted emulsification microextraction with applying both low and heavy density organic solvents is one of the alternative dispersion techniques in which the need of disperser solvent was eliminated through using the ultrasonic radiation [17-19].

In this work, USAEME based on emulsification of micro volumes of low-density organic solvents in aqueous samples coupled with HPLC was successfully developed for simultaneous determination of OXZ and LTG in human plasma.

## EXPERIMENTAL

**Materials.** oxcarbazepine and Lamotrigine were purchased from Aldrich. The stock solutions (1000 µg/mL) of them were prepared in methanol and were stored at -4°C far from the light. The working standard solutions of OXZ and LTG were prepared by diluting the above stock solutions with double distilled water.

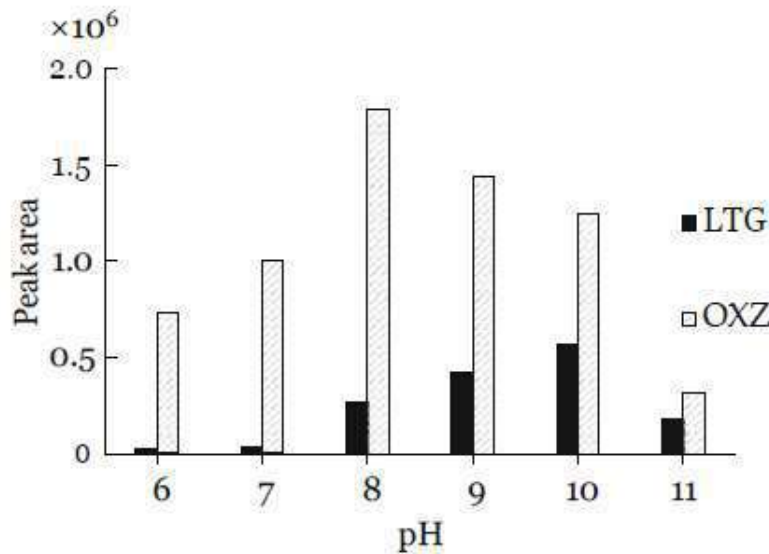
All materials and solvents, such as toluene, cyclohexanol, *n*-dodecan, 1-octanol and 2-octanon, of analytical grade were purchased from Merck Company (Darmstadt, Germany). Methanol and acetonitrile (HPLC grade) were purchased from Caledon (Georgetown, Canada) for HPLC mobile phase.

**Instrumentation.** Separation and determination of analytes were performed on a PerkinElmer HPLC system Series 200 equipped with a manual injector and a UV-Vis detector. All chromatographic separations were carried out on an Eclipse plus C18 column (100 × 4.6 mm, 3.5 µm particle size) from Agilent. A mixture of 10 mM potassium dihydrogen phosphate buffer at pH 6 and acetonitrile (70 : 30, v/v) at a flow rate of 1.0 mL/min was used as the mobile phase in isocratic elution mode. The detection was performed at the wavelength of 220 nm.

An ElmaSonic ultrasonic bath (frequency of 37 kHz and power of 0.138 kW) was used for emulsification of extraction organic solvent. All pH measurements were done at 25 ± 0.1°C using a pH meter (713, Metrohm, Herisau Switzerland) with a standard uncertainty of 0.1 mV.

**Ultrasound-assisted emulsification microextraction procedure.** All extractions were performed in a special centrifuge tube with a capillary tube at the top of the centrifuge vial which is suitable to collect the floated low-density organic extraction solvents [20]. The tube was placed into an ultrasonic water bath. Then, 60 µL of 1-octanol was gently injected into 10 mL of sample solution (pH 10) containing OXZ and LTG and 20% (w/v) NaCl. A cloudy solution was observed after sonication for 30 s due to the formation of emulsified fine droplets of organic solvent in the aqueous solution. The solution was then centrifuged at 5000 rpm for 8 min leading to disruption of emulsified 1-octanol. Finally, 20 µL of floated organic solvent was injected into the HPLC-UV instrument for analysis.

**Sample preparation.** Drug-free plasma samples obtained from six healthy volunteers (taking no medication) spiked with OXZ and LTG were used to prepare calibration curves and to conduct validation tests. All plasma samples were stored at -18°C prior to analysis. The blood samples were taken from four patients with epilepsy in therapy with Tegretol® 200 mg, Lamictal® 50 mg and Lamogin 100 mg twelve hours after taking the previous dose (before the morning dose), transferred to plasma separator tubes containing EDTA-Na and centrifuged at 3000 rpm for 15 min to obtain plasma. Working plasma samples were prepared by diluting 2 mL of plasma with 8 mL of phosphate buffer solution (pH 10) to bring the concentrations of OXZ and LTG in the working range.



**Fig. 1. Effect of pH on the extraction efficiency of oxcarbazepine and Lamotrigine. Extraction conditions: sample solution—10 mL of 2 µg/mL oxcarbazepine and Lamotrigine in phosphate buffer (pH 10), extraction solvent—50 µL of toluene, salt concentration – 20%, emulsification time—30 s, centrifugation time—8 min.**

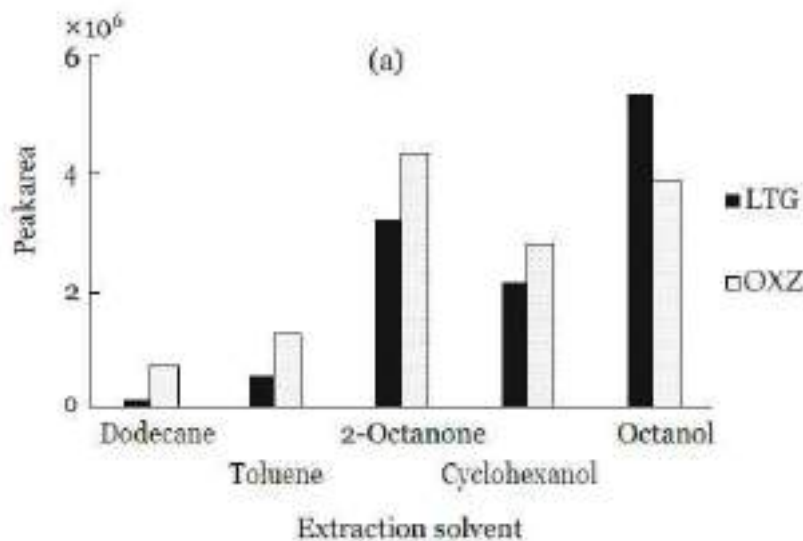
## RESULTS AND DISCUSSION

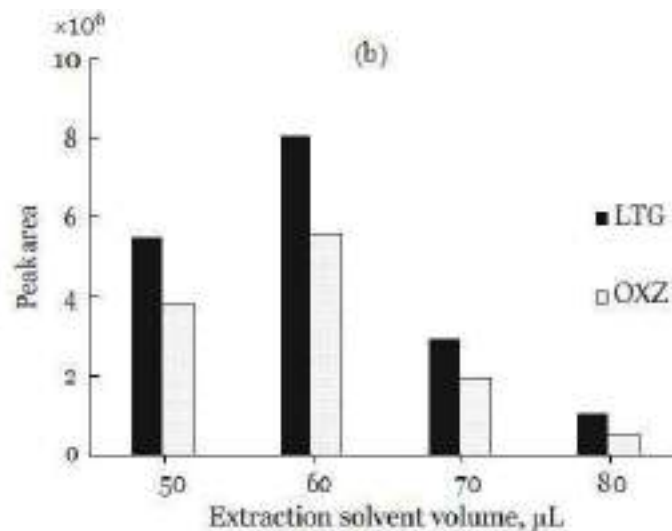
In the present study, simultaneous measurement of two drugs, Lamotrigine and oxcarbazepine was carried out in human plasma using the USAEME providing enhanced extraction efficiency and reduced extraction time with small consumption of organic solvent.

In order to obtain high-enrichment factor, the effects of different parameters were optimized. These parameters were the type and volume of the extraction solvent, pH, extraction time and ionic strength. Finally, these optimal conditions were applied to determine OXZ and LTG in plasma samples.

Effect of pH on the extraction efficiency. pH optimization is one of the crucial steps for basic and acidic analytes. Adjusting the sample pH to the value where the compound is in the neutral form with more hydrophobic property drastically enhances the extraction efficiency. As the studied drugs contain basic functional groups, the pH effect was investigated within range of 6–11 shown in Fig. 1. The maximum extraction efficiency was obtained at pH 8 and 10 for OXZ and LTG, respectively. The adjustment of solution to pH greater than 8 resulted in OXZ and LTG existing mainly in non-ionic forms. Therefore, pH 10 in which both drugs had acceptable extraction efficiency was chosen as the optimum pH in all subsequent experiments.

Influence of extraction solvent and its volume on the extraction efficiency. In the USAEME method like other extraction methods, solvent should have low





**Fig. 2. Effect of different extraction solvents (50  $\mu\text{L}$ ) (a) and extracting solvent volume (b) on the extraction efficiency of Carba-mazepine and Lamotrigine. Extraction conditions: sample solution—10 mL of 2  $\mu\text{g}/\text{mL}$  oxcarbazepine and Lamotrigine in phosphate buffer (pH 10), salt concentration—20%, emulsification time—30 s, centrifuge time—8 min.**

water solubility, high extraction capability of target analytes and it should be compatible with HPLC. Organic solvents with lower density than water including toluene, cyclohexanol, *n*-dodecan, 1-octanol and 2-octanon were examined. The results shown in Fig. 2a revealed that 1-octanol offered the highest peak area among the solvents. Different extraction efficiencies of these solvents are attributed to their differing polarities, viscosities and emulsification powers. Based on observed results, 1-octanol was chosen as the optimum extraction solvent for subsequent studies.

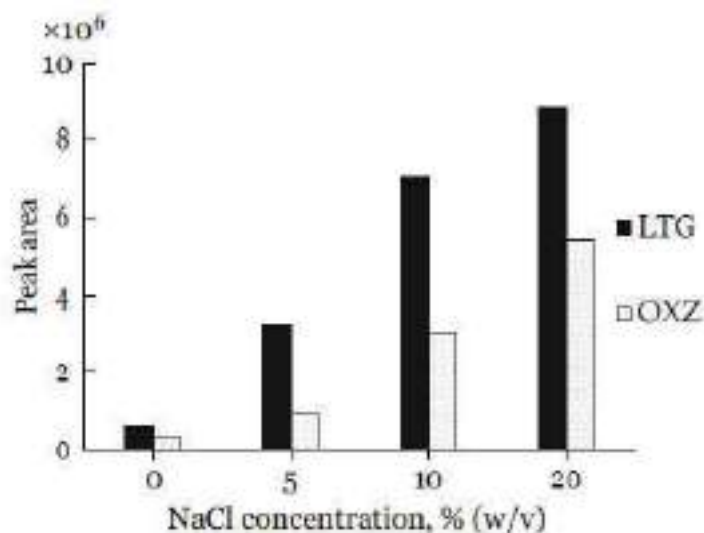
In order to optimize the extraction solvent volume, the volume of 1-octanol was studied in the range of 30–100  $\mu\text{L}$ . As shown in Fig. 2b, the highest peak area was obtained at 60  $\mu\text{L}$ . When 30 and 40  $\mu\text{L}$  of 1-octanol were used the volume of collected extraction solvent was very small to inject into the HPLC system. At higher volumes (>60  $\mu\text{L}$ ), the volume of sedimented phase was increased while the peak area was decreased. This observation might be attributed to the decreased enrichment factor in larger extraction solvent volume. So, the volume of 60  $\mu\text{L}$  was selected as the optimal extraction solvent volume for further studies.

**Effect of ionic strength.** Adding a salt to increase the ionic strength usually improves the extraction efficiency due to decrease in the solubility of analytes in the aqueous phase (the salting out effect). The most common salt to investigate the ionic strength is sodium chloride. Different concentrations of NaCl in the range of 0–20% (w/v) were examined. The obtained results are shown in Fig. 3. The results indicated that the extraction efficiency increased with increasing NaCl concentration. Thus, 20% salt was used for preparing sample solutions in further experiments.

**Method evaluation.** Linearity behavior of the USAEME-HPLC method for extraction of OXZ and LTG was tested under optimum conditions. The calibration graphs in plasma were linear in the ranges of 0.25–6  $\mu\text{g}/\text{mL}$  and 0.13–6  $\mu\text{g}/\text{mL}$  for OXZ and LTG, respectively. The reported detection limit (LOD) values were obtained based on practical experiments. For this purpose, the concentrations of analytes were reduced until the obtained HPLC-UV responses for the drugs created detectable signals-to-noise ratios of 3 at the retention times related to target drugs. The limit of quantitation (LOQ) values were considered as the signal-to-noise ratios of 10. The obtained LODs and LOQs for OXZ and LTG were in the ranges of 0.03 to 0.04 and 0.10 to 0.13  $\mu\text{g}/\text{mL}$  in water and 0.05 to 0.06 and 0.17 to 0.20  $\mu\text{g}/\text{mL}$  in plasma samples, respectively. The results are summarized in Table 1. The preconcentration factor (PF) was defined as the ratio of the final analyte concentration in the acceptor phase ( $c_f$ , a) to the initial concentration of analyte in the sample solution ( $c_i$ , S), where  $c_f$ , a was calculated from a calibration graph obtained from the direct injection of the standard solution. The obtained PF values for OXZ and LTG were in the ranges of 85 to 117 and 56 to 65 in water and plasma samples, respectively. To evaluate the repeatability of the proposed method, peak areas of five



replicate measurements at the concentration of 3 µg/mL (50% of the calibration curve range) of OXZ and LTG were used and expressed as the relative standard deviation (RSD, %).



**Fig. 3. Effect of salt concentration on the extraction efficiency of oxcarbazepine and Lamotrigine.** Extraction conditions: sample solution—10 mL of 2 µg/mL oxcarbazepine and Lamotrigine in phosphate buffer (pH 10), extraction solvent—1-octanol, extraction solvent volume—60 µL, emulsification time—30 s, centrifuge time—8 min.

**Table 1. Figures of merit of the ultrasound-assisted emulsification microextraction-HPLC method for oxcarbazepine and Lamotrigine determination in water and plasma samples**

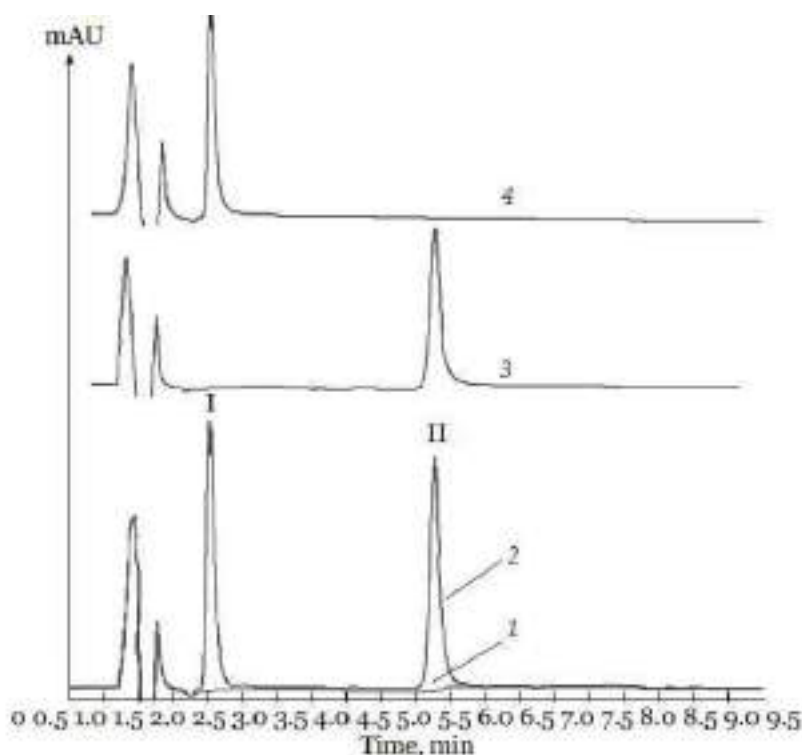
Drug	Matrix	DLR <sup>a</sup> , µg/mL	LOD, µg/mL	LOQ, µg/mL	RSD, % (n = 5)	EF <sup>b</sup>	R <sup>2</sup>
OXZ	Water	0.05–6	0.04	0.13	5.3	117	0.999
	Plasma	0.25–6	0.06	0.20	8.9	65	0.998
LTG	Water	0.05–6	0.03	0.10	4.2	85	0.999
	Plasma	0.13–6	0.05	0.17	7.7	56	0.997

<sup>a</sup> DLR—dynamic linear range, <sup>b</sup> EF—enrichment factor.

**Table 2. Method validation data for target drugs determination in spiked healthy human plasma using the ultrasound-assisted emulsification microextraction-HPLC procedure**

Drug	Spiked concentration, µg/mL	Found ± SD <sup>a</sup> , µg/mL	Accuracy <sup>b</sup> , %	RR <sup>c</sup> , %	Precision <sup>d</sup> , %	
					intra-day <sup>e</sup>	inter-day <sup>f</sup>
OXZ	0.25	0.23 ± 0.00	-8.0	92	10.4	11.1
	0.75	0.68 ± 0.07	-9.3	91	9.4	10.6
	3.3	3.3 ± 0.3	+0.3	100	8.9	8.3
	4.1	4.0 ± 0.3	-3.6	96	6.5	7.2
LTG	0.13	0.14 ± 0.02	+7.7	108	11.6	11.9
	0.39	0.35 ± 0.04	-10.3	90	10.2	11.5
	2.8	2.6 ± 0.2	-6.8	93	7.7	8.4
	4.1	4.3 ± 0.3	+4.4	104	7.2	9.5

<sup>a</sup> SD—standard deviation; <sup>b</sup> expressed as relative error, %; <sup>c</sup> RR—relative recovery; <sup>d</sup> expressed as RSD, %; <sup>e</sup> intra-day precision was calculated by analysis of five replicates samples within one day (n = 5); <sup>f</sup> inter-day precision was calculated by analysis of five replicates over a period of 5 days (n = 5).



**Fig. 4. Chromatograms obtained by the USAEME–HPLC method from non-spiked healthy human plasma (blank plasma) (1), spiked healthy human plasma with 5 µg/mL Lamotrigine (I) and oxcarbazepine (II) (2), non-spiked plasma of epileptic patient in therapy with Tegretol® daily 400 mg (subject 2) (3) and non-spiked plasma of epileptic patient in therapy with Lamogin® daily 100 mg (subject 3) (4).**

As the quality control (QC) sample was not available, the spiking method was used to validate the proposed method. For this purpose, the intra-day precision (repeatability) and inter-day precision (reproducibility) values were calculated by analyzing five replicates of spiked healthy plasma within one day and

**Table 3. oxcarbazepine and Lamotrigine determination in plasma of epileptic patients using ultrasound-assisted emulsification microextraction–HPLC**

Subject <sup>a</sup>	Drug	Found ± SD, µg/mL	Precision (RSD, %, n = 3)
1 <sup>b</sup>	OXZ	5.3 ± 0.4	7.9
2 <sup>c</sup>	OXZ	3.0 ± 0.3	8.6
3 <sup>d</sup>	LTG	3.7 ± 0.3	8.4
4 <sup>e</sup>	LTG	0.53 ± 0.05	10.2

<sup>a</sup> All blood samples were taken 10 h after taking the previous dose, <sup>b</sup> epileptic patient in therapy with Tegretol® 200 mg (400 mg/day), <sup>c</sup> epileptic patient in therapy with Tegretol® 200 mg (200mg/day), <sup>d</sup> epileptic patient in therapy with Lamogin® 100 mg (100 mg/day), <sup>e</sup> epileptic patient in therapy with Lamictal® 50 mg (50 mg/day).



during five consecutive days, respectively. The results are summarized in Table 2. The precisions were calculated at four different concentration levels of LTG and OXZ according to European medicines agency recommendations [21]: the lower limit of quantification (LLOQ, the lowest calibration standard), within three times the LLOQ (low QC), around 50% of the calibration curve range (medium QC) and at 75% of the upper calibration curve range (high QC). The intra- and inter-day precisions were expressed as the percent RSD. The obtained results represented favorable inter- and intra-day precisions (less than 12%) for OXZ and LTG determination in plasma samples. The accuracy (relative error) values of the method were in the range of -10.2 to +7.7%. In addition, relative recovery (RR, %) of the proposed method was calculated by the following equation [22]:

$$RR(\%) = (c_{\text{found}} - c_{\text{real}}) / c_{\text{added or spiked}} \times 100. \quad (1)$$

Finlay, the USAEME-HPLC method was used for therapeutic drug monitoring of under OXZ and LTG therapy. Figure 4 shows the HPLC chromatograms of plasma samples taken from a healthy and two patients with epilepsy receiving LTG and OXZ treatment. Peak shapes in patient chromato-

**Table 4. Comparison of some figures of merit reported in literature for oxcarbazepine and Lamotrigine determination in plasma**

Method	Drug	Linearity range, µg/mL	LOQ, µg/mL	Extraction time, min	Reference
SPME <sup>a</sup> -LC	OXZ	0.05–10	0.2	30	[23]
	LTG	0.2–20	0.5		
SBSE <sup>b</sup> /HPLC-UV	OXZ	0.08–40	0.08	50	[6]
SPE-LC-DAD <sup>d</sup>	OXZ	2–40	0.08	60	[24]
LLE [21] PLC-UV	OXZ	0.1–5	0.173	60	[25]
USAEME [21] PLC-UV	OXZ	0.25–6	0.13	0.5	Present work
	LTG	0.13–6	0.13		

<sup>a</sup> SPME—solid-phase microextraction, <sup>b</sup> SBSE—stir bar-sorptive extraction, <sup>c</sup> DAD—diode array detector.

grams were similar to those obtained using spiked blank plasma and no interferences from matrix were observed. No interfering peaks appeared at the retention times of the drugs. The results indicated good performance of the presented method for LTG and OXZ determination in plasma samples. Drug concentrations found in these subjects are shown in Table 3.

Table 4 shows a comparison between the characteristics of the proposed method and those of some methods described in the literature for determination of OXZ and LTG in plasma. The proposed method presents LODs comparable with those reported by other methods. In most reported techniques, the extraction step requires much time comparing to the USAEME (less than 1 min). The application of ultrasonic radiation accelerates the mass-transfer process between two immiscible phases. Due to the large contact area between two phases, extraction efficiency increases in a short time. Moreover, the use of just a few microliters of organic solvent for extraction makes the proposed method environmentally friendly.

## CONCLUSIONS

In the present study, the applicability of the USAEME-HPLC-UV method was evaluated for OXZ and LTG determination in plasma samples. The obtained results demonstrate that the proposed method exhibits simplicity and high preconcentration factor in a very short time and, therefore, can be successfully applied for determination OXZ and LTG in different biological samples. Application of the USAEME as an effective preconcentration microextraction technique provided LODs and precisions acceptable for TDM of OXZ and LTG in plasma samples.



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## **ANALYSIS OF ARCHAIC WORDS IN THE STRUCTURE OF ENGLISH AND UZBEK PROVERBS**

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### **ABSTRACT**

*Reading and understanding examples of folklore, to interpret some of the outdated, archaic words and phrases in them are quite problematic issue. To overcome this difficulty, it is important to analyze outdated historical and archaic words. Due to the urgency of this issue, in this article the relevant conclusions and recommendations for overcoming such complexities are given.*

**KEY WORDS:** *proverbs, archaisms, historisms, language change, outdated vocabulary*

### **INTRODUCTION**

Language is considered to be a dynamic process, not a steady phenomena. As the time passes by, the word stock, that is, the vocabulary of any language modifies by being supplemented with new words and expressions appearing simultaneously with the alterations of the culture, social life of people, development of science, national identities and people's mentality. A certain part of the outdated words in the language usually drops out of the vocabulary of the language completely or remain as elements performing purely historical descriptive functions. As an example, the word "aboard" was used for expressing the meaning of "out of doors", but overtime this word changed into preposition, which expresses to be on a ship, plane or train, moreover, out of the country. This list can be continued to **purblind** (short-sighted), **lurdan** (an idle or incompetent person), **coz** (cousin), **afeard/afeared** (frightened) and others. Such archaic words are preserved mainly in the genres of folklore, including proverbs, riddles, fairy tales and epics.

Therefore, we can say that our research work has a paremiologic features that combine the origin, etymological, semasiological sides of proverbs. Any attempt to describe the present state of proverb scholarship and its desiderata for the nature must by necessity look back upon past accomplishments.

### **MATERIALS AND METHODS**

Archaic words have attracted the attention of scientists throughout the world. In particular, M.Ondar [1] analyzes outdated words in the texts of Tuvan heroic tales and divided archaic words into the following thematic groups: words referring to the character's title or status; names of military weapons and attributes of the hero; words referring to household items; and names of human body parts. Karagulova [2] identified a set of archaisms, acquired new terminological meanings, which will serve as a material for compiling glossaries in law and medicine, as well as a linguistic means for professionals of law and medicine. Dobrovolska [3] presents the results of a study of functional, semantic and chronological issues concerning Middle English occupational terms with Scandinavian word stems.

In Uzbek linguistics, the issue of archaic words were included in the works of N.Turniyazov and A.Rahimov [4], M.Hamroyev et.al.[5], Ulmas Sharipova and Ibrohim Yuldashev [6]. But they have confined themselves to explaining and giving examples of the term archaism, as well as to distinguishing it from historical words.

In order to accomplish the tasks of the research, we used system-structural, historical-comparative and descriptive methods, moreover, methods of etymological, functional, comparative,



statistical, semantic analysis, as well, the component analysis in this work.

## RESULTS AND DISCUSSIONS

The interest in proverbs can, after all, be traced back to the earliest Sumerian cuneiform tablets and the philosophical writings of Aristotle. Renaissance scholars, such as Erasmus of Rotterdam, and modern folklorists, such as Archer Taylor, have all built on previous research as they put forth their own collections and studies of proverbs. There is indeed an impressive history of the two major aspects of proverb scholarship, i.e., the collection of proverbs (paremiography) and the study of proverbs (paremiology). Naturally these two branches are merely two sides of the same coin, and some of the very best research on proverbs combines the two in perfect harmony. Although the identification of traditional texts as proverbs and their arrangement in collections of various types are of paramount importance, proverb scholars have always known that the interpretation of their use in oral or written speech act is of equal significance.

Coming to the definition of an archaic words, they are the use of a form of speech or writing that is no longer current. Another term that can be confused with an archaism is historicism. Historisms belong to obsolete words. The causes of their appearance are extralinguistic. It is the denotatum that is outdated. They are very numerous as names for social relations and institutions and objects of material culture of the past. The names of ancient weapons, types of boats, types of carriages, instruments belong to historicisms: battle axe, battering ram. In proverbs' content, we come across a great number of historicisms. Such as, "anvil", which is a heavy usually steel-faced iron block on which metal is shaped (as by hand hammering), the original background of this word dates back to Middle English *anfilt*, from Old English; akin to Old High German *anafalz* anvil; akin to Latin *pellere*, meaning to beat. In the proverb "*The church is an anvil which has worn out many hammers*" this historicism was used to express a stylistic meaning.

Archaisms differ from historicisms in this respect that they are obsolete names for existing objects. Archaisms always have synonyms: to deem – to think, glee – joy. Great number of proverbs contain archaisms in their content, which we aim to discuss in this work.

Coming to the specific features of archaic words in English proverbs, we have analyzed more than 600 proverbs, and found out ninety archaic units used in the context, let's see one of them:

- *As good be an addled egg as an idle bird*

Conducting the morphological analysis of the word "addled", it is the 2<sup>nd</sup> verb form of "addle", that means to confuse someone so they cannot think properly. From the etymological point of view, it has come from Middle English *adel* – (in *adel eye* "putrid egg"), attributive use of Old English *adela* is "filth, filthy or foul-smelling place," going back to Germanic *adela*, *adelōn*. However, in proverbs, this word expresses an archaic meaning to become rotten, (for eggs producing no chick): *As good be an addled egg as an idle bird*. The core meaning of this is perfectly appropriate to :

"A person who is inactive or does not work is as much useless as a rotten egg".

Or another explanation, addled egg expresses an egg that is no longer good to eat or spoiled, and idle bird lays no eggs. So the result is the same, to have a rotten egg equal to have no eggs, we suppose that it can be applied to any useless item that we have.

The context that gives closer meaning, also has an archaic word "so'fi"

*Amali yo'q so'fidan, tuxumi yo'q tovuq yaxshi.*

*Echki yugurib lang bo'lmas.*

The archaic word "lang" means "Lame", that is a person who unable to walk without difficulty as the result of an injury or illness affecting the leg or foot. Such examples are very common.

The modern version is "cho'loq", we know that Amir Temur is also called "Temur Lang". Here the proverb means that the person who works will never be harmed

To look backwards for the use of proverbs, we must not forget to investigate their traditional and innovative use in our own time. Proverbs, those old means of generationally-tested wisdom, help us in our everyday life and communication to cope with the complexities of the modern human condition.

Let's look through next proverb containing the archaic word "beget":

*Length begets loathing.*

The word "beget" literarily mean to bring (a child) into existence, or form, create, develop, cause, bring about, give rise to and others. Here, the word comes to identify to cause, by saying "if the close people will not see each other for a long time or will not talk or communicate for a lengthy period, this affect their relationship". Another definition is given in the book "The facts on file dictionary of proverbs" (2007) by Martin Manser, as follows: "Nobody likes a long-winded speaker or a writer". In both explanations, the archaic meaning of this word defines to cause and to bring about. This archaic word also used in the following form:



*Love begets love.*

In two versions, the archaic meaning of the word *beget* retains its archaic concept. Another proverb containing archaic word “clout”:

*Never cast a clout, till May be out*

A clout is an old word for a piece of clothing. Some people think “May” refers to the month but others take it to mean the May flower or hawthorn. The tree flowers in late April or early May. In other words, the old saying means don't take your warm clothes off until the May blossom is out because cold weather can return during the spring months which is what is happening at the moment.

Let's look first at the 'cast a clout' part. The word “clout”, although archaic, is straightforward. Since at least the early 15th century “clout” has been used variously to mean “a blow to the head”, “a clod of earth or (clotted) cream” or “a fragment of cloth, or clothing”. It is the last of these that is meant in “cast a clout”. This was spelled variously spelled as clout, clowte, cloot, clute.

So, “never cast a clout...” simply means “never discard your [warm winter] clothing...”.

The “till May be out” part is where the doubt lies. On the face of it this means “until the month of May is ended”.

Here is another interpretation. In England, in May, you can't miss the Hawthorn. It is an extremely common tree in the English countryside, especially in hedges. Hawthorns are virtually synonymous with hedges. As many as 200,000 miles of hawthorn hedge were planted in the Parliamentary Enclosure period, between 1750 and 1850. The name 'haw' derives from 'hage', the Old English for 'hedge'.

The tree gives its beautiful display of flowers in late April/early May. It is known as the May Tree and the blossom itself is called May. Using that allusion, 'till May is out' could mean, 'until the hawthorn is out [in bloom]'.

All in all, although the May blossom interpretation seems appealing, the 'May' in this proverb is the month of May. Uzbek equivalents of this proverb can be “suv ko'rmaguncha etingni yechma”, “xamir qormaguncha tandinga o't yoqma” and others.

## CONCLUSION

The most interesting and at the same time sophisticated process in the study of linguistics is a change of a language in a course of time. Complicated word integrations, appearing and evanescence of words, phraseological units, and grammatical constructions – all these are undividable part of language progress. We can compare archaisms with an echo of ancient times, because

they deliver us information about cultural life of previous generations. Archaisms also reflect an inner aspect of people consciousness.

In conclusion, archaic words are preserved mainly in the genres of folklore, including proverbs, riddles, fairy tales and epics. We analyzed more than 600 proverbs and found 19 examples that contains archaic words. In this article, we have tried to explain the contextual meaning of archaic words in the proverbs, and have given their Uzbek equivalents.

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# PHILOSOPHICAL ANALYSIS OF THE INSTITUTION OF PUBLIC CONTROL: INTERNATIONAL AND NATIONAL EXPERIENCE

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## ABSTRACT

*The article is devoted to the analysis of the limits and the possibility of using international and foreign experience in organizing and functioning to optimize the institution of public control in Uzbekistan. The authors define the concept of public control in Uzbekistan. The results obtained can be used both in educational and scientific, and in practical activities, including in teaching and lawmaking.*

**KEY WORDS:** *international, foreign, public control, Uzbekistan, experience, organization, functioning, municipal, regional, public authority.*

## INTRODUCTION

The object of the research is legal relations arising in the process of organizing and functioning of the institution of public control at the international and national levels, which can be used to optimize this institution in Uzbekistan. The aim of the research is to study the international experience of organizing and functioning of the institution of public control in order to identify that part of it that can be used to optimize the organization and functioning of this institution of civil society in Uzbekistan. Research objectives are as follows:

- 1) to give a definition of public control in Uzbekistan;
- 2) to substantiate that the optimization of the institution of public control in Uzbekistan involves the analysis of international and foreign experience in the organization and functioning of this institution of civil society;
- 3) to substantiate changes and additions to the current legislation, which must be adopted on the basis of a study of the successful experience of

organizing and functioning of this institution of civil society.

## MATERIALS AND METHODS

The necessity of using international and foreign experience in the organization and functioning of the institution of public control in the process of optimizing this institution of civil society in Uzbekistan in the following areas:

- 1) in terms of formulating the concept of the institution of civil society control over public power;
- 2) in terms of its consolidation in regulatory legal acts;
- 3) to determine its basic principles, goals and objectives;
- 4) to fix the list of objects in respect of which control is carried out;
- 5) on the development and implementation of the basic forms and methods of this control;
- 6) on the institutionalization of the diversity of its subjects, as well as their powers.



A number of methods of scientific research were used in this article, in particular, historical, comparative, formal and logical analyses. This will allow not only to resolve modern problems arising in the organization and functioning of public control in Uzbekistan, but also to ensure its full development as a promising institution of civil society.

## RESULTS AND DISCUSSIONS

In the process of organizing and exercising public control in Uzbekistan, numerous problems arise that impede the effective functioning of this institution of civil society. To resolve these problems, it is necessary to use international and foreign experience in the formation and functioning of public control for a number of reasons. *First*, the democratic institutions of civil society control over public power abroad have a fairly long history, during which numerous successful forms and methods were developed and put into practice. *Secondly*, due to the fact that after the collapse of the USSR, when building the state and legal system in Uzbekistan, the foreign model of the formation and functioning of public power was taken as a basis, it seems quite logical to use the best foreign models of formation for organizing and exercising public control over it. Moreover, most of them have been reflected in numerous international legal acts, the basic norms and principles of which, in accordance with the Constitution of Uzbekistan, are recognized as an integral part of Uzbekistan's legal system. *Thirdly*, the globalization of the socio-political, state-legal and socio-economic development of national societies and states dictates the need for the development of national legal systems in accordance with the development trends of international law, which consolidates all new legal guarantees to ensure the participation of citizens of national states in the management of state affairs, the most important part of which are the institutions of civil society to control public power. *Fourthly*, globalization gave rise to numerous opportunities, which led to a new successful round in the development of institutions for the participation of society in the control of public power. This experience made it possible to: harmonize the relationship between society and the state apparatus; to strengthen national legislation; to consolidate additional legal guarantees at the interstate level for the organization and implementation of public control over public authority.

The name used in Uzbekistan for the institution of civil society control over public power - public control - is generally atypical for its

designation in most modern states. As a number of authors rightly point out, "translating "public control" into the language of modern Western political rhetoric means seeing that it denotes public control differently - through a set of keywords centered around "transparency" and "participation"[2]. These words have become a kind of mandatory incantation, especially after the release of Obama's famous Memorandum on Transparency. The authorities and the public now have to increase the degree of transparency and participation in one way or another. This is the most relevant direction in the development of Western democracy. Together, the "transparency" of the state and the "participation" of citizens today constitute what is "public control" in Western democracies" [2]. At the same time, the "transparency" of public authorities presupposes an increase in its openness and accountability to civil society, for example, in the European Union and the United States. Unlike public control in Uzbekistan, this means the obligation of the state and municipal authorities to take active steps for citizens to exercise their right to know, which acts as a kind of guarantee for the exercise of their rights to participate in the management of public affairs.

In the United States, in accordance with the preamble of the Open Government national action plan, public authorities should: "be more transparent at every level, for which purpose it is necessary to provide the most complete information on government activities in a timely manner and make it easily accessible to people; to involve more and more of its citizens in decision-making processes, because this makes the government more effective and responsible; to implement the highest standards of honesty, because those in power should serve the people, not themselves; expand access to technology, because in the current digital age, access to information is becoming open to all"[3].

In this regard, various concepts are used to denote the control of civil society institutions over public authority abroad, such as: public participation in the activities of public institutions [4]; control over the activities of public administrations [5]; activities of public organizations to force public authorities to improve the quality of services provided to the population (public services), as well as to increase professionalism [6]; civil initiatives [7]; popular law-making initiatives [8], etc. At the same time, this approach is supported by the presence in the West of a widely developed system of public organizations. As V.V. Grib rightly notes, "currently there are about 1.5 million public organizations in the United States, whose activities are in one way or another connected with the implementation of public control."



The development of the Internet and integration processes in the world, in particular, in Europe gave rise to numerous formulations of the interactive participation of citizens of national states in monitoring the openness and accountability of public authorities to civil society. In this regard, it seems that the name of the institution of civil society control over public power in Uzbekistan is “public control” (in this work previously justified the need to change it to “public (people’s) control”). It is supported by a set of real powers of representatives of civil society to control government and local government bodies, their officials and organizations exercising certain public powers. In this regard, the main solution to the problem seems not so much to correct the name of this institution of civil society, but to fill its content with specific powers of the subjects of public control in Uzbekistan, which would allow it to act as a real guarantee of the implementation of the constitutional and legal principles of democracy and participation of citizens.

## CONCLUSION

The use of successful foreign and international experience in legal regulation of this institution of civil society is also of great importance for optimizing the system of public control in Uzbekistan. Thus, in addition to Uzbekistan, the activities of numerous subjects of public control, for example, in a number of CIS countries, are more actively enriched in regulatory legal acts of ministries and departments. In addition, these subjects of public control are endowed not only with informational, advisory and other optional functions, but also with quite real, in particular supervisory, powers.

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## **HISTORICAL ROOTS AND EVOLUTION OF THE INSTITUTIONS OF STATE (PUBLIC) SERVICES IN THE WORLD**

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### **ABSTRACT**

*The purpose of this article is to analyze the current situation of public services in the world, develop guidelines for civil servants on the classification of public services, develop proposals for improving the procedure for the provision of public services as the next step in building the institution of public services, improving the quality of public services.*

**KEYWORDS:***nation, region, public service, public management, industrialization*

### **DISCUSSION**

The term “public services” has spread globally in the last three decades thanks to the wave of administrative reforms in the spirit of New Public Management (NPM) that swept around the world and set the tone for modern public administration in both developed and developing countries. Despite its prevalence and general use, the term “public services” has not yet acquired a unified scientific content and is very poorly regulated by law, although in the last decade there have been national and regional trends in the world aimed at filling this gap. Moreover, in different regions behind these trends are different driving forces, factors and conditions, which determines the heterogeneity of the content of emerging concepts, legal doctrines and institutions. For example, in Great Britain, which is a recognized leader in the development of public services, this institution was historically formed in response to the growing needs of society for centralized social and communal services under the influence of the processes of urbanization and industrialization, which were actively gaining momentum in the second half of the 19th century. Therefore, the initial meaning that was embedded in this institution was clearly communal in nature.

In the United States, public services were originally defined as basic public utilities. In the 19th

century, such services were provided by private companies that operated on the basis of public contracts with municipal authorities. In the early 20th century, many states began enacting laws that empowered municipalities to unilaterally regulate utility prices. Subsequently, this issue was transferred to the jurisdiction of the state authorities, where special regulatory bodies were created - public utilities commissions. Thus, the growing administrative state expanded its social functions, taking control of traditional and new public services.

The formation of the institution of public services in Germany, of course, is due to the general features of the formation of the German national statehood, which happened relatively late, only at the end of the 19th century. A characteristic feature of the German way can be considered the dominant idea of the rule of law (Rechtsstaat) in state building, which served as a conceptual platform for the development of all public institutions, including public services. Legalism in the approach to building public institutions was largely due to the de facto monopoly of lawyers in public administration, traces of which remain to this day. A good illustration of German legalism in the approach to public services is the very fact that it has a separate judicial jurisdiction for labor and social disputes.



For France, the term “public services” is, in principle, uncharacteristic. Here the institution of public services was formed under the name service public, which means public service for the benefit of society. The French concept of public service was built around the idea of a strong state, designed to ensure the realization of the ideals of society and the satisfaction of its needs. The purpose of the public service is to ensure the public good. The public good is difficult to define unequivocally, but without it, public services are unthinkable for the French. The French doctrine of public services has always attached great importance to equality, legality and fairness. In France, public service rather early became regulated by administrative law and was subject to control by the administrative justice, headed by the Council of State. The French approach to the organization of public services in science is called statist, i.e. built around the state. Note, however, that the statist approach to public services did not prevent the French from delegating the functions of providing such services to private enterprises on the basis of public contracts. It was believed that the duty of the municipality is to ensure the provision of public services to the population, but not necessarily to provide them independently.

It is known that at the end of the 19th century, numerous municipalities (commune) in France often practiced outsourcing of water and sanitation, entering into contracts with private or public contractors. At the beginning of the 20th century, the intensification of economic life led to a blurring of the boundaries between the public and the private: administrative bodies more and more often concluded economic contracts like private individuals, and non-governmental organizations were often involved in the implementation of public functions, acting like administrative bodies. In 1921, the court distinguished between the concepts of a public service of a commercial and industrial nature and a “traditional” public service, which came to be called an administrative public service, and social public services (education, health care, social security) belonged to the category of an administrative public service. We can say that the formation of an administrative state and the expansion of its functions to meet the socio-cultural needs of the population is a common factor that determined the formation of the institution of public services in Western countries in the second half of the 19th and first half of the 20th centuries. Further development of the institution of public services is due to the growth of state regulation, the rise of humanistic ideals (in the post-war period) and the formation of the so-called “welfare state”. This trend dominated throughout the

Western world and peaked in the 60s and 70s of last century. The ideology of the welfare state strengthened and expanded the initial social meaning of the institution of public services in the West. A common doctrinal feature of the development of the institution of public services during the formation and flourishing of the welfare state was the belief in the indisputable superiority of the model of public services centered around the state. The general belief was that professional civil servants organized in a unified system of public administration can handle the provision of public services in the best way. Accordingly, the focus was on planning, organizing, managing, coordinating, budgeting, personnel policy and control functions. The improvement of public administration was carried out mainly in terms of the consolidation of organizational structures and the uniform regulation of administrative practice through administrative procedures.

The economic crisis of the late 70s put an end to the expansion of state participation in life support and gave rise to a public administration reform in the spirit of the New Public Management (NPM), which included the reduction of the state apparatus, increasing its efficiency by transferring business management to the rails, and expanding the forms private sector participation in the provision of public services. From this moment, a new stage in the development of the institution of public services begins: the issues of effective organization and management, public standardization of the quality of public services and their privatization in various forms come to the fore. The new approach called into question all the fundamental postulates and principles of traditional public administration. Thus, supporters of the new doctrine argued that the state bureaucracy, despite all its might, does not always work well and has many significant shortcomings. The search for the optimal regulation of public administration is a delusion, since real practice is changeable and dynamic. In general, the provision of public services by the state is not the only possible way: the government can act through subsidies, regulation of markets and public contracts, and not necessarily act as a provider of public services.

The neutral bureaucracy in fact turns out to be deaf to the new needs of society. Accordingly, effective mechanisms for democratic accountability are needed. In reality, officials are far from the ideals of traditional public administration: they do not act in the interests of society, but more often in their own interests or in the interests of the department in which they serve. Finally, public administration tasks require the participation of professional managers: it is not enough just to follow instructions, it is



necessary for someone to take responsibility for the result.

Thus, at the end of the 70s of the last century, the ideology of the welfare state and its characteristic traditional model of public services are beginning to lose ground to the new market-oriented doctrine of NPM, which captures leadership not only in science, but also in politics, becoming the banner of the neoliberal political forces that came to power in most Western countries. Having won first in the leading Anglo-Saxon countries - Great Britain and the United States, NPM quickly spread in all developed capitalist countries, and then covered developing countries in Asia, Africa, Latin America, Central and Eastern Europe and, as a result, ideologically defined reforms in the post-Soviet space. International organizations such as UNDP, IMF, World Bank, WTO, ADB and others played a large role in the global dissemination of NPM, which actively recommended reforms in the spirit of NPM to developing countries. Large regional organizations - OECD, APEC, EU, which purposefully promoted and implemented NPM in their spheres of influence - also contributed to the victorious procession of NPM. International consulting firms, which governments of many developing countries have resorted to when developing national programs for the modernization of public administration, also contributed a lot to the introduction of NPM. Despite the variety of terms denoting new approaches to the reform of public administration, the essence of them was the same: transformation of the state apparatus according to models borrowed from the private sector in order to improve the efficiency and quality of public services. Common features of NPM reforms are criticism of the state bureaucracy, its immense size and managerial inefficiency, corruption and self-interest of officials, calls for privatization, the introduction of market principles and business style in public administration, focus on the quality of public services, consumer expectations, and an emphasis on performance and the efficiency of public administration. To a large extent, NPM is based on the presumption of the superiority of market mechanisms over government ones. This meant that governments should learn from private organizations for good governance and adopt their business strategies and technologies. It was believed that by imitating business, the state can achieve the efficiency inherent in the market in providing services. In fact, the entire NPM approach can be reduced to two concepts: market and management. While NPM continued its expansion into developing countries, in the Western countries, since the late 90s of the last century, there has been a gradual departure

from its main ideas. The fact is that the practical consequences of the NPM reforms caused more and more doubts that building the public sector on the model of the private sector is really capable of solving social problems and ensuring the expected quality of public services. Nearly every line of NPM reform has found itself with unforeseen difficulties or far less value than expected. One of the main complaints about NPM models of public administration was that they reduce the potential of the individual citizen in solving social problems. The marketized structures of public services created under the slogan of customer orientation turned out to be even more deaf to the needs of the population than their predecessors, the bureaucrats. But it has become more difficult to combat violations due to the complication of the very structure of the modernized public administration.

It turned out that an extensive network of semi-autonomous agencies working in a business approach gives a citizen less chances to protect his rights and interests than a centralized bureaucracy. The obsession with cutting costs has often led to savings in quality in vital matters such as flight safety or hospital sanitation. These and other problems of NPM determined the relevance of searching for new approaches to the organization of public administration and, in particular, the system of public services. Today, new trends are gaining strength in Western countries, which are gradually acquiring conceptual design. The main ones are the following:

- Reintegration;
- Reorganization based on the needs of the population;
- Electronization.

Reintegration is understood as organizational decisions aimed at overcoming the administrative fragmentation generated by NPM reforms. Reintegration in the UK is seen, for example, in the curtailment or revision of agency. Several agencies have been merged into departmental groups. In addition, a number of public services are being integrated: for example, employment services and unemployment benefits in the system of the Employment and Pensions Department or the Internal Revenue Service and Customs Service in the national tax agency.

Since the late 1990s, New Zealand has been undergoing a process of strategic reintegration of the public sector, restoring its values and principles. In the United States, after the terrorist attack on September 11, 2001, the Department of Homeland Security was created, which united into a single system of 22 federal agencies that were unable to coordinate their actions in time to prevent threats to



public safety. Reintegration also includes the return of public services to the state. This happened, for example, with the British company Railtrack, which was effectively nationalized after bankruptcy in 2000. At first, instead of Railtrack, a government-subordinate non-profit organization was established, and in 2004 it was officially transformed into a public agency accountable to the Department of Transport.

Reorganization based on the needs of the population implies the consolidation of public services and related services around a specific segment of the population, based on its needs. A good example is the Pension Service of the UK Department of Employment and Pensions, which has consolidated all social benefits for the elderly into one structure. Another well-known example of needs-based reorganization and reintegration at the same time is the Single Window Centers and Internet portals of integrated public services. One of the first one-stop shops was Australia's Centrelink, which consolidated the public services provided by 20 agencies. Electronization has changed the face of modern public administration so significantly that it gave rise to talk about a new stage in the history of public administration - the era of electronic government. Today, most public services in developed countries are being converted into electronic format, as well as many intra-organizational processes of public administration. The creation of integrated databases of state bodies, in combination with electronic identification of users, transforms modern public administration into a network structure in which the distance between the consumer and the public service provider is reduced to a minimum, and the process of service delivery is accelerated as much as possible. Electronization, according to a number of scientists, is not only an independent trend in the development of public administration, but also an essential prerequisite for all other trends, which without ICT capabilities would form much more slowly. Speaking about modern trends in the development of public services, it is necessary to focus on the concept of "public value", which becomes central to the modern understanding of this institution. The idea of "public value" is gaining more and more popularity, despite the lack of conceptual certainty.

The doctrinal content of this concept is at the stage of formation. At the same time, some countries have already taken decisive steps towards the legal institutionalization of "public value". For example, in the UK in 2012 the Public Services Act was adopted, which stipulates the obligation of public authorities to consider the consequences for economic, social

and environmental well-being when entering into public contracts with public service providers. Thus, at the level of legal procedures, the institution of public value received official recognition. Scientists propose to understand public value as a complex of preferences of society as a whole, which depends not only on the direct results of state policy, but also on the level of public confidence in the authorities, citizens' confidence in honesty and fairness of government. At the same time, the collective nature of such preferences is noted, which is not reducible to the sum of individual benefits. Public value is revealed in the course of a public political process, and not only in the form of elections, but also in the course of public consultations and in other forms of public participation in government decision-making. Public value, according to scientists, lies at the heart of the new paradigm of public administration, which is conducive to cooperation, not competition. Particular attention should be paid to the fact that "public value" expresses collective, or public preferences, as opposed to the individualized consumer approach of NPM. Simply put, this is what society as a whole considers valuable and right, and not individual consumers of services. Thus, based on the new doctrine, public services are services provided to society as a whole, and not to individual consumers. The practical conclusion for the institution of public services is that in the coming decades it will develop in the logic of network cooperation and cooperation with the widespread use of information and communication technologies. Thus, it can be stated that the institution of public services on a global scale is at the stage of transition from new public management (NPM) to digital network governance.

Taking into account the special role of the Russian experience in the formation of the national concept of public services, let us dwell on it separately. In the Russian Federation, the institution of public services began to actively develop in the early 2000s in connection with the administrative reform. The Concept of Administrative Reform focused on improving the quality of public services and their accessibility to the population. At that time, there was no category of public or state services in the Russian science of administrative law. Therefore, the administrative reform was built in the ideology borrowed from the Western doctrine of NPM reforms. The peculiarity of the Russian approach consisted in the total legal standardization of public services through the publication of hundreds and thousands of administrative regulations. This is due to the fact that in the Russian Federation, unlike the Western countries, there was a huge gap in



administrative and procedural regulation, which was supposed to be filled in this way. In our opinion, this was a serious mistake caused by a misunderstanding of the conceptual differences between the institutions of administrative procedures and public (state) services.

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## PHILOSOPHICAL-COGNITIVE ANALYSIS OF ABUL KASIM MAHMUD ZAMAKHSHARI'S WORKS

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### ABSTRACT

*This article is written for explaining Abul Kasim Mahmud Zamakhshari's career on the science of commentary and didactic value of his work on language and grammar called "Mukaddimet-ul Edeb". His commentary is called "Kessaf" which is considered to be the best commentary written in his era. His other work called "Mukaddimet-ul Edeb" (Introduction to Etiquette) has a great philosophical, pedagogical, anthropological, and didactical value.*

**KEY WORDS:** *Al- Zamakhshari, Tafsir (Commentary on the Quran), Mufessir, (Commentator on the Quran), Al-Kassaf, Introduction to Etiquette*

### DISCUSSION

Abul Kasim Mahmud Zamakhshari was born in 1075, in Zamahshar, a district of Khorezm. Although his father, who was a neighborhood imam, deemed it appropriate for him to be a tailor, but he wanted to study, and his father brought him to Khorezm and delivered him to a madrasah. Al-Zamakhshari was first educated with the help of his father. Then he studied at a madrasah in Khorezm. He came to Bukhara to further his education. Because Bukhara was a center of science since the Samanid era, where world-renowned representatives of science gathered. After graduating from Bukhara, he served in the service of Khorezmshahs for several years. At that time, the Khorezmshah state was under the rule of the Seljuks. The Seljuk ruler Malikshah and his minister Nizam-ul Mulk were known to the world as patrons of science and culture. He established Sunni madrasahs in several cities. These madrasahs were named after Nizami. Zamakhshari, who did not have enough prestige in Khorezm, went to Nizam-ul Mulk. However, Zamakhshari was not valued here either because he belonged to the Mu'tazilite sect.

Zamakhshari's Muqaddimat ul-adab (Introduction to Etiquette) is also of great linguistic

significance. This work is dedicated to Khorezmshah Alovuddavla Atsiz and consists of 5 parts:

1. Noun
2. Verb
3. Conjunctions
4. Noun changes
5. Verb changes

This dictionary covers all the words and phrases of the Arabic language used at that time. The meanings and etymology of these words are widely interpreted. In addition to Persian, Muqaddimat ul-Adab has been translated into Chigatay (Uzbek), Mongolian and Turkish. Several manuscripts of this work are kept at the Institute of Oriental Studies of the Academy of Sciences of the Republic of Uzbekistan.

In this work, Zamakhshari sought to cover all the words and phrases used in the Arabic language at that time, and paid great attention to their etymology. Zamakhshari's work also deals with stylistics and poetry; brief, clear, and subtle explanations are given to the means of artistic imagery. For example, there is a difference between the art of satire and the art of humor. He collected and interpreted about 3,500 Arabic proverbs (Al-Mustaqso fil-amsal - "Mature proverbs"). Kitab al-



jibal walamkina val-miyah (The Book of Mountains, Lands, and Waters) contains valuable information about geographical locations, mountains, and seas. Zamakhshari's work was also popular among Western scholars and was published in 1856 by the Dutch Arab scholar Salverda de Grave, with extensive research.

Asos al-balagat (Fundamentals of Oratory) is a work of lexicography. It speaks of the eloquence and perfection of the Arabic language. In order to express an idea in beautiful words and phrases, to use vocabulary skillfully, one must be well versed in the sciences of eloquence and maturity. It also required the correct use of the word, the correct pronunciation and spelling. This play provides an in-depth analysis of the main parts of the literature, phraseological expressions, and ways to apply them in practice. Al-Faiq fi Gharib al-Hadith (A Precious Book on Gharib Hadiths) is about words and phrases that are difficult to understand in a hadith. "Atvaq uz-zahab fil-mavo'iz val-khutab" ("Golden branches in the narration of sermons") is a collection of exhortation articles. Rabi 'ul-abrar wa nusuh ul-ahyar (The Spring of Virtues and the Statement of the Good) is a collection of stories, anecdotes, and conversations about literature, history, and other sciences. One of the most important sources is Zamakhshari's Al-Qustos fil-aruz, which discusses the weight of aruz. "Maqomat" - consists of 50 maqoms, and the rhyming prose is an important work that contains delicate examples of the saj style.

Zamakhshari's wise words, Nawabig ul-Kalim (Delicate Phrases); "An-nasouh us-sig'ar val bavolig 'ul-kibor" in the didactic spirit, as well as lyrical and philosophical poems, verses, poems of honor, poetry.

Al-Kashshof. There are about 100 Al-Kashshof manuscripts and more than 20 commentaries and margins on the manuscript in various manuscript treasures around the world. Students of the famous Al-Azhar dorilfununi in Cairo will study the Qur'an based on this work by Zamakhshari, among other interpretations. Manuscripts of his works are preserved in Germany, Egypt, Turkey, Iran, France and Russia.

Zamakhshari's works have been published in German, French and other languages. His contemporaries Abusamad Muhammad Samani, Yaqut Hamawi, Jamoliddin Qiftiy praised the work of Zamakhshari.

Some aspects of Zamakhshari's work were studied in the East (A.Z. Validi, Muhammad Kozimbek), by Uzbek scientists (A. Rustamov, U. Tursunov, U. Uvatov, Z. Islamov, M. Hakimjanov, etc.), Russian scientists (Krachkovsky, Borovkov,

etc.), by western scientists (Brokkelman, Zayonchkovsky, etc.). One of the streets in Tashkent, a school and a mosque are named after Zamakhshari.

According to sources, the scientist wrote many of his works in Mecca, where he was recognized as a great scholar.

In particular, in honor of his contribution to the development of world science, Az-Zamakhshari was awarded with the titles, as "Jarullah", ie "Neighbor of Allah", "Ustad ud-dunya" - "Master of the whole world", "Fakhru Khvarezm" - "Honor of Khorezm".

Az-Zamakhshari was a prolific scholar and wrote about fifty works in various fields of science. Twenty-five of these have survived. Al-Kashshof, a linguistic work, which includes commentaries on the Qur'an in 1134 was very popular in the Islamic world. Al-Kashshof has been recognized by orientologists and Arab scholars as the most perfect of the Qur'anic commentaries. That is why this work is still used as a textbook in different countries of the world.

It is necessary to seek the reason for living of an individual, that is, the essence of his life, in his philosophy. Why did Zamakhshari turn to study science while there were so many fields and sectors of activity, and why did he prefer interpretation among all the scientific branches? The answer to this question is hidden in Zamakhshari's preferences regarding ontological, epistemological, axiological, that is, philosophy of existence knowledge and values. The factors leading Zamakhshari to learning, knowledge and science despite the demands of his father, who is an imam, he leant on the following ideas:

- Learning science is obligatory for every Muslim, male or female.
- Science should take the lost property of the believer wherever he finds it.
- Even if the science is in China, go get it.
- Scholars are the successors of the prophets.
- Scholar's sleep is better than the worship of the monument.
- Studying one hour of science is better than 40 years of worship.

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# NON-TRADITIONAL FORMS OF UPBRINGING CHILDREN IN THE PRESCHOOL EDUCATION SYSTEM

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## ABSTRACT

*In each society the purpose of formation of the person is defined and according to it there should be a pedagogical system. If the goal changes, the existing system will change. The national training program's main goal is making the educators feel responsible to society, the state and the family. Thus, the National Program is a state order in the field of education and upbringing and is an integral part of the ideology.*

**KEY WORDS:** *teaching methods, preschool education, school preparation*

## DISCUSSION

Only the social (state) order clearly defines the general goals and objectives of education or guarantees the conditions of existence of the pedagogical system for higher (secondary, secondary special, vocational) education. Pedagogical technology is a systematic method of identifying, creating and applying all means of teaching and learning, taking into account technical means, human potential and their interaction in order to optimize forms of education. Pedagogical technology is the process of intensive formation of personality traits predetermined in them as a product of sequential exposure and reflection. Pedagogical technology is a project of a pedagogical system that a teacher can implement in practice. Three essence of the definition of pedagogical technology given by academician V.P. Bepalko includes the formation of features of social experience in children, realization of "technologicality" of educational process and achievement of the guaranteed result. The concept of educational technology is broader than the concept of teaching methods. The method of education is a method of interaction between educators and children, aimed at solving complex problems of the educational process. The method of teaching represents a system of scientifically based methods, rules and techniques of teaching a particular direction. The essence of pedagogical technology is reflected in the preliminary design of the educational

process, taking into account the didactic purpose, the achievement of the required level of mastery and its implementation. The central problem of pedagogical technology is to ensure the achievement of educational goals through the development of the child's personality.

The rapid increase of information in the developing stage of science and technology and the limited time to use them in the teaching process, as well as the requirements for the perfect preparation of young people for life require the introduction of modern pedagogical technologies in education.

Motivation is an internal driving force, emotion that creates a person's behavior, the educator tries to control it, and to organize the educational process, the educator collects impressive evidence from the experience of the studied activities and learns to overcome embarrassing situations based on knowledge of the basics of the direction. The strong or weak motives that are formed in children depend on the skill of the educator. The implementation of pedagogical technology based on the creation of learning factors and the achievement of its goals depends on the pedagogical skills of the educator, communication culture, fluency of speech, the impact of communicative skills on children, the level of mastery of pedagogical techniques and their effective use. This activity, in turn, should be based on new communicative technology. In this process, the educator participates in a variety of activities. One



similar form of pedagogical activity is the interaction of the educator with the pupils based on communication. The content and methods of preschool education are organized in an environment where the formation of the child's personality, the process of recognition of him as an independent person. Preschool is a period when a child develops motivation, self-expression, construction, self-implementation, desire to do something, aspiration. During this period, the foundation is laid for the development of the child as a person.

Forms of teaching vary according to the quantitative composition of students, the nature of the interaction between students and teachers (level of activity and independence), methods of activity (by what methods and techniques), as well as their position in the whole learning process. This position is determined by the nature of the educational tasks that are addressed in the organization of the educational process in one form or another.

The following set of features are specific to the sessions, which are an organizational form of teaching.

In the classroom, children learn the skills of a particular section of education provided for in the Kindergarten Curriculum.

Classes are held with a permanent composition of children of a certain age group.

Classes are organized and conducted by adults. They define the content and purpose of lessons, choose methods and techniques, direct and organize children's cognitive activity to the acquisition of knowledge, skills and abilities.

In the lessons, the content of the program is mastered by all children, so they are the main form of teaching. Other forms of teaching are used as a means of enriching children's experience and preparation for mastering the content of lessons, or as a separate modification of the process of acquiring knowledge. The causal features bring the lessons closer to the school-to-school form of teaching as a form of teaching, thus ensuring consistency in teaching. The main differences between the lesson and the practice are in the structure and methods used to conduct the teaching work at the level of load intensity. Classes are conducted in the following sections of education: acquaintance with the environment and the development of children's speech, the development of electronic mathematical concepts, visual activities and construction, physical education, music education.

The training program includes:

- a certain amount of knowledge about the properties and qualities of objects, their changes, relationships, modes of action, etc., their initial mastery, expansion,

consolidation, generalization and systematization.

- The amount of practical skills and competencies applied in productive activities.
- The amount of skills and competencies of learning activities, their initial formation or improvement, hand exercises.
- Tasks of developing mental and cognitive process qualities.
- Forming children's attitudes to the knowledge, events and happenings in a particular lesson, establishing relationships between peers to relate to their activities, as well as mastering the rules and norms of behavior in the context of training sessions.

Thus, the content of the lessons is aimed at solving both educational and pedagogical tasks in their unity and interaction.

The amount of learning content in each session will not be too large. It is determined by taking into account the memory and abilities of children of different age groups.

For example, when observing new objects during observation, children in the younger age group are able to remember 2-3 bright signs, children in the middle age group are able to remember 3-4 signs, and children in the older age group are able to remember 5-6 signs.

The structure of classes in kindergartens does not include testing the acquisition of knowledge, skills and abilities. This work is carried out in the analysis of the results of children's activities in the process of monitoring the activities of children in the classroom, as well as in everyday life and in the study of children's achievements using various scientific methods.

Classes are open to all children. This requires special attention to its organization and leadership of children's activities. First of all, hygienic conditions must be created to ensure the overall high working capacity of children. Classes should be held in a clean, well-ventilated room equipped with children's furniture.

For each specific session, the organized situation should be appropriate to the nature of the learning activity in which it is to take place.

Children should be placed in the room in a way that allows them to function very well: children should be able to sit at a table facing the tutor or in a semicircle, sitting or standing around combined tables.

The use of visual and practical methods in the teaching of preschool children is associated with the use of a variety of visual materials, such as objects, drawings. One is used in children's collaborative activities, the others are used as



handouts. The organization of the training involves the rational placement of the material, the consistency of its use, the method of recommendation is determined by the nature of work with it. The educator will be able to teach throughout the day using a variety of forms of organizing children. During the trip there will be a general observation of natural phenomena with children. From time to time in the afternoon, the educator reads to the children the literary works they know, which they love. In all cases, the educational work carried out with children in everyday life using different methods is inextricably linked with its main form - training. This solves two tasks: the pre-accumulation of imagination or movement experience to be used in later lessons, or the development of skills and competencies, and the consolidation of ideas acquired in the lessons.

For this purpose, in the daily pedagogical process, a group form of teaching is used, which covers a small number of children. It uses more auto-didactic games.

Recognition of each child as an individual in the educational process, the formation of knowledge, skills and abilities based on his age, interests and needs is a requirement of today. "We must not forget that the foundation of our future is laid in educational institutions, in other words, the future of our people depends on how our children are educated and brought up today. To do this, every parent, teacher and coach must first of all see the person in the image of each child, - said the First President of the Republic of Uzbekistan Islam Karimov.[1]

Based on this simple requirement, we must accept that the main goal and task of education should be to bring up our children as full-fledged people with independent and broad-minded abilities. This requires a balanced approach to education and upbringing.[1] The content and methods of preschool education are organized in an environment where the formation of the child's personality, the process of recognition of him as an independent person. Preschool is a period when a child develops motivation, self-expression, construction, self-implementation, desire to do something, aspiration. During this period, the foundation is laid for the development of the child as a person. It is in the preschool period that the universal qualities that help a child to be successful in all future activities and in life in general are formed.

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# THE MANIFESTATION OF THE PURSUIT OF KNOWLEDGE AND THE TEACHING OF MATHEMATICS IN THE VIEWS OF SULEIMAN BOKIRGONIY

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It is important to analyze the works of our thinker ancestors, to study the pedagogical value of their life, creativity and heritage. In the past, we have witnessed that our great scholars have taught a high level of spirituality, morality, expressed their views on the Motherland, the future of the people, a prosperous life, honest work, scientific progress, rational attitude to human labor and the environment. The views of various ideological currents on the above-mentioned issues still serve as a source of spiritual education for students and young people today. Such geniuses as al-Khorazmi, al-Beruni, Imam Bukhari, Ahmad Yassavi, Suleiman Baqirgani, Alisher Navoi can be included in such eternal scholars. It is clear from the research that they have made an invaluable contribution to the science of pedagogy today with their spiritual and moral views. In order to convey the moral and educational views of great geniuses to the minds of today's youth, it is necessary to thoroughly study the stages of development of spirituality and enlightenment, the meaningful life experiences of the founders and members of various sects and their legacy. This will require special attention to one important aspect of the issue. That is, the events of socio-historical, political and cultural life had the character of their time. It is not expedient to impose on them the realities of the XXI century, the requirements of development, and to try to copy them and apply them to today's life. An approach to the study of their chronological order from the point of view of the historical principle serves to make pedagogical research objective and effective.

Sufism is also based on the doctrine of man's ascension on the basis of knowledge and enlightenment. According to mystical teachings, the main goal of man is love and purity. The love of the

universe, of being, is interpreted as the love of God. Such love, on the other hand, requires a person to be free only from the needs of a high level of purity and lust.

This situation is one of the spiritual roots that shaped the worldview of Suleiman Bokirgonyi. Because one of its important and exemplary features is the ability to be critical of oneself, intolerance. According to Suleiman Bokirgonyi, deceit and concealment of sins is treason. With these thoughts, Suleiman Bokirgonyi promotes honesty, integrity, self-assertion. This is a call to refrain from sinning, committing illegal acts, and gaining the hatred of members of society. Suleiman Bokirgonyi says that enlightenment is to know Allah, to see Allah. He explains the supreme love as the love of Allah. He sees the path of the sect as the path of educating the perfect man, the path to paradise. According to mystical teachings, the main goal of man is love and purity. The love of the universe, of being, is interpreted as the love of Allah. Such love, on the other hand, requires man to be free only from the needs of a high level of purity and lust. This situation is one of the spiritual roots that shaped the worldview of Suleiman Bokirgonyi. Because one of its important and exemplary features is the ability to be critical of oneself, intolerance. According to Suleiman Bokirgonyi, deceit, concealment of sins, is treason. With these thoughts, Suleiman Bokirgonyi promotes honesty, integrity, self-assertion. It is well known that mysticism is a doctrine that teaches purity and perfection of the Spirit. Many thoughts in mysticism are about lust and morality, Spirit and Love. Bokirgonyi's pedagogical and moral views on divine love are vividly reflected in the following lines:



Менинг жоним сенинг ишқинг билодур,  
Таним ожиз, вале жоним ўлодур.  
Бу ишқ гар бўлмаса мен неткай эрдим,  
Қамут оҳим меним ишқим қилодур...[1]

**Meaning in English**

My soul is in love with you,  
My body is weak, my soul is dying.  
What would I do if it weren't for love,  
My love sighs ...

The content of the poems of Suleiman Bokirgoniy consists of the interpretation of the ideas of divine love, teachings and mysticism:

Ошиқ бўлуб, дарёсига чўмсам, ботсам,  
Мосуваллоҳ пардасини кечиб ўтсам,  
Ўздин кечиб муҳаббатда сизиб оқсам,  
Софий бўлуб, ҳазрат тобо борғим келур.[2]

**Meaning in English:**

If I fall in love and dive into the river,  
When I cross the curtain of Mosul,  
When I fall in love with you,  
As a Sufi, I want to go to Hazrat Taba. [2]

His wisdom reflected some aspects of the life and work of the prophets and famous sheikhs. Especially noteworthy are the verses of the poet in the tariff of his teacher Ahmad Yassavi:

Субҳон Изимни вирди шайхим Аҳмад  
Яссавий,  
Арслон бобом еткурди шайхим Аҳмад  
Яссавий.

**Meaning in English:**

My Sheikh Ahmad Yassavi gave me Subhan's wish,  
My grandfather Arslan Sheikh led to me to Ahmad  
Yassavi,.

According to Suleiman Bokirgoniy, man should not care about the world, he should be able to save himself from its swamp, so that he can achieve his true goal. The names of many other great representatives, such as Charkhi, Hoja Ahror Wali, U wais Qarani, Ibrahim Adham, Shibli, Sarri Saqati, Maruf Karhi, Junayd Baghdadi, Boyazid Bistomi, Yusuf Hamadoni and his disciples Ahmad Yassavi, Abdulkhaliq Gijduvani, Khoja Ali Romitani, Shamsiddin Porq, Athanuddin Kuld, Bahovuddin Muhammad and their services in history are now well known to almost all readers of the book. After all, each of them in his time carried out propaganda work on the development of personal spirituality. They set an example to the masses with their way of life. In particular, in the teachings of Abu Hamid al-Ghazali,

the ideas of peaceful coexistence with members of society, interpersonal respect and courtesy are paramount. When he speaks of someone who has entered the path of the sect, he shows that he has to go a long and arduous way in order to attain good Islamic morality and reach the truth. This path he will take to the stages of sharia, sect, enlightenment and truth. The tax must be on each of them in order to reach the Truth. He who has attained the fourth, that is, the last stage of truth, attains the Truth. He who reaches the truth will be honored. In fact, the concept of stages is not just a simple and woolly imagination of a Sufi. Even the best philosopher, Islamic scholar, or orientalist of our time may not be able to interpret them fully and perfectly.

Thus, in the modern world, where the theoretical foundations of the idea of national independence have become the source of our people's worldview, life and creativity, it is necessary to apply the teachings of Suleiman Bokirgoniy to study the historical and traditional ways of forming a multifaceted and complex personality. After all, in a world where the spirituality of the individual is changing rapidly, we need to understand and preserve ourselves, to feel who we are, what a great ancestral heritage, thousands of years of history, unique spiritual roots, to preserve this wealth should serve to pass on to future generations.

Secondly, during the dictatorial regime, it was not possible to fully and extensively study the historical and enlightenment heritage of our people, to use the heritage of the great religious and mystical representatives of spiritual education. Therefore, the need for a scientific and theoretical study of the philosophical views of Suleiman Bokirgoniy to enrich the human psyche and the spiritual world is of great importance.

The aspects of the philosophical heritage of Suleiman Bokirgoniy in terms of spiritual education, their role and significance in the stages of spiritual and enlightenment development have not yet been specifically studied. However, the teachings of Suleiman Bokirgoniy play an important role in educating the ideology of our independent people, in general, the ideological and political consciousness of our youth.

Our scholars, who have studied the basics of spiritual education on a large fundamental level, emphasize the role of the individual as a stage in the development of spirituality or as a path to enlightenment, striving for knowledge, teaching obedience (i.e. contentment), and showing kindness [3]. The views of Suleiman Bokirgoniy correspond to the upbringing of the pursuit of knowledge and the teaching of mathematics. It is obvious that the main task of poets and scientists is to accumulate knowledge and pass it on to young people. This is



due to the fact that in the X-XII centuries the directions of social education in Movarounnahr were determined by the social, spiritual, political way of life. Suleiman Bokirgoniy's philosophical views, valuable ideas on spiritual education were formed under the influence of such a socio-political, spiritual environment.

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## CLASSIFICATION OF TEACHING METHODS IN TEACHING MATHEMATICS

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### ABSTRACT

*The word mathematics is derived from an ancient Greek word meaning “to know the sciences”. The object of study of mathematical science consists of the spatial forms of things existing in matter and the quantitative relations between them. The purpose of teaching mathematics is determined by its role in the development of society and the formation of the individual.*

**KEY WORDS:** *classification, method, methodology, elementary mathematics*

### DISCUSSION

From history, aspects of mathematics have been formed: the creation and application of the tools necessary for practical-human productive activity, and the acquisition of mathematical methods aimed at understanding and changing the world associated with spiritual-human thinking. Mathematics develops in students the will, concentration, ability and activity, imagination, moral qualities of the person (determined, goal-oriented, creative, independent, responsible, hardworking, disciplined and critical thinking) and the ability to defend their views and beliefs on the basis of evidence. In the process of studying mathematics, methods and techniques of human thinking include induction and deduction, generalization and determination, analysis and synthesis, abstraction, analogy, classification and systematization. In the study of mathematics, students acquire the skills to express their thoughts and ideas clearly and completely, concisely and meaningfully, to understand, comprehend and perform mathematical notation. Mathematical thinking develops the ability to draw logical conclusions about objects and how to construct them, to form opinions, to justify and prove, and on this basis logical thinking develops. It also nurtures the ability to formulate algorithmic thinking, work on a particular algorithm, and build new ones. In the process of solving examples and problems from mathematics, creative and practical aspects of thinking develop. Aesthetic education is given to students by teaching them to think clearly, concisely,

fluently in mathematical proofs, to imagine geometric shapes, to see beauty on the basis of their symmetry, strict laws.

In order to deal with possible cognitive problems in quality education, it was necessary to develop a number of points that allow the use of graphical settings using theorems within the set conditions. While these developments make it possible to obtain fully expected results, the institutional situation poses serious challenges to tuning the schedule, yet the distribution of such a product has proven effective in in-depth negotiations between teacher and students to be effective. After giving an example, we would like to return to the general questions discussed at the end of this article after trying to show how to cite its content from a system perspective. In order to achieve the goal of the approach, the characteristics of the educational content are taken into account, in which the content of education is preserved and then the necessary developments are developed, which are not included in the text of knowledge. This makes it possible to deny the complexity of the didactic aspect. However, it can also be seen that the application of this production technology is not an easy task at present, but it is also gaining interest through theoretical research questions. Artigue and Perrin (1991) considered these challenges in civil engineering in groups consisting mainly of disabled students. Conducting work in such classrooms served as an activity that showed students a dramatic character change through a magnifying glass. Such changes



stem from the gaps between engineering beliefs and the teacher's understanding of the role of the teacher in education: the teacher's desire to build a continuous transition of small steps without providing anything to students who cannot yet see mistakes; allows easy and simple management of the contract, everything is focused on the student being able to demonstrate their external skills, but if the student fails, the teacher is not asked too many questions. Teachers think that we have adapted it in the implementation of the proposed engineering ideas, but in reality there is a change in the whole system. These difficulties are indirectly related to the theoretical shortcomings that underlie engineering. For a very long time, the theoretical basis did not see the teacher and the student as actors, and therefore modeling remains at the center of the student learning relationship. Finally, in addition to these questions, the engineering builders explained their main problem in writing: What level of description should be applied? Which epistemology to rely on? How to achieve brevity and clarity? How to narrow down the product presentation? The problems that arise as a result of deviating from the chosen path in voluntary management, multiply here, and it must be admitted that there is no clear answer to their solution.

The work done in solving the problem certainly has its place, creating a set of functional products that fit into the framework of the theory, in order to better understand the issues related to the preparation of educational content. However, like any other approach, it does not completely solve these difficult problems. At the present time, the science of mathematics is conventionally divided into two: 1) elementary mathematics, 2) higher mathematics.[1] Elementary mathematics is also a science with an independent content, based on elementary data from various branches of higher mathematics, namely theoretical arithmetic, number theory, higher algebra, mathematical analysis, and the logical course of geometry. Higher mathematics, on the other hand, applies this by finding mathematical laws that fully and deeply reflect the spatial forms of the real world and the quantitative relationships between them. The science of elementary mathematics forms the basis of the school mathematics course. The purpose of the school mathematics course is to convey to students through a system of mathematical knowledge in a certain way (methodology), taking into account their psychological characteristics. (The word methodology is a Greek word meaning "way").

Mathematical methodology is one of the main branches of pedagogy and didactics, and at the level of development of our society is an independent discipline that studies the laws of teaching mathematics, teaching in accordance with the objectives of education. Mathematical methodology

answers the following three questions related to the learning process:

1. Why should we study mathematics?
2. What should we learn from mathematics?
3. How to study mathematics?

The concept of the methodology of mathematics was first described in the work of the Swiss pedagogue-mathematician G. Pestalozzi "Visual study of numbers." Professors V.M. Kolyagin, J. Ikramov, R.S. Cherkasov, N. Gaybullaev, T. Tulaganov and other methodist scientists were engaged in the methodology of school mathematics, which is taught on the basis of the current program. By education, we mean conscious and goal-oriented cognitive activity between teacher and students. Any education has two goals:

1) To provide students with the necessary knowledge system to be learned on the basis of the program.

2) To form students' logical thinking skills by imparting mathematical knowledge.

In order to achieve these two goals in the educational process, the teacher must explain each concept taught on the basis of psychological, pedagogical and didactic laws. This results in a psychological process in the minds of students called cognition. We know from the course of philosophy that the process of cognition "means from living observation to abstract thinking and from it to practice." [2] It seems that the process of knowing depends on thinking. Thinking is the active reflection of the objective world in the human mind. From a psychological point of view, the process of cognition is of two types:

1) Emotional cognition (intuition, perception, and imagination).

2) Logical knowledge (concept, judgment and conclusion).

A form of thinking that reflects the basic properties of things in a mathematical object is called a mathematical concept. Each mathematical concept is characterized by its two aspects, namely content and volume. The content of a concept is said to be the basic set of properties that represent that concept. The volume of a concept is the set of all the objects that fall into that concept. Introduction of mathematical concepts is carried out on the basis of :

1) Exact - inductive method;

2) Abstract - deductive method.

Confirmation or denial of a mathematical idea formed on the basis of mathematical judgments. There are three types of mathematical judgment:

1. Unity judgment.

2. Private judgment.

3. General judgment.

In the process of teaching mathematics, all three types of the above sentences are inextricably



linked. In other words, a special judgment is formed as a result of a single judgment, and a general judgment is formed as a result of a private judgment. Mathematical reasoning is also a form of logical thinking. The third final judgment, made up of two firm judgments, is called a conclusion. The main types of mathematical judgment in a mathematics course are: axiom (gr. "A sentence with prestige"); postulate (gr. "demand-determining"); theorem (gr. "look out"). Didactic principles in mathematics lessons.

1. The principle of science.
2. The principle of demonstration.
3. The principle of consciousness.
4. The principle of activity.
5. The principle of careful mastering.
6. The principle of systemicity.

Mathematical teaching methods. In modern didactics, including the subject of methods of teaching mathematics, the problems of the method of teaching are generally solved, which is characterized by the following two aspects:

- a) Teaching (teacher's activity);
- b) Learning (conscious cognitive activity of students).

Teaching and learning methods are inextricably linked to each other and make the teaching process happen. Teaching methods in a mathematics course can be classified as follows.

1. Research methods (observation, experiment, comparison, analysis and synthesis, generalization, abstraction and classification);
2. Teaching methods (heuristic method, programmed learning method, problem-based learning method, lecture and conversation methods).
3. Inference methods (induction, deduction and analogy).

We know that the object of study of the science of mathematics consists of the spatial forms of things in matter and the quantitative relations between them. In the process of determining the quantitative relationship between these forms, mathematicians use scientific methods of research as a tool.

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## METHODOLOGY FOR THE DEVELOPMENT OF INTELLECTUAL CULTURE IN STUDENTS

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### ABSTRACT

*Higher education institutions are social institutions that train specialists who can meet the requirements of the country's future. They are a social institution formed on the basis of the country's perspective requirements for personnel. Its main aspects are the accumulation of mature, qualified scientific and pedagogical staff, the provision of a complex of teaching, research, humanitarian education and upbringing processes, the search for demand and supply between professors and students, the desire to learn, scientific creativity, the decision-making spirit of cooperation is based on the acquisition of professional skills.*

**KEYWORDS:** *social activity, cognitive activity, programs, intelligence, experience*

### DISCUSSION

In higher education, the student is educated and brought up in the above-mentioned environment, is formed as a person. This process is carried out on the basis of modern pedagogical technologies in the context of the unprecedented growth of demand for intellectual potential today. According to this technology, the main burden of acquiring knowledge and specialization potential falls on the student. Therefore, the first direction of increasing the social activity of students is to increase their interest in learning, and in it to increase the student's "I", the level of responsibility.

The student's cognitive activity is reflected in the audience's interest in the knowledge to be acquired independently, in the invention, in his interest in science among other groups of students, in the organization of this activity. Of course, in the above activities, it is important for professors to understand students, to stimulate their interest in science and the profession. Therefore, the planned and effective implementation of the independent educational workload set out in the curriculum today depends on the social activity of students.

The importance of scientific and creative competition among students is great in increasing their interest in learning. This competition intensifies in the course process, in scientific circle meetings, in scientific-theoretical, scientific-practical meetings,

and in examinations and Olympiads of various degrees and orientations, and this gives students an incentive to research. In this regard, effective work is being done in higher education institutions. But they need to be more modern and demanding, more creative. This competition should go beyond the state, and the country's youth should demonstrate their scientific potential in international audiences as a matter of national pride. In order to increase the social activity of students, it is important to involve them more widely in scientific research. Typically, students' research is done through academic circles. Higher education institutions have a good positive experience in this area. But today it is important to link this area with grants, to announce special grants for student research, to create special programs that students must perform in the contracts of departments with organizations, to form research programs led by students themselves.

In our view, this process should begin with the student's first lessons in the first year. He must determine his future scientific activity with the help of the department of economics in the first year, create a scientific program for the student years. As a result, its relations with organizations and research institutions are formed. The involvement of a student in research work according to his / her interest is completely different from his / her involvement in scientific research. The scientific creative activity of



students, which is sometimes shaped for a practical report, is far from yielding positive results.

The integration of the education system and industry plays an important role in increasing the social activity of students. In this integration, on the one hand, radical reforms in education, on the other hand, modernization processes in production place demands on each other, as a result of which the portfolio of these requirements, on the one hand, further improve the education system, increase its efficiency, targets, on the other hand, is the basis for transforming the production process into a production space for personnel with modern intellectual potential.

The Presidential Decree "On the State Program for the implementation of the Action Strategy for the five priority areas of development of the Republic of Uzbekistan in 2017-2021" provides for the effectiveness of scientific and innovative activities of scientific organizations in the concept of science development until 2030, introduction of a national rating system aimed at evaluation, development of social partnership between the state and scientific organizations through the development of a system of self-government in science and the implementation of projects under it, the organization's own spending on technological innovations in research and development until 2025. It is planned to increase the share of expenditures on technological innovations by 3.5 times and 9 times by 2030 [1].

A new paradigm of education is replacing education with a lifelong approach to education. In the early 20th century, R. Slotter's idea of the need to form a "culture of research", to think about the future, to form a qualitatively new collective ability for long-term forecasting is an interesting idea [2]. Among the tasks that will ensure the future of mankind in solving this problem, the task of forming a social consciousness based on understanding the meaning of social history, the main content, laws, directions and obligations of the cultural process comes to the fore. Because without the formation of this type of reflection of human history, the content and logic of its intellectual culture cannot be explained. It should be noted here that intellectuals are an intellectually and socially active part of the population and are intellectually and socially interconnected. Scientists, researchers, inventors, builders, businessmen are distinguished from others by the fact that in their work they have not only professional, but also social and ethical dimensions.

An intellectual is a thinker, for whom creative thinking is closely linked to a specific civic position and moral responsibility. As thinking divides labor into mental and physical forms, it takes on the character of an independent activity with its own purpose, aim, and practical manifestations.

Intelligence is essentially independent and secretive. Because it is so complex to be organized with the help of external means, man makes extensive use of intelligence as an internal means of activity. Contemplative events always end with the consequences of cognition, such as judgment, understanding, or inference. As a rule, these results of mental activity are recorded through language, so its management in the process of this activity is excluded. Simply put, if a person does not express an opinion about what he is thinking, it is impossible to influence him in order to motivate him to action [3].

At the current level of education and science, the owners of intellectual culture remain representatives of the elite. But this is a temporary phenomenon. Because the synthesis of elite, intellectual and folk culture, irrigated with a healthy national idea, can serve as a guarantor of the normal functioning of society. In order to rise to intellectual heights, it is necessary to rely not only on intellect, but also on the possibilities of independent creative thinking. Because, with the help of independent creative thinking, man imagines the universe as a whole, he has the opportunity to realize that the qualitative changes that take place in it are the result of interdependence, interaction.

A person's level of intelligence is largely determined by his or her independent thinking, work activities, and lifestyle. Therefore, the level of intelligence of a person depends not only on his physical and spiritual-moral qualities, but also on his lifestyle, material well-being. Therefore, I.B. Siddikov said, "In the new era of development, it is an objective necessity to pay attention to the development of the intellectual culture of the individual and society, especially youth. One of the problems of modernization of market economy relations is the interaction of youth with the level of intellectual culture and the development of society, socio-philosophical study of the characteristics of interaction to eliminate shortcomings in the process of educating professionals as highly educated intellectuals who can apply modern science will help" [4]. Man becomes more and more deeply and clearly discovering himself by raising his level of intelligence. That is, a person's "level of intelligence" is distinguished primarily by the fact that it is aimed at understanding his own identity. That is why the great enlightened Jadid intellectual Ismail Gaspirali said: "Europe is an old man with a lot of experience. We have respect for his great age. We learn from experience. But we will not repeat their mistakes. We will not run like a child, what we see in Europe. Like conscious people, "What is this? What will be the result? Consistent with conscience and justice? We have weighed it on the scales of reason." [5] A.Avloni, one of the leaders of our modern enlighteners, as an intellectual of his time, worked



hard to bring up young people as honest, resourceful, courageous, generous and patriotic. Enlighteners praises him, saying, "Education is for us a matter of life or death, salvation or destruction, happiness or disaster." [6] For the writer, who pointed out that the mind develops in the shadow of knowledge and experience, the formation of the ability to think in children, the education of thought is an extremely necessary and sacred task.

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## **SHERMUHAMMAD MUNIS'S VIEWS ON KNOWLEDGE OF MAN AND THE WORLD**

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### **ABSTRACT**

*This article discusses the gnoseological views of Munis Khorezmi, a mature poet and historian, enlightened scholar of his time, who lived and worked in Khorezm in the XVIII-XIX centuries. On the basis of his poetry, this article analyzes the poet's ideas about knowing the world and man, his philosophical thoughts on the understanding of being. In particular, the article reflects Munis's views on the role of enlightenment in mental and emotional cognition, knowledge of being.*

*This scientific article presents the views of the thinker on the world around man, on the priority of emotional cognition in knowing the inner world of man.*

*Some research and literature on Munis's views on knowing the world have also been analyzed. Poems on this topic are quoted and conclusions are drawn on this basis.*

*Methods such as comparative analysis, generalization, dialectics, synergetics, inductance, analogy, logic, objectivity were used to draw these conclusions.*

**KEYWORDS:** *gnoseology, cognition, being, word, writing, communication, universe, man, mind, intuition, emotion, intuitive, pantheism, psyche, enlightenment, theology, nature, beauty, metaphor.*

### **INTRODUCTION**

The theory of knowledge (gnoseology), that is, the knowledge of the whole being and the universe, the understanding of identity, has been one of the most ancient and eternal problems of philosophy. It is known from the history of philosophy that there are many theories about knowing the world we live in and the world around us, humanity as a part of it. Various scientific, religious and philosophical views have been put forward by Eastern and Western thinkers on this subject, the essence of which lies in the reasons for the creation of being and the question of self-awareness.

The problem of knowledge, like many Central Asian thinkers, is of special importance in the work of the Khorezm enlightened poet Munis Khorezmi (1778-1829).

Even though the main themes of his works were love, beauty, separation, as well as socio-political, enlightenment and moral issues, it can be

seen that he also focused on issues of cognition in his works of romantic, philosophical content and nature.

In the poet's views on cognition, the period in which he lived, the spiritual life and the enlightened environment, religious and mystical ideas prevailed.

### **LITERATURE REVIEW**

Munis Khorezmi's work and his socio-philosophical views were researched by some scholars. Uzbek scholars such as Ayomi (Y.Yusupov), N.Jumaev, S.Hasanov, T.Akhmedov, M.Akhmedova and a Russian researcher E.Bertels, who analyzed Munis's poetry and views, studied his socio-moral and enlightenment ideas.

However, Munis's views on the knowledge of existence have been almost unexplored, scientifically and philosophically analyzed. Only some scholars, including the literary scholar N. Jumaev in his book "Munis Ghazaliyoti" (Tashkent. "Literature and Art", 1991. p. 160) partially analyzed the human mind and



emotions in Munis's love poems, his views on the human heart and inner experiences.

This source only emphasizes that spirit and emotion prevail in knowing the inner world and mood of a beautiful girl. The poet's views on the knowledge of the whole being and humanity are not covered, nor are they philosophically analyzed gneseologically.

In this research work, we used N. Jumaev's book "Munis Ghazaliyoti" to analyze the poet's views on the role of mind and emotion in the process of cognition. In addition, in order to provide a broad and philosophical analysis of Munis's gneseology, manuscripts written by him were studied. In particular, "Munis ul-ushshaq" by Munis. (Manuscripts Fund of the Academy of Sciences of the Republic of Uzbekistan. Inv.940.), Munis's collection of poems "Selection" collected and prepared for publication by the researcher Y. Yusupov (Tashkent "Literature and Art" edition, 1980. 366 p.) and the thinker's work "Savodi ta'lim" (Prepared by Nusratullo Atoullou oglu Jumakhoja. Tashkent. Teacher, 1997. - 48 p.) were widely used.

## METHODS AND APPROACHES

The methods of logic, comparative analysis, synergetics, generalization, analogy, induction, and universality were used in the coverage of this topic, using Munis's historical manuscript sources and poems.

In the coverage of the article, mainly the manuscripts of the thinker, reflecting the romantic, socio-enlightenment thoughts, ghazals about nature were studied philosophically. Also, a comparative analysis of the scientific research of N. Jumaev, who studied the artistic skills of the poet and conducted research on his socio-philosophical views, will try to comprehensively shed light on Munis' attitude to the world and man, the human mind and emotions.

The study of Munis's epistemology requires further research in this area, in particular, the boundaries of the universe and its position in cognition, the methodology of cognition and the role of human senses in cognition, the relationship between man and the universe, causation in cognition. This provides an opportunity to get acquainted with the views and opinions of thinkers who have lived in the Central Asian region in the past, which are not yet known to the general public.

## RESULTS AND DISCUSSION

These sources provide valuable information about the poet's cognitive poems, as well as the methods and means of knowing existence. In these literatures, Munis's gneseological views are described in his socio-enlightenment, love, and nature poems

through various imagery and word art. In particular, the poet skillfully described the methods and means of cognition in artistic images.

The novelty of this research work is the study of Munis's as-yet-unexplored gneseology, the scientific and philosophical analysis of his views on cognition, and its coverage to the general public.

In Munis's philosophy, the idea of knowing the world has a special place, as do other socio-philosophical views. Munis, as a thoughtful poet, pays special attention to the creative function of the human word in knowing the world. A poet is an artist of words. That is why he sees the word as the jewel of the human heart. According to the poet, the word is a divine blessing given to man by Allah. At the same time, the means of communication between people is the weapon of knowing the world.

It is well known that in philosophy the question of the unity of language and thought is regarded as a topical question of knowing the world. After all, language is a means of communication between people, a social phenomenon, a means for members of society to express ideas and exchange ideas. [1] In this sense, language, in addition to being a means of communication, performs the functions of knowing the world, recording, storing, and transmitting accumulated knowledge and experiences from generation to generation.

The expressive form of language is the word. In this sense, Munis, as a poet, paid special attention to the word. The word is a jewel in the human heart, which makes a person happy, gives beauty to the earth, tells the story of the essence of the world, but it is "troubled in the world", "black happiness", "chorus", and the people of the word are "humble". He writes of the worthlessness of the word in his time:

*Ҳоҳ назму хоҳ наср ўлсун фазилат аҳлидек,  
Хорлиғ домониға чекмиш оёқ якбора сўз.*

*Сўз чу мундоқ хор эса, сўз аҳли мундоқ  
хоксор,*

*Ваҳ, не тил бирла деолғай Муниси бечора  
сўз. [2]*

**English variant:**

*Whether it is poetry or prose,*

*The single word set foot on the trap of humiliation.*

*If the word is so ruined, the poets are so ruined,*

*Wow, what language can poor Munis speak?*

Since the word is a product of human thought, the poet believes that with knowledge it is possible to know the mysteries of the world, to reach the essence of things and events. If you want glory, be humble, do not be lazy, move forward with courage in the face of problems, do not stop knowing, then the world will shine, says the poet:



*Дониш била мен топиб мулки маонийға  
даст,*

*Буғз қилурлар аён аҳли жаҳолат манға.  
Бўлмоқ улуг истасане ажз ила бўл хоксор,  
Мундин эрур жилвагоҳ авжи жалолат манға.  
[3]*

**English variant:**

*With knowledge, I found a hand in the property of  
meaning,*

*Obvious people are ignorant to me.*

*If you want to be great, be humble,*

*If you do, the world will shine on you*

So, in the poet's view, thanks to the word, humanity knows the world, understands himself. In this regard, Munis also appreciates the importance of writing, which is a written form of the word:

*Ҳар сўзки, кўнгулдин ўлди мавжуд,  
Хат бўлмасе, бўлғай эрди нобуд.  
Қуръонки, эрур худо каломи,  
Хат ичра аён бўлур тамоми. [4]*

**English variant:**

*Every word that comes from the heart,*

*If there was no letter, it would perish.*

*The word of Allah, the Qur'an,*

*Is also finished in written form.*

It can be said that Munis means that writing, which is a written form of communication and speech, is an important tool not only to know the world around us today, but also to gain knowledge about the past and expand our worldview.

While Munis emphasizes the importance of the word in writing and the role of writing, which is its written form, there is no doubt that the senses and the mind are also important. Because we definitely need an eye to write and read, and we definitely need an intellect to know, master, analyze and think about the letter we are reading and writing.

While the poet appreciates the role of the word in cognition, he emphasizes the importance of using the word art correctly. That is, he thought it necessary to use all the semantic signs of the word when writing something or speaking on a subject.

Munis pays special attention to the place of communication between people in knowing the world. Cognition occurs in the process of communication between object and subject. Good and bad events are known only in communication, in the golden fire, as if iron was tested by touching a stone. People are also known only in communication. The truth or falsity of knowledge is checked in social practice. That is why practice is the criterion of truth. The good or bad of a person is known in social communication. The poet writes about this:

*Нахли тарабим ўйла курубдурки, баҳори  
Не барг чекар бош, на қилур реша мулоқот.  
Мунис, гуҳари фикру каломимға сочарлар,  
То қилди манға дилбари андиша мулоқот. [5]*

**English version:**

*My tree is so dry*

*Neither the leaf nods nor communicates*

*Munis, until the beautiful girl communicates with  
you anxiously*

*Thoughts cast pearls on your words*

Munis's philosophy of cognition is closely linked to his enlightened views. According to the poet, the task of man is to acquire knowledge at a young age, to mature at the expense of knowing the mysteries of the world. Because the knowledge acquired in youth is an example of writing inscribed on stone. The poet likens youth to a bow and arrow to old age. It is a good quality to take a step towards excellence in youth:

*Мунис, талаб эт камол – эрурсен чу йиғит,*

*Ким яхшидур этсе фазл учун қайғу йиғит.*

*Ўқ қилғон ишин ё қила билмас ҳарғиз,*

*Қарилар ила баробар ўлғайму йиғит. [6]*

**English version:**

*Munis, when you are young, try to be mature*

*Whichever guy strives for good qualities, he is good*

*The bow can't always do what the arrow does*

*Can a young man be equal to an old man?*

When we think of Munis's views on cognition, we see in his gneseology both a pantheistic (philosophical doctrine that identifies Allah with the universe - G.S.) and a rationalist (philosophical doctrine of cognition based on reason - G.S.) approach. That is, he emphasizes the importance of both divine and emotional perceptions in knowing the universe. In particular, Munis, like Alisher Navoi, followed the advice of the Naqshbandi tarika and followed the path of "metaphor" in knowing the world. The purpose of the metaphor is truth. In the metaphorical way of knowing the world, great emphasis is placed on emotional cognition. In addition, mysticism emphasizes intuitive (unseen, divine) knowledge. In Munis's work, too, we observe a tendency to divine knowledge, a state of retreat from mental knowledge:

*Эй соқий, олиб кел менға бир соғари нўш,*

*То сипқорибон они қилай тарки хуш,*

*Ким ақл бериб ҳамиша кўнглумға халал,*

*Қўймас ани мажнун киби айларға хуруш. [7]*

**English variant:**

*O drunkard, bring me a cup of wine,*

*I want to drink it and be fainted,*

*The mind always disturbs me,*

*He won't let me drink it like Majnun.*

However, Munis is not limited to intuitive cognition, but also appreciates the role of the mind in



cognition. The heart of the poet is always in dispute with the wise, and the people of the time do not appreciate them. Munis tends to know the world intelligently:

*Сен дур сочибон сўзунгдин андоқки садаф,  
Дахл аҳли қошида йўқ анга қадри хазаф,  
Доно ҳаргиз қилмади нодон била баҳс,  
Хомуш бўлу ҳасудга бўлма тараф.* [8]

**English variant:**

Your words are like pearls in your mouth  
There is nothing more precious in the world than that  
The wise did not argue with the foolish,  
If you are sad, be, but do not be jealous

It is known from the history of thought that in the matter of cognition there is a constant struggle between different opposing ideas about the mind and the senses, and such ideas. Sometimes the former wins, sometimes the latter wins. We often see this in the study and knowledge of a person's inner world, in the expression of his inner world and feelings.

One of the main themes of the poet's epistemology we are studying is also the relationship of mind and emotion. In other words, Munis sometimes praises the mind when he knows, and sometimes he praises the feeling:

*Ақл ила ишқ ихтилофидин кўнгул бўлди  
хароб,*

*Мулк вайрон бўлғуси тушса ароға ихтилоф.*  
[9]

**English variant:**

The conflict between reason and love made the heart  
devastating,

The property is to be destroyed, if there is a dispute.

From such poems it is possible to feel that there are some internal contradictions in the epistemological views of the poet. Munis writes that he hesitated between emotional cognition and mental cognition:

*Гаҳ ақл ўлдине, гаҳи жунунлиғ қилдине,  
Фикри шарафу хаёли дунлиғ қилдине,  
Ҳар ишга қўл урдине забунлиғ қилдине,  
Мунис, охир буқаламунлиғ қилдине.* [10]

**English variant:**

Sometimes you are smart, sometimes you are crazy,  
You have made the world glorious,  
You've done everything wrong,  
Munis, you finally did the chameleon.

If we analyze Munis' views on mind and emotion in poetry, he says that the human psyche and mind are common, but in the struggle between them, psyche prevails:

*Балойи ишқ юкин руҳ тортадур, не ақл,  
Ки пил қуввати ҳаргиз ўқузда топилмас.* [11]

**English variant:**

The burden of love is the burden of the soul, what a  
mind,

The power of the elephant is never found in the ox.

So, in the opinion of the poet, as the literary scholar N. Jumaev said, "the human psyche is stronger than the mind. Only a spiritually active, struggling, optimistic person can endure the pain of love." [12] Because mental weakness, insecurity, and emotional sluggishness make any strong-willed person weak as well. This is especially true of the pain of love, mental anguish, and fear.

Munis says that the superiority of the mind over the mind can be seen not only in overcoming the various sufferings and worries that befall a person, but also in knowing the inner world, heart and soul of people:

*Мани мажнунга ишқинг дарсидин бу навъ  
фаҳм ўлди,  
Жунун бир рамздур, билмаслар они оқилу  
зийрак.* [13]

**English variant:**

From the lesson of love, I learnt from Majnun,  
It is a symbol of craziness, and those who do  
not know it are wise and intelligent.

The poet is saying here that the pain and condition of the lover can be known not by the mind, but by the feelings and the heart. This means that the inner world of man can be understood only with our senses and heart.

Although Munis paid great attention to emotional cognition, his goal was in mental cognition. Every word I say, adorned with the pearl of meaning, wants those who read it to be glad:

*Ёраб, тилима каломи хуш жорий қил,  
Маъни гуҳарини қилқим исори қил,  
Ҳар сўзки саҳифа узра таҳрир этсам,  
Кўрган киши кўнглини гирифтори қил.*  
[14]

**English version:**

Introduce a kind word to my tongue,  
Make the meaning of pearl a present,  
If I edit every word on the page,  
Make the heart of the one who sees it.

In general, Munis, in his views on cognition, chose the path of metaphor in mysticism, and did not limit himself to it, but went from metaphor to truth. Although Munis had a pantheistic understanding of being, he had an emotional and rational approach to cognition. While appreciating the role of the word in cognition, he tried to combine mental cognition with emotional cognition in his work.

## CONCLUSION

From Munis's views on the knowledge of the universe and man, the following conclusions can be drawn.

**First**, Munis emphasizes the place and role of the word in his views on cognition, i.e., he



considered language to be an important tool in human knowledge and worldview. Humanity not only acquires knowledge through language and speech, but also serves as a key factor in the development of consciousness and knowledge, and in the transmission and dissemination of thought to others.

**Second**, the thinker believes that humanity knows itself and the external world not only because of the existence of the spoken word, but also through the use of writing, which is its written form. Because with the help of writing we gain knowledge about the past, the knowledge is passed on to the next generation.

**Third**, the thinker emphasizes the role of emotional cognition by stating the mental and emotional modes of cognition. In the poet's view, emotional knowledge is superior to mental knowledge, and it helps in knowing the truth. In particular, it is possible to know the inner world, inner experiences and feelings of a person emotionally (intuitively). The mind knew it was incapable of knowing.

**Fourth**, the poet does not deny the role of the mind and senses in knowing the world, but rather believes that we receive primary knowledge through our senses, and that the concepts and knowledge acquired develop human thinking through the mind. Although he did not emphasize it in his works, it is not surprising that the poet praised the role of human senses such as sight, hearing, smell, and feeling in his poems on beauty, elegance, floral fragrance, and natural landscapes. Because it is possible to see that the poet enjoyed the beauty of the world, was inspired by it, from his poems, which expressed his inner feelings, experiences, impressions about being and nature. So it is important to first understand that Munis shows that the human senses are the most basic means of knowing the material world.

**Fifth**, the enlightened scholar says that knowledge of the universe and humanity is possible not only through the human intellect and senses, but first and foremost through the study, education, reading and learning, in short, through enlightenment. Because without knowing how to read and write, sages and teachers believed that nothing could be achieved without teaching and knowledge. Although his enlightening poems promote the development of the country and people to live happily in society, reading, studying, being a professional, in fact, at its core is the issue of knowledge. That is, to understand the being, the world around us, to understand humanity and identity, to learn the secrets of a good and happy life.

**Sixth**, Munis, like other mystical scholars, emphasizes that intuitive, that is, divine knowledge is possible.

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## ATTITUDES OF UZBEK INTELLECTUALS TO THE ISSUES OF LANGUAGE AND LITERATURE IN THE EARLY TWENTIETH CENTURY

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### ANNOTATION

Language serves as a hallmark of the potential level and the culture of the individual and society. Legal admiration of the Uzbek language as the state language 30 years ago was a truly great and historic event. The enlightened writer Abdullah Avloni wrote, "Language and literature is the mirror life of every nation in the world. Losing the national language is equal to losing the spirit of the nation" and these wise sayings beautifully prove that the future of the country is preserved in language. Indeed, it is inevitable that a nation deprived of its language will not have a spiritual homeland. The face of the nation, the future of the country is reflected in the language and respect for it.

The article highlights the attention paid to our native language nowadays, and the fact that the issue of language and culture has long been one of the most topical issues. It is enclosed how the Uzbek language survived during the stages of history, and what are the efforts of the Jadids in the process.

**KEYWORDS:** *language, culture, nation, jadid, "Chigatay gurungi", national language, education, dialect, spirituality, sophistication, delicacy.*

### DISCUSSION

The issue of language, literature and culture has long been one of the most topical issues. Because language determines the character, manners, spirituality, culture of each nation, as well as its place as a nation. As Navoi said, "Attention to the language means attention to the people." This expresses that all of us must pay attention to our native language, respect it, and pass our delicate language on to the next generation with all its beauty.

The development of the nation's language and literature is one of the main factors determining our spirituality. If we look at the past, in particular, the creative activity of the representatives of the Jadid movement, which was considered a separate social phenomenon in the early twentieth century, we can see a harmony with the consistent policy pursued in the spiritual sphere in the republic today. One hundred years ago, nation, homeland, language, literature were on the agenda as a matter of life and death. It should be noted, therefore, that the Jadids,

considering this, did not deny the study of foreign languages, but also knew more than 10 languages, compiling several dictionaries in this field, and fought for advocating its purity and development as defenders of the national language and literature.

Language and literature serve as a hallmark of the potential level and culture of the individual and society. Legal admiration of the Uzbek language as the state language 30 years ago was a truly great and historic event. The enlightened writer Abdullah Avloni wrote, "Language and literature is the mirror life of every nation in the world. Losing the national language is equal to losing the spirit of the nation" and these wise sayings beautifully prove that the future of the country is preserved in language. Indeed, it is inevitable that a nation deprived of its language will not have a spiritual homeland. The face of the nation, the future of the country is reflected in the language and respect for it.

Decree of the President of the Republic of Uzbekistan No. PF-4997 of May 13, 2016 "On the



establishment of the Tashkent State University of Uzbek Language and Literature named after Alisher Navoi"[1], Resolution of October 4, 2019 on the celebration of the 30th anniversary of the Uzbek language, the Decree "On measures to radically increase the prestige and status of the Uzbek language as the state language"[2] and the tasks set in the concept of development of the Uzbek language and improvement of language policy in 2020-2030 paved the way for the development of the state language. Today, the creation of explanatory and orthographic dictionaries, dictionaries under different names for general secondary school students to show the richness of the Uzbek language and the full enjoyment of it by the next generation is a bright example of respect for our language.

The Uzbek language has survived with great difficulty on the stage of history. Lots of people sacrificed for this language's survival. The Jadid movement of the early twentieth century has a special place in this process.

When you read the works of poets and writers who lived and worked in the first quarter of the twentieth century, it is clear that they were written in a completely different literary language - a language and style of complex sentences, filled with Arabic and Persian words. The great merit of writers like Abdullah Qadiri and Cholpon is that they shaped and polished our modern literary language. Munavvar Qori also took part in the same process and contributed to the brightening of our language.

It is known that at the beginning of the XX century the influence of Persian, Arabic, Ottoman Turkish, Tatar languages on the Uzbek language and its style was more than necessary. This was reflected in the language of works of art, journalistic articles, and newspapers in general. This naturally made it difficult to understand any literary-artistic text, weakening their influence.

Progressive intellectuals have made serious efforts to get rid of this negative situation. Cholpon, in his article "Development of our language", wrote with regret about such a flaw in the language of the newspaper "Bukhara Akhbori": "But our newspaper (Bukhara Akhbori) has one great mistake that is always noticeable, and it is necessary to mention it with kindness. The flaw we want to point out is the lack of language, the lack of dialect, to be honest, the mistake of ignoring language. It is known that the newspaper, which has the headline "adabiy jaridai turkiya", (literary turkish journal), is published in Uzbek. The official language of the Bukhara government is also Uzbek. For a country like Bukhara, which has been overwhelmed by Persian-Iranian influence and has lost its language, the language is of great importance to most of the people there. However, in our newspaper "Akhbor"

this aspect is not paid attention or can not be paid. Here are some examples of its articles and reports published in semi-Tatar and semi-Uzbek dialects ..." [3]

Fitrat, a great representative of Uzbek literature, science and culture, also paid great attention to language issues. At the end of 1918, the Chigatay Gurugi was established. Fitrat was one of its leaders and active members. There were good reasons for this movement: Ottoman language and Ottoman literature were taught in schools instead of the mother tongue, and the status of the Uzbek language began to decline. According to Fitrat, "Chigatay Gurungi" fought against Pan-Turkistists and Jadids under the slogans of Uzbek nationalism: Uzbek language, Uzbek literature.

In the article "Our language" he is seen as an ardent promoter and defender of the Uzbek language. Noting that it is possible to make 98 words from a single "bil" (to know) stem, and that the vocabulary of the Turkic language is greater than that of the Persian and Arabic languages, he said: "If we look at the books on morphology in one of the Arabic, Persian, Russian, German, French languages, we see that a number of rules are written to make a word, and then four or five words are listed as exceptional words in addition to this rule. There is no such situation in Turkish words. Is it known about the richness and completeness of our language? Now I move the word to the unhappiness of Turkish. The Turkish language, with its richness and completeness, could not escape unhappiness. Turkish is the most unfortunate language in the world". He points out that the language was suppressed during the Arab and Persian rule, and that it did not develop freely even during the Soviet era [4].

In 1918, according to the task of the Turkestan Communist Party, Fitrat (in collaboration with Shokirjon Rahimi and Qayum Ramazan) created the first textbook in the native language (an article in the newspaper entitled "The first native language course" was published in the newspaper "Ishtirokiyun" on May 1, 1918). Later, the scientist perfected his work in this field and published "Grammar of the Uzbek language". This textbook, approved by the Ministry of Education of Uzbekistan, was published five times during 1925-30.

In 1919, in his article "Our Language", Fitrat wrote about the state of the Uzbek language at that time, saying: "Turkish is unhappy. It has been oppressed for a thousand years. However, it is not over. It's endless, it's lived, it's living. Because it is rich. It lived in Turkish. It lives, but can it save itself from Arabic and Persian or not? When I brought the word here, I pressed my finger on the core of the wound"[4].



Elbek also worked in the "Chigatay Gurungi" circle, founded by Fitrat, with the aim of rescuing the people from illiteracy and enlightenment, reforming the alphabet and orthography, developing strict rules of the Uzbek language, the development of the Uzbek literary language. He first published his poems and articles in the press under the pseudonym "Chigatay Gurungi", and in 1919, starting from his poem "Oksuz", he began to use the pseudonym Elbek, chosen by his teacher Fitrat. We know that many of our past ancestors chose nicknames from Arabic and Persian words. The members of Chigatay Gurungi, who fought for the purity of the language, abandoned this tradition and began to choose nicknames from pure Turkish words. For example, Fitrat, who has a high level of knowledge and talent, chose nicknames for the members of the group based on the names of our ancestors who were famous for their bravery and heroism, such as Botu, Oktam, Elkhan, Elchi, Chigatay, Oguz, Oktay, Eltuzar, Jigoy, Yildirim.

In the 1920s and 1930s, Uzbek intellectuals had very important responsibilities. Therefore, they did not limit themselves to a narrow range, but carried out their creative activities in a wide range, served as much as they could for the development and promotion of Uzbek culture.

Opinions about language vary, but the truth is that language is extremely sacred and revered. It is an incomparable bond that shapes man, leads him to progress, expresses the blessings of his mind, and opens the gates of the flower of thought. Therefore, preserving it today and passing it on to future generations requires a great responsibility from each of us. As our President Sh. Mirziyoyev said in his speech at the ceremony marking the 30th anniversary of the Uzbek language's status as a state language: "We must start this noble movement from ourselves, our families and communities, show respect for our native language, traditions and values, and show our love for the Motherland in practice." [5].

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## **FREEDOM OF THOUGHT AND UPBRINGING A PERSON WITH A MORAL CULTURE**

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### **ABSTRACT**

*This article argues that the upbringing of a spiritually mature and physically healthy generation is one of the main principles of our national ideology, that moral culture is focused on certain values as one of the necessary means of spiritual and practical understanding of the world.*

**KEY WORDS:** *Spiritual heritage, vigilance, freedom of thought, culture of thinking, discussion and analysis, dialogue, debate, intuitive.*

### **DISCUSSION**

It is difficult to carry out reforms at a high pace and successfully without adapting the minds of citizens to the demands of independence and the challenges of today's information technology, which is rapidly entering all spheres of life and the principles of globalization. Only in a person who is able to think freely and independently, non-standard, ideological immunity against ignorance, bigotry, all kinds of destructive ideas will emerge faster. Only such a thinker acquires patriotism, humanity, strong faith and social maturity. The laws, legal and regulatory documents adopted in our country, our achievements are bringing us closer to our main goal, which is to make our country one of the most developed democracies in the world. "One of the decisive factors in achieving such lofty goals," said the first President Islam Karimov, "is undoubtedly the changes in the minds and worldviews of the people of our country, its attitude to life and work, its growing political and legal culture." [1] It is known that the National Training Program and the Law on Education provide that the new generation has a free, creative and independent thinking, free from social fears and national restrictions, politically and socially active, inquisitive and resourceful, unlike the generation that grew up under colonial rule.

These historical documents pay special attention to the issue of freedom of thought of our citizens. Naturally, this is not in vain, it is inextricably linked with the individual's worldview.

Freedom of thought is an integral part and foundation of human freedom. "As a result, freedom of thought is the spiritual basis, the intellectual condition, of any freedom (freedom of conscience, political, legal, economic freedom, freedom of thought in general, etc.)." [2] It is well known that a person whose thinking is dependent or limited by someone cannot fully comprehend both his behavior and his individual condition and needs, as well as the social changes taking place around him.

As long as there is a limitation in thinking, the thinking person will not be able to properly analyze the nature of the event and situation he is witnessing, will not be able to make a fair and just decision about it, and will find it difficult to be critical of self-reported opinions. As a result, the assumptions and ideas put forward by someone seem to him to be correct and fair in all respects. From these observations, it is clear that the concept of thinking dependence is also directly related to the level of human knowledge.

The weakness of freedom of thought thus leads to blind following of others, weakness of will, hesitation, making decisions without self-confidence. In the media or on television interviews with many young people who have been exposed to various extremist gangs, one word is often repeated: "I don't know," "I don't understand," "I'm lost." Unfortunately, the thinker cannot objectively assess the terrible danger underlying a foreign idea or material interest that initially fascinated a person, he



does not feel the distortion in the guise of that idea, but instead prefers to take risks.

From this it is clear that freedom of thought is formed, first of all, in the family environment, and begins with the responsibility of an individual to think independently and to evaluate events fairly. It is also necessary to dwell on the culture of thinking in the individual. A person with a developed culture of thinking is a person who has a certain level of knowledge, that is, a person who knows, has learned, or is at least aware of the information about the thing or event being discussed and analyzed. Secondly, he is the one who can analyze this information correctly. If these two traits are not present, it indicates that the culture of thinking is flawed. Usually, a person with little knowledge finds it difficult to objectively evaluate the point made by the interlocutor in a conversation, debate, or discussion, hesitates, doubts the accuracy of the arguments presented by the interlocutor, but cannot reject them reasonably. Even if he refuses intuitively, relying on a sudden thought that comes to mind. Naturally, the outcome of such a risk is not always positive.

Hence, the culture of thinking lacks knowledge itself. "If knowledge becomes more of a passive erudition, a set of information, it will not become a culture of thinking if it lacks the potential to create something new by analyzing, drawing independent conclusions and creating new ideas." [2]

At the same time, the aspects of freedom of thought are inextricably linked with the moral culture of the individual. Moral culture, as one of the necessary means of spiritual and practical understanding of the world, substantiates them, focusing on certain values, covering the norms and causes of activity, specific forms of human relations. "Ethical culture is essentially reflected in the socio-economic, political and spiritual development of a society. The main goal of moral culture is to lead a person to the truth, to bring him up as a perfect person. At the same time, moral culture comes into direct contact with social life." [3]

Moral consciousness, which is an important factor in moral culture, in turn allows us to understand not only how to behave in a given situation, but also how to perform the task required by the situation. Moral culture should be viewed first and foremost as a product of upbringing and self-discipline. After all, a morally cultured person does not lose himself from the impact of various social environments and emergencies, realizes his role and social essence, and draws his own conclusions. Consequently, an individual's moral culture should be understood not as a manifestation of some rigid factor, but as a process that is constantly rising and enriching, and sometimes even declining. Examples from history can be cited in this regard.

A person with a moral culture is not indifferent to the history, spiritual heritage and current social development of his people, closely connects his life and activities with the development and prospects of the Motherland, does not imagine himself outside the nation, country and socio-historical life. One of the peculiarities of moral culture is its modernity, that is, the fact that the achievements of each period are reflected in the moral life of the individual. Moral values, which have been shaped over the centuries, also form the basis of moral culture.

Our people have the notions of politeness, thoughtfulness. Conversations were conducted in strict adherence to high cultural and moral standards, as has often been noted in historical sources. Obscene habits, such as rudeness, conventionality, interrupting the speaker, inappropriate bite, unauthorized speech, loud speech, and the use of rude expressions, were simply considered obscene, uneducated, and reckless. The reason we take a special approach to these issues is that freedom of thought cannot be a social problem in isolation. It is also a problem of moral culture of a scientific and philosophical nature.

Consequently, free thinking is always a concept consistent with high spiritual and moral qualities. Hence, freedom of thought is a will towards perfection, which meets the criteria of perfection. Raising a spiritually mature and physically healthy generation is one of the main principles of our national ideology. That is why the moral upbringing of children should become a daily task of each of us.

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# A STUDY ON CUSTOMER SATISFACTION TOWARDS DELL LAPTOP WITH SPECIAL REFERENCE TO TIRUPUR DISTRICT

[DrNGPASC 2020-21 COM86]

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## ABSTRACT

Dell computer was founded by Michael Dell in 1984. Dell computer is the one which was used by the customers all around the world. It was available in all the stores. The more and most of the laptops work on similar operating systems. The Dell company should be stable with all of the devices. Brand awareness and preferences of the customers should be aware by the company. Dell also focused on advertisement and consumer pattern of Dell consumers. Dell computer produced the first computer design called-the “Turbo PC”, and in 1987 Dell corporation began expanding globally. In 1990, Dell sold its products indirectly through warehouse clubs. Dell declared that it build a new assembly-plant near Winston Salem, North Carolina. Dell provides Information technology and global products and services over wide range of customers. It provides innovative customized based systems with outstanding value. Dell marketing strategy is quite simple and basic in nature, it is a customer- centric company. It provides products with time and cost by meeting the customer’s expectations. It has five features. Dell focus on product development strategy based on technologies including superior features and capabilities at competitive prices. Dell innovative system designs and new technologies to its products employees unique approach to its design and development of its products. It expands delivering product faster and serve the customers. It is an American multinational computer Technology corporation. Dell business model expand to the core business worldwide during the year 1980s and 1990s. The present study has made an attempt to brought out the risk involved in Dell laptop and problems faced by the Dell customers. This study may be useful to make any appropriate decisions for implementing various policies regarding the Dell laptop users.

**KEYWORDS:** Dell laptop, New technologies, Brand awareness, Customer design.

## INTRODUCTION

Dell became the world’s largest personal computer vendor in 2001, it gain market share and losses with billion of dollars. By passing through the seller channel 90% of its PC’s directly sells to the final customer. Dell business model became the direct relationship to the customer and it provides advantages to the indirect sales model. Dell gives additional advantages over indirect PC vendors to built customer’s specifications upon receipt of an order. In PC industry dell direct sales and build-to-order model has achieved superior

performance. It is very simple in concept but while executing it is complex. Manufacturing and logistics capabilities must have an excellent system supported by information laptops. As a virtual company or value web referred to adopt a new organizational structure have led it to demand of Dell’s model. Dell allow to capture a larger share of the customer’s IT spending closely with external partners.



## STATEMENT OF THE PROBLEM

Global branding has become more widespread of consumer's preferences in the increasing globalization and homogenization. There will be more hindrances in marketing of the brand. Nowadays the consumer becomes trendier so their taste, needs and preferences can change as per the current scenario. Laptop industry mainly depends on consumer buying behavior and preferences for the laptops. Brand awareness is the important attributes taken for this study in Tirupur District. Consumer preferences also taken for the study especially in Tirupur District. Hence the study is taken for the research purpose.

## OBJECTIVES OF THE STUDY

- To examine the satisfaction level DELL users
- To examine the benefits enjoyed by DELL users
- To analyze the suggestions and to give the suitable solutions to solve them.

## METHODOLOGY OF THE STUDY

### Research design

Research methodology is a science of studying how the research is to be carried out.

Descriptive research design is used for the study.

### Area of the study

The study is taken on in Tirupur District.

### Sample size

The sample size for the study is limited to 125 respondents.

### Sampling techniques

Convenience sampling technique is used for the study.

### Period of the study

The period for the study is 4 months i.e. January 2021 to March 2021.

### Methods of data collection

Questionnaire method is used to collect the data from the respondents.

### Source of data

The study is based on primary and secondary data. The primary data had been collected from the respondents through questionnaire and secondary data is collected from journals, books, magazines and newspapers.

## TOOLS USED IN THE STUDY

The collected data analyzed and interpreted by the respondents, classified into two ways like tabular and inference. Further, the following specific tools were used,

- Simple percentage analysis
- Weighted average analysis

## LIMITATIONS OF THE STUDY

- The study is limited only to Tirupur District. So the findings of the study does not considered for the other Districts.
- The main limitation of the study is Time factor and the research has been centered to 125 customers and this study is based on only by the information given by the customers.

## REVIEW OF LITERATURE

T. Porkodi (2018) has taken the problem that +\*/the consumers are satisfied or dissatisfied with the sales, services and supply of the laptops and other accessories for their continuous usage. In the study the researcher is to find out the satisfaction of the consumers towards the charges, the quality, the provisions and the level of consumer satisfaction towards the laptops for their official as well as the personal use. They are suggested to go for the right agency of the specific company for availing the services continuously. (T. Porkodi, A study on consumer preferences towards laptops in Tiruchirappalli District. International journal of pure and Applied Mathematics, ISSN: 1311-8080 119 (10), 2018.)

Dr. S. Namasivayam (2016) identified that the development of laptop industry mainly depends on customer satisfaction. The researcher can identified the factors and the preference of the respondents while purchasing laptops and know the level of satisfaction towards branded laptops. The researcher suggested that the companies should use multiple marketing channels to create brand awareness through TV media, Newspaper and Magazines. (Dr. S. Namasivayam, A study on brand awareness and consumers buying behaviour towards laptops with reference to Coimbatore city. International journal of multidisciplinary Research and Development, ISSN :2349-4182 3(2), 2016.)

## DELL BUSINESS STRATEGY

Marketing strategy is quite simple and basic in nature, it is a customer- centric company. Dell follows a 'direct business model', it removes the middlemen and the main emphasis is on the low- cost -strategy by selling the products at lower prices. Dell produces its products with the time and cost and offer higher level of customer service.



### ORGANISATION STRUCTURE

- The formal structure of the organization considers to the question of choice which select to the organization and by senior management.
- Structure of the division organization of component part to determine what these roles will play in achieving the goals and specific results for the whole organization.
- All parts of these goals provide for monitor for the structure of the organization.
- For the completion of new ideas top management support is not required.

- The highest class of quality.
- A pioneer in the field of technology.
- Competitive pricing.
- Accountability of individuals and companies.
- The best in level service and supporting.
- The ability of flexible customization (DELL 2009).

### DELL MISSION STATEMENT

Dell's mission is to meet the expectations of its customers and how-to dealing business with them by phone and internet one on one for:

### DELL ANALYSIS AND INTERPRETATION

- The analysis and interpretation of the study is based on the information supplied by a sample of 125 respondents.
  1. Simple percentage analysis of collected data.
  2. Weighted average analysis.

### SIMPLE PERCENTAGE ANALYSIS

**TABLE 1**  
**FACTORS CONSIDERED IN DELL LAPTOP**

S.NO	FACTORS	NO OF RESPONDENTS	PERCENTAGE
1	Configuration	25	20%
2	Battery back up	31	24.8%
3	Both of them	66	52.8%
4	Any other	3	2.4%
	<b>Total</b>	<b>125</b>	<b>100</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals the factors that the customer looked in Dell laptop before purchase.20% of the respondent looked for configuration,24.8% of the

respondent looked for battery back up,52.8% of the respondent prefer both of them and 2.4% of the respondent prefer others.

**TABLE 2**  
**FACTORS INFLUENCED TO PURCHASE DELL LAPTOP**

S.NO	FACTORS INFLUENCE TO PURCHASE	NO OF RESPONDENTS	PERCENTAGE
1	Cost	24	19.2%
2	Touch screen	47	37.6%
3	Memory card	22	17.6%
4	Display screen	32	25.6%
	<b>Total</b>	<b>125</b>	<b>100</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals the factors that the respondents influence to purchase the Dell laptop.19.2% of the respondents purchase the Dell for

the price,37.6% of the respondents purchase the Dell for the Touch screen,17.6% of the respondent purchase the Dell for Memory card and 25.6% of the respondent purchase the Dell for Display screen.



**TABLE 3**  
**SATISFICATION LEVEL OF DELL PRODUCTS**

S.NO	SATISFACTION LEVEL	NO OF RESPONDENTS	PERCENTAGE
1	Highly satisfied	27	21.6%
2	Satisfied	74	59.2%
3	Moderate	20	16%
4	Dissatisfied	4	3.2%
	<b>Total</b>	<b>125</b>	<b>100</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals that satisfaction level of Dell products. 21.6% of the respondent are highly satisfied, 59.2% of the respondent are satisfied, 16% of the respondent are moderately satisfied and 3.2% of the respondent are dissatisfied.

### WEIGHTED AVERAGE ANALYSIS

Under this method, the respondents are asked to rank their choices. This method involves ranking of the items given. To secure a ranking of all the items involved, the researchers total the weights which are given to each item. The heighted weighted score is ranked first and correspondingly the other ranks are assigned.

**TABLE 4**  
**SALE SERVICES OF DELL LAPTOP**

FACTORS	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	MEAN SCORE
Quality	60 300	42 168	12 36	6 12	5 5	<b>125</b> <b>521</b>	<b>4.168</b>
Service	20 100	75 300	23 69	7 14	0 0	<b>125</b> <b>483</b>	<b>3.864</b>
Price	19 95	41 164	56 168	7 14	2 2	<b>125</b> <b>443</b>	<b>3.544</b>
Offer	16 80	42 168	45 135	19 38	3 3	<b>125</b> <b>424</b>	<b>3.392</b>
Features	24 120	59 236	26 78	10 20	6 6	<b>125</b> <b>460</b>	<b>3.68</b>

### INTERPRETATION

The above table justifies the sale services of Dell laptop. The highest mean score or average is rises to 4.168 for the quality services of Dell laptop.

### FINDINGS

#### SIMPLE PERCENTAGE ANALYSIS

- Majority (55.2%) of the respondents are Male
- Majority (60.8%) of the respondents are between 20 to 30 years.
- Majority (81.6%) of the respondents are unmarried.
- Majority (66.4%) of the respondents are Under Graduate.
- Majority (59.2%) of the respondents are Student.

- Majority (38.4%) of the respondents are earning Below, Rs.20000.
- Majority (68%) of the respondents are the members between 3 to 4.
- Majority (74.4%) of the respondents are nuclear family.
- Majority (86.4%) of the respondent are aware about Dell laptop
- Majority (67.2%) of the respondents thought laptop is obligatory.
- Majority (59.2%) of the respondents are using Dell for Personal.
- Majority (48%) of the respondent are influenced by friends.
- Majority (51.2%) of the respondents are affected by the brand image of the Dell.



- Majority (54.4%) of the respondent felt that price was reasonable.
- Majority (52.8%) of the respondents prefer both of them.
- Majority (88%) of the respondent recommend Dell laptop to others.
- Majority (59.2%) of the respondent are satisfied with Dell products.
- Majority (45.6%) of the respondent are seen through web advertising.
- Majority (54.4%) of the respondent are facing the difficulties in average.
- Majority (37.6%) of the respondent purchase the Dell for Touch screen.
- Majority (56.8%) of the respondent are accepted to buy the Dell for its color and design.

service, quality and availability of new products. To improve the customer affinity dealer must aware about the product quality and store convenience. For a long tenure of the business trends, the dealer must give assurance to the quality and availability of new products. Dealer should satisfy the customers by giving good product to increase the sales and profit.

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## WEIGHTED AVERAGE ANALYSIS

- It is concluded from analysis that majority of the respondents are highly satisfied with quality sale services of Dell laptop and it also beneficiaries to the respondent because quality is primary for every product.
- It is concluded from analysis that majority of the respondents are dissatisfied with the offer after the sale services of Dell laptop which occur there is no highest offer.

## SUGGESTIONS

- Dell laptop users were faced by battery problems from the analysis. So, this company should concentrate more on improving battery efficiency.
- The respondents were expecting to service the Dell products quickly. So, there is a need to improve their quick service facility.
- The respondents were expecting different colors and styles of the laptops. So it is obligatory to concentrate on developing the style and comfort of the Laptops.

## CONCLUSION

Consumers choose the products where they can save time, money and effort, then finally move to the particular aspects of the Dell. These study is based on the demographic factors such as age, income, gender, and education, it plays essential role in the product selection. Customers mainly vary in choosing a product based on their significance for patronage factors of dealer. Nowadays, consumers are more concern about



# A STUDY ON ONLINE SHOPPING BUYING BEHAVIOUR AMONG COLLEGE STUDENTS WITH REFERENCE TO COIMBATORE CITY

[ DrNGPASC 2020-21 COM 87]

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## ABSTRACT

*Online shopping has become a new trend of shopping now a days and is quickly becoming an important part of life style. Online shopping is becoming increasingly popular for variety of reasons. There are certainly outside factors such as increasing gas prices difficulty in getting to traditional stores and hassles often associated with shopping malls and other traditional stores to contribute to the increase interest in online shopping. It is the procedure whereby customers legitimately purchase products, administrations and so forth from a vender intelligently continuously without a go-between administration over the web. Web based shopping is the way toward purchasing products and ventures from dealers who sell on the Internet. Since the development of the World Wide Web, dealers have tried to offer their items to individuals who surf the Internet. Customers can visit web stores from the solace of their homes and shop as they sit before the PC. Shoppers purchase an assortment of things from online stores.*

**KEYWORDS:** *Online shopping, Purchase products, Shopping malls, World Wide Web.*

## INTRODUCTION

Online shopping is a process whereby consumers directly buy goods, services etc. from a seller without an intermediary service over the Internet. Shoppers can visit web stores from the comfort of their house and shop as by sitting in front of the computer. Online stores are usually available 24 hours a day and many consumers have internet access both at work and at home. So it is very convenient for them to shop Online. One of the most enticing factors about online shopping, particularly during holiday season is, it alleviates the need to wait in long lines or search from a store for a particular item. Varieties of goods are available in online. So the researcher wants to know the preference of the consumers. So fifty respondents were met and data were collected regarding their preference towards shopping online.

## STATEMENT OF THE PROBLEM

Nowadays many online retailers play vital role in retail sectors. They design their online stores with lot of products and services options. These facilities are utilized by various people from different walks of life. Students segment have chances of utilization technology, seek more information and new product. But at the same time their buying behavior are influenced various aspects like dependability, income, experiences and taking decision on eagerness of new. This study focus on the problem of what are the factors influence their purchasing behavior, level of satisfaction over their purchase experience, and what kind of expectation they have.



## OBJECTIVES OF THE STUDY

- ❖ To know the attitude of students towards online shopping.
- ❖ To find out the product they prefer the most.
- ❖ To know the social economy characteristics of the customer.

## METHODOLOGY OF THE STUDY

### Research design

A Research design is a way of systematically solve the problem. Collection and analysis of data. It is descriptive.

### Area of the study

The study is taken on in Coimbatore City.

### Sample size

The sample size for the study is limited to 125 respondents.

### Sampling techniques

Convenience sampling technique is used for the study.

### Period of the study

The Period for the study is 3 months i.e. January 2021 to March 2021.

### Methods of data collection

Questionnaire method is used to collect the data from the respondents.

### Source of data

The study is based on primary and secondary data. Primary data is a data which is collected for the first time for the particular interest to collect more information. Secondary data is collected from journals, books, magazines and newspapers.

## TOOLS USED IN THE STUDY

The collected data analyzed and interpreted by the respondents, classified into two ways like tabular and inference. The tools were used,

- ❖ Simple percentage analysis
- ❖ Weighted average analysis

## LIMITATIONS OF THE STUDY

- ❖ The study is limited only to Coimbatore city. So the findings of the study does considered for the other city.
- ❖ Due to time constrains, the number of respondents taken for the study is limited to 125.
- ❖ Detailed interaction could not be carried due to time constrains.

## REVIEW OF LITERATURE

**M. Dhanalakshmi, M. Sakthivel, M. Nandhini** performed a research study on “A Study on Online Shopping buying behavior towards Coimbatore city”. The main objective of the research was to study the customer perception towards online shopping at Coimbatore district. The sample size of the research was 125 respondents. The researchers had adopted random convenience sampling technique to gather the data. The data were analyzed using the simple percentage analysis and average ranking analysis. As a end result of records analysis and interpretation, the researchers finish that the consumer’s belief of online purchasing varies from man or woman to any other and the belief is restricted to a positive quantity by the provision of the right connectivity and the publicity to the net purchasing must be advanced to make the customer satisfied. The belief of the customer also is similar and distinction primarily based totally on their private feature utilization primarily based totally on their desires and demand.

**Ashwini.N, Manjula. R** performed a research study on “An Empirical Study on Consumers Perception towards Online Shopping”. The main objective of the research was to understand the key motivators for consumers to search and shop online. It also investigates how different types of online buyers perceive a website differently. The sample size of the research was 125 respondents. The findings of the proposed research work are as follows as that online consumer concerns about lack of opportunity to examine the products prior to purchase are regarded as specific factor affecting the online buying decision. Also Customer goes online very often to compare the prices and features of the various branded products and services. Then Most of the respondents say online shopping helps them quick accessibility of a wide variety of products. Cash on delivery and easy replacement are one of the advantages of online shopping.

## CONSUMER BEHAVIOUR (OR BUYER BEHAVIOUR)

Consumer behaviour is an try to understand & expect human actions in the buying role. It refers back to the selection, buy and intake of products and offerings for the delight in their wants. There are different procedures concerned in the customer behaviour. Initially the customer attempts to discover what commodities he would really like to consume, then he selects best the ones commodities that promise extra utility. After choosing the commodities, the



customer makes an estimate of the available cash which he can spend. Consumer behaviour prepare as much as purchasing the product because there is discount for products. So, the consumers are buying the most of the products.

### FACTORS THAT BOOST ONLINE SHOPPING IN INDIA

- ❖ Rapid growth of cyber cafe's across India  
Access to Information
- ❖ The increase in number of computer users
- ❖ Reach to net services through broadband
- ❖ Middle-class population with spending power is growing.

Many of them have started to depend on internet to specify their shopping desires External

Environment Demographics Vendor/Service/Product Characteristics Website Quality Online Purchasing.

### POPULAR ONLINE ACTIVITIES UNDERTAKEN AND MOST USED WEBSITES

- ❖ Most used generic website/portal
- ❖ Whether undertake, and the most used website for each of the following online activities:
  1. Emailing & Instant Messaging/Chatting
  2. Job Search
  3. Online Shopping (other than travel products)
  4. General News
  5. Net Banking

### SIMPLE PERCENTAGE ANALYSIS

TABLE SHOWING THE PREFERENCE TOWARDS BUYING THROUGH ONLINE

S.NO	PREFERENCE TOWARDS BUYING THROUGH ONLINE	NO. OF RESPONDENTS	PERCENTAGE
1	Very convenience and time savings	51	40.8%
2	Low price	47	37.6%
3	Products variety	27	21.6%
	<b>TOTAL</b>	<b>125</b>	<b>100%</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals the buying preference through online of the respondents. It is clear that 40.8% of the respondents prefer it for very convenience and time savings, 37.6% of the respondents prefer it for low

price, and 21.6% of the respondents prefer it for variety of products.

Majority (40.8) % of the respondents prefer it for very convenience and time savings.

TABLE SHOWING THE TYPES OF PRODUCT BUYING IN ONLINE

S.NO	TYPES OF PRODUCT	NO. OF RESPONDENTS	PERCENTAGE
1	Electronics	27	21%
2	Clothing	41	33%
3	Mobiles	38	30%
4	Beauty	16	13%
5	Baking essentials	1	1%
6	Sport items	1	1%
7	Mostly books and some other accessories	1	1%
	<b>TOTAL</b>	<b>125</b>	<b>100%</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals that the types of product buying in online by the respondents. 21% of the

respondents are buying electronics, 33% of the respondents are buying clothing, 30% of the respondents are buying Mobiles, 13% of the



respondents are buying beauty, 1% of the respondents are buying Banking essentials, 1% of the respondents

are buying sport items, 1% of the respondents are buying Mostly books and some other accessories.

Majority (33%) of the respondents are buying mostly clothing.

**TABLE SHOWING THE MONTHLY INCOME OF THE RESPONDENTS**

S.NO	MONTHLY INCOME	NO. OF RESPONDENTS	PERCENTAGE
1	Below Rs.15,000	19	15.2%
2	Rs.15,000-Rs.25,000	32	25.6%
3	Rs.25,000-Rs.35,000	40	32%
4	Above Rs.35,000	34	27.2%
	<b>TOTAL</b>	<b>125</b>	<b>100%</b>

Source: Questionnaire

### INTERPRETATION

The above table reveals the monthly income of the respondents. It is clear that the 15.2% of the respondents are earning below Rs.15,000,25.6% of the respondents are earning from

Rs.15,000 to Rs.25,000,32% of the respondents are earnings from Rs.25,000 to Rs.35,000,27.2% of the respondents are earnings above Rs.35,000.

Majority (27.2%) of the respondents earning above Rs. 35,000.

### WEIGHTED AVRERAGE ANALYSIS

Under this method, the respondents are asked to rank their choices. This method involves ranking of the items given. To secure a ranking of all the items involved, the researchers total the weights which are given to each item. The heighted weighted score is ranked first and correspondingly the other ranks are assigned.

**TABLE SHOWING THE BEST PAYMENT METHOD IN ONLINE**

FACTORS	1(5)	2(4)	3(3)	4(2)	5(1)	TOTAL	MEAN SCORE
Amazon	68	30	22	3	2	125	<b>4.272</b>
Flipkart	15	61	35	13	1	125	<b>3.608</b>
Snapdeal	16	37	60	9	3	125	<b>3.432</b>
Shopclues	14	43	29	34	5	125	<b>3.216</b>
Myntra	20	42	37	8	18	125	<b>3.224</b>
	100	168	101	16	18	403	

### INTERPRETATION

The above table shows the best payment method in online. The highest mean score rise 4.272 for the Amazon.

purchases after physical examination of the commodities. The entire process can range from a few hours to weeks depending on the product, quality, quantity and source of purchase. Today there is a radical change in the entire scenario. Everything in today's world is Internet oriented like Electronic Data Interchange, E-Mail, E-Business and E-Commerce. E-Commerce is exchange of information using network-based technologies.

### CONCLUSION

In the past, consumers had sufficient time to visit shopping center's, searching for various products. Many consumers prefer bargaining and decide the



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## **ONLINE OPD MANAGEMENT & HOSPITAL MANAGEMENT SYSTEM**

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### **ABSTRACT**

*Information and Communication Technology (ICT) has made a significant impact on healthcare industry across all over. Its adoption and use which results in e-healthcare which transforms the way of healthcare services. This project APP for Online OPD Management & Hospital Management System is solution for one of the major problems that is booking online appointment of doctor easily at home. The main focus of our project is to study the flow of operations takes place in hospitals, appointment fixing, taking emergency cases, check nearby hospitals. For this we are developing a Web-app along with an automatic billing system & pharmacy. Real time data of all the parameters are extracted and displayed on dashboard of web-app. Technologies such as Django framework and visual studio are use in developing this web-app. Python and Sql are parsing and fetching the data respectively. Overall we are specially on reducing manual work & get appointment easily at home in pandemic situations.*



## INTRODUCTION

This paper put light on the web-app for online OPD management system and hospital management system(HMS)which analyses and manages the appointments and availability of doctors.

Here, We will specifically talk about online OPD using app What a wonder it would be if an HMS becomes smarter and can concern, contribute about healthcare.

To achieve this, we came up with the solution to develop a user-friendly interface in the form of Web-app for android mobiles developed by us for getting easy appointments and facilities according to patient requirements.

## LITERATURE SURVEY

There are many techniques and methods carried out till now for online appointments for some specific chains of specific private hospitals. This research results demonstration and usefulness of queing model on providing guidance on identification identifying patient panelist for medical practices for improving advance access.In year 2012 the published paper regarding literature review on patient scheduling techniques on computer science and engineering.This paper research describes the challenge of patient scheduling.In this they provide and option of patient scheduling with multiagent system distribution computing and coordination.According to our survey we get to know the different problems and actual flow of modules for our project.

## METHODOLOGY

We decided to make software in which all hospitals, doctors, their data registered in web-app will be filled in web-app. This data will further be displayed at admin dashboard of respective hospitals. The doctors will also be verified by respected hospitals and admin. Only then his profile and related data will be displayed in system. Without proper verification doctors cannot complete their registrations. After successful registration the appointment approved by receptionist will be displayed at doctor dashboard and all the patients registered on app and requested for the doctor choose by then will be displayed on receptionist dashboard. The work of receptionist is to fix an appropriate time slot for patients according to doctor schedule. In this app there are also provided medical pharmacy information in which required medicine available. The final bill payment will be done at receptionist counter they can use cash in hand or online methods

for final payment. The medical history of a patient can be view at patient dashboard as well as doctor dashboard. The medical history may contain the recent reports of test specific medicines which are previously used.

The process has been divided into two major categories:

1. Software for system.
2. Identity Verification for doctors and hospitals.

This is a zero level DFD of Hospital Management System, where we have elaborated the high level process of Hospital. It's a basic overview of the whole Hospital Management System or process being analyzed or modelled . It's designed to be an at a glance view of Medicine,Test and Doctor Fees showing the system as single high level process with its relationship to external entities of Hospital, Hospital Employee and Patient. It should be easily understood by a wide audience, including Hospital , Patient and Medicine in zero level DFD of Hospita Management System, we have described the high level flow of the Hospital system.



Data Flow Diagram of Hospital Management System

## A. SOFTWARE REQUIREMENT

- Software requirement consist of database, web application program and server.
- server : D-jango framework which is open source that encourages rapid development and clean, pragmatic design. and to facilitate the creation of forms
- Visual studio for coding and for developing android application.
- application program : Python , Rest API for creating website route .



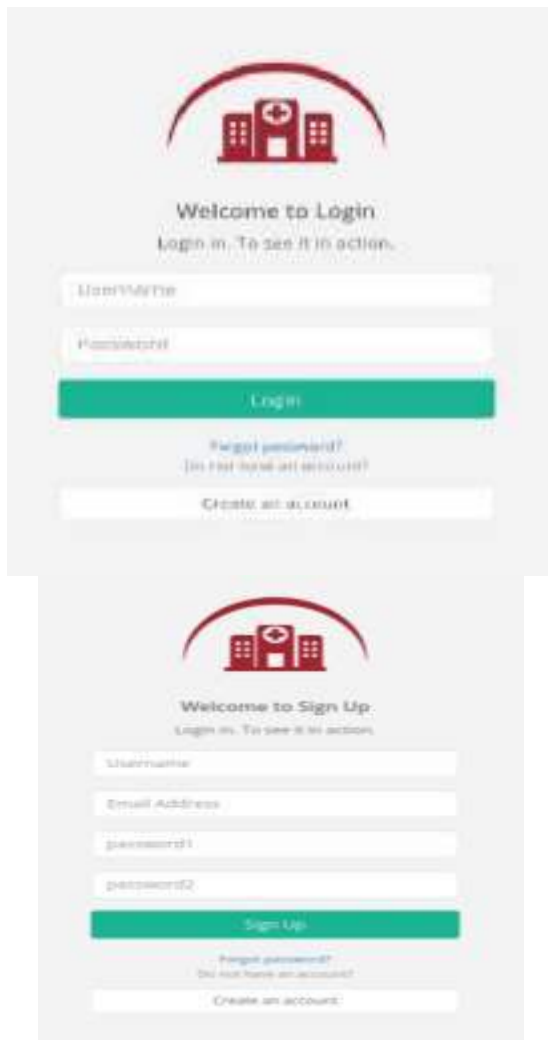
**B. HARDWARE REQUIREMENT**

- The basic requirement is a personal computer on the server side, which will store the database, RAM , Keyboard.
- User authentication is one of the major factors. Every doctor and hospital should be verified before registration by admin.

**RESULTS AND DISCUSSION**

The project of app for Online OPD Management & Hospital Management System was successfully tested on local machine. After installing the web-app on your mobile or tablet the first step is to register successfully on the login page.

Once the patient sign up then he/she needs to filled the basic information for registration. After registration on app the patient can view nearby hospitals or any hospital of his/her liking according to their requirements. After choosing specific hospital next step is to request for an appointment. This request is now further proceeded on receptionist desktop.



**Fig a . Login and Sign up form.**



**Fig b. Receptionist Dashboard**

The task for receptionist is to arrange appointments for patients according to doctor's schedule or as per patients request. Also if there are any important cases occurred at hospitals and in which doctor has to immediately operate the patient they the receptionist needs to notify the patients having appointment's immediately that there is change in schedule due to some specific reasons and rearrange their appointment's.



**Fig c. Doctor Dashboard**

After receptionist confirms the appointment the patient will visit the doctor. The doctor will diagnose patient and prescribe medicine according to their physical condition. If the patient has previously visited any hospital or have gone under some tests or have gone under some treatment his history can be seen at the doctor's dashboard. The doctor's dashboard contains list of patients visited on daily



basis. The list shows the time, date on which the appointments are scheduled.



**Fig d. Pharmacist Dashboard**

There are many multi-specialist hospitals available all over globe. In which all types of facilities are provided including medicinal facilities. Thus, this pharmacy module is for the Pharmacies available in those hospitals. Here, after prescription written by the doctor they get by pharmacist dashboard. They can see the availability of the medicines on dashboard after searching for it. The medicines are listed based on their name, manufactured date, stock availability, its power.(ex. Paracetamol 500 mg),etc



**Fig e. Admin Console**

The last and most important module is the admin console. The task for admin is to monitor all the functions of various departments. Also, the admin is required for the verification of the doctors, hospitals for validating their certificates. The profiles of hospitals or doctor only can be seen after they are verified by the admin. Admin also necessary for supervising the appointment events, pharmaceutical medicinal requirements, billing events in each department, workings of doctors , receptionist, pharmacist, etc.

## CONCLUSION

The app for online OPD management and hospital management system was successfully designed and tested for real time data. It can be easily used by the patients for requesting appointments and they can also mention for their time preference. It will help to solve problems like queuing for hours or having excessive crowd in hospitals The validation for hospitals and doctors are done for giving safe and secure healthcare treatments from best doctors. This project is software - based project and can run on any platforms like PC, tabs, laptops, mobiles which is connected to internet. Our project is helpful for patients and hospitals to solve their problems or least minimalize them so that the healthcare will be improve. Also, the rating system at last is to ensure the satisfaction of patients in hospitals which will help to resolve the problems within healthcare systems.

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## **A STUDY ON THE IMPACT OF MUDRA ON THE EMPOWERMENT OF MICRO ENTREPRENEURS IN TAMILNADU**

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### **ABSTRACT**

*The main motive behind this study to find out the major impact of Mudra Loan on Micro, Small & Medium Enterprises (MSME). The major traffic jam to the growth of entrepreneurs in the Non-Corporate Small scale industries is the lack of financial support to this sector. Majority of this sector does not have access to formal source of funding. In a Developing country having large population like India, small business units play a significant role not only in contributing to nation income but also by providing employment to a large number of people. After identifying the significance of self-employment people and small business units, government of India launched MUDRA Yojana to deal with the financial and other constraints. India who currently face difficulty to access credit from the regular banking system. Mudra Bank will associate with local coordinators and provide finance to "Last Mile Financers" of small/micro businesses.*

**KEYWORDS:** *Micro, Small, Medium Enterprises, mudra Yojana Scheme.*

### **I.INTRODUCTION**

Micro enterprises are considered as an important pillar of the economy as they account for 90% of non agriculture employment in the country. But still most of these units do not have access to formal credit facilities and rather they have to depend on informal sources such as family or friends to fulfill their credit requirement. This also leads to excessive exploitation of these entrepreneurs as they are forced to pay a large amount in the form of interest. To overcome such situations, the government has launched a scheme named Pradhan Mantri Mudra Yojana (PMMY) under the Honorable Prime Minister Mr. Narendra Modi on April 08, 2015. Micro Units Development & Refinance Agency (MUDRA) has been created as a part of this scheme. The objective of

PMMY was to bring the micro units under the formal credit mechanism as a part of the financial inclusion process. The core operations of MUDRA is to provide refinance support to the lenders who finance micro units engaged in manufacturing, trading or service sectors upto Rs 10 Lakhs. Micro Units Development & Refinance Agency (MUDRA) has been created as a part of this scheme. The objective of PMMY was to bring the micro units under the formal credit mechanism as a part of the financial inclusion process. The core operations of MUDRA is to provide refinance support to the lenders who finance micro units engaged in manufacturing, trading or service sectors upto Rs 10 Lakhs. MUDRA provides refinance support to commercial banks, RRBs, co-operative banks, Non-Banking Financial Companies (NBFCs) and Micro



Finance Institutions (MFIs) that are granting loans to micro enterprises. Other operations of MUDRA include securitization of loan assets, management of fund's resources, monitoring of PMMY, developing new products and operating Credit Guarantee Fund for Micro Units. MUDRA loans are provided to income generating small enterprises such as small manufacturing units, service sector enterprises, shop keeping, fruits and vegetable vending, trucking, operating food services, repairs and maintenance, operating machines, food processing, handicraft making both in the rural as well as urban areas and to the extent of Rs 10 Lakhs only. From FY 2016-17 onwards, activities related to agriculture have also been made eligible under PMMY.

### 1.1 Statement of the Problem

India, being a developing country, requires its micro entrepreneurs to grow and prosper because micro business play an important role not only in contributing to nation GDP but also providing employment to large number of people. But due to various constraints micro businesses are not playing their role effectively and the main reason behind that is, most of the individuals of our country living in rural area, have been excluded from the benefit of formal banking system, therefore, they had never access to various facilities like credit, loan, insurance, and other financial instruments to help them establish and grow their micro businesses. After identifying the importance of micro businesses and entrepreneurs, government of India launched the Mudra Bank Scheme under Pradhan Mantri Mudra Yojana to provide financial assistance to micro small medium enterprises.

### 1.2 Significance of the Study

MUDRA is a newest archetype of present central government. A harsh reality in the current economic scenario is that there are a number of facilities provided for the large industries in India, small entrepreneurs and informal business entities are often cut off from banking system because of limited branch presence and other constraints. The small businesses, with a little help, have the potential to grow manifold. MUDRA is a lending mechanism to make available funds and utilization for the lower segments with relaxed norms in comparison to conventional loans.

### 1.3 Objectives of the Study

1. To explore the socio economic profile of the micro entrepreneurs of Tamil nadu
2. To know the impact of MUDRA on the empowerment of micro entrepreneurs.

### 1.4 Methodology

The study is based on descriptive research design. An interview schedule has been designed, to know the point of view of respondent regarding the Impact of MUDRA on empowerment of micro entrepreneurs in tamilnadu. The interview schedule contains information regarding socio economic profile variables, Impact of MUDRA on the empowerment of micro entrepreneurs in Mudra Bank Yojana Scheme.

### 1.5 Collection of Data

The data required for the study was collected from both the primary and secondary sources during the period of 2020- 21. Primary data was collected to get first hand information about a topic and for the purpose of analyzing information.. Secondary data was collected through documentary research method.

### 1.6 Limitations of the Study

This study is subject to following limitations:

1. The respondents of this study were very reluctant to respond due to some unwanted fear. They were not much receptive in responding to the researcher. This made the researcher to choose only the entrepreneurs who were freely available and far interview.
2. The interview schedule is also lengthy which was irritating in nature. Therefore, the respondents were not patient enough to and respond appropriately. This leaves room for in complete and inaccurate response.

## II. REVIEW OF LITERATURE

**Public Policy Research Centre(2018)** conducted a research to assess the impact of Pradhan Mantri MUDRA Yojana in Delhi NCT. The study highlights that to what extent MUDRA become successful in job generation and extension of livelihood. This study also discussed case studies of the beneficiaries of MUDRA Yojana and its impact on their business. The study found that MUDRA has an impact on the economy by creating livelihood and opportunities for employment of peoples. In addition to that study found some challenges to the MUDRA like lack of awareness, capacity building and supporting etc.



### III. ANALYSIS OF DATA

ANOVA' test for Significant difference among communities of micro entrepreneurs with respect to Factors Influencing for availing Loan through Mudra Bank Yojana Scheme

Factors Influencing for availing Loan through Mudra Bank Yojana Scheme	Community (Mean Score)			F Statistics
	OC	OBC	SC/ST	
Quick appraisal and approval of loan	3.0385	3.9219	3.9595	9.668*
Less processing fee	2.8462	3.6484	3.6577	7.287*
Repayment period	2.8846	3.7708	3.7252	8.470*
Easy disbursement	3.2308	3.7656	3.8198	3.444*
Problem of finance	3.3462	3.9323	3.9005	4.522*
Less risk bearing capacity	3.1538	3.9089	3.8919	6.715*
Time saving	3.3071	4.0885	3.8559	10.016*
Proper customer service	3.2692	3.9146	3.9092	5.257*
Recognition of customers	3.1154	3.9453	3.9003	9.597*
Easy availability	3.5769	3.8464	3.8243	0.828
Proper response	4.0385	3.9479	3.9640	0.238
Simple loan procedure	3.8462	4.0156	4.0766	2.299
Low EMI	2.6538	3.5365	3.4459	10.375*
Lack of infrastructure	2.8462	3.8516	3.8378	12.506*
Low rate of interest	3.3077	3.8464	3.8829	4.133*

Source: Primary data

\*-Significant at five per cent level

It is understood from the above table that the important factors influencing for availing loan through Mudra Bank Yojana Scheme among the micro entrepreneurs who belong to OC are proper response and simple loan procedure as their mean scores are 4.0385 and 3.8462 respectively. Table reveals that the important factors influencing for availing loan through Mudra Bank Yojana Scheme among the micro entrepreneurs who belong to OBC are time saving and simple loan procedure as their mean scores are 4.0885 and 4.0156 respectively. Table further reveals that simple loan procedure and quick appraisal and approval of loan are the important factors influencing for availing loan through Mudra Bank Yojana Scheme among the micro entrepreneurs who belong to SC/ST as their mean scores are 4.0766 and 3.9595 respectively. Regarding the factors influencing for availing loan through Mudra Bank Yojana Scheme among different communities of micro entrepreneurs, quick appraisal and approval of loan, less processing fee, repayment period, easy disbursement, problem of finance, less risk bearing capacity, time saving, proper customer service, recognition of customers, low EMI, lack of infrastructure and low rate of interest are statistically significant at 5 per cent level.

business and the existing entrepreneur's availed loan for expansion of their business activities. The major problems faced by micro entrepreneurs in accessing the credit under the MUDRA loans were lengthy processing time for the loan application. It is also observed that, they do not receive full amount of loan applied for. The main benefits of MUDRA loan is that the borrowers are not required to provide collateral or any other security. But the banks do not have that much of trust on newly established enterprises or start-ups to provide loan without any collateral. So some banks demand collateral for this loan. MUDRA scheme has the potential to create self-employment and it helps in the growth of micro and small enterprises in the country.

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### V. CONCLUSION

The study found that the main purpose for which beneficiaries availed MUDRA loan for starting a new



## **LANGUAGE AWARENESS IN TEACHING ENGLISH FOR B1 KARAKALPAK LEARNERS**

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### **ABSTRACT**

*Language Awareness has been suggested using in methodology by foreign linguists and researchers. Language Awareness is an essential dimension of learning and teaching the language. It develops a good knowledge and conscious understanding about language, effects to language use, language learning and teaching. This paper considers how Language Awareness has been defined and examines which aspects are foregrounded in various conceptions of language awareness. The significance of Language Awareness in teaching Foreign languages, the importance of raising learners' awareness and implementation of Language Awareness in methodology have been investigated in the article.*

**KEY WORDS:** *language awareness, language acquisition, language teaching, activity, grammar, vocabulary.*

### **DISCUSSION**

Current educational process demands highly developed and accurately arranged teaching system which involves effective approaches, innovative methods and techniques for training foreign language by dent of its importance in all spheres of education. Through focusing on relevant and effective method in teaching and learning foreign languages both teachers and learners achieve their goal of foreign language acquisition. The range of approaches, methods and techniques are numerous in type as users choose them taking into consideration the suitability and usefulness for teaching and learning process.

One of the most essential approaches of foreign language learning is considered Language Awareness that has been stood out in the field of language education in recent years. The concept of awareness was first associated to language in the late 1950s, when linguists and researchers in Australia and scholars like Hawkins or Halliday in Great Britain supported the idea that language teachers should not limit to help their students learn the target language, but ought to guide them about how to cope with issues related to language in general, to culture

and to learning. This view was not widely accepted by academics in those days, but in the lasts two or three decades the so-called "language awareness movement" has re-emerged in the field of language learning, in part, thanks to the work of Hawkins who claimed that the observation of languages promotes linguistic reflection and favors the acquisition of the metalinguistic competence [1999; 122-124].

The precise definition of Language Awareness was presented by the Association for Language Awareness (ALA): "Language Awareness is an explicit knowledge about language, and conscious perception and sensitivity in language learning, language teaching and language use". Language awareness issues include exploring the benefits that can be derived from developing a good knowledge about a language, a conscious understanding of how languages work, of how people learn them and use them. Several linguists and researchers favored the idea of Language Awareness and scrutinized the essence of its utilization in wide length and gave own justifications. One of the most impressive and commonly cited definitions of Language awareness is given by Donmall G in her



report prepared for the United Kingdom National Congress on Languages in Education (NCLE):

“Language awareness is a person’s sensitivity to and conscious awareness of language and its role in human life.”

Language is a social phenomenon that plays an essential role in human lives. All human beings begin to acquire a language as they start to talk and get to a proficiency level when they are children, though this is an unconscious process. That is, they are able to use the language quite well but are not able, for example, to recognize the grammar or explain what they have used. However, learning another language when the students are adults becomes a conscious process for they have already learned their native language and had other background knowledge which may facilitate or interfere with their learning [2012; 23-33].

In accordance with the definition of the linguist Donmall that learners own particular notion about the language which they speak or learn and spontaneously utilize the function, follow the structures and produce the language as the result of this notion which appeared in individual’s mind. Language awareness directs the knowledge of learners to the correct utilization of the language and forms the effective production as background knowledge can help to develop consciousness and sensitivity.

Language awareness is an internal, gradual, realization of the realities of language use. Language awareness is input processing by using cognitive strategies such as noticing, hypothesis testing, problem solving, and restructuring, that allow the student to notice how the language works and contrasting his/her interlanguage with the target language to make the necessary adjustments to his grammar learning. It is aimed to raise learners’ awareness of important linguistic features and help students construct their own grammar using personal exploration. As language awareness is essential in teaching, learning and using the language, there will be a need for increasing students’ language awareness. Learners cognize in their mother tongue, develop ideas and speech, study grammar rules and while learning the foreign or second language they learn by heart the new words through the translation, compare the grammar rules, take their first language as a guide for acquiring the new language. Taking into consideration the given explanation, it can be identified that the prime point of gaining the language is practice which involves doing various kind of activities and put the language in active utilization.

As activities work for the enhancement of the language acceptance and production, lead to revise and strengthen the language in practice, obtain

background knowledge and enlarge the intuition. Schmidt has explained the importance of language awareness activities as following: “Students have to explore structured input and develop an awareness of certain linguistic features by performing some activities” [1993;13,206-22].

Every language is learnt, taught and used completely by practicing more, doing various exercise and activities. Through activities learners raise their awareness of language that they are learning. The more do activities, the more aware of the language. In our work we have investigated the importance, types and elements of activities which raise learners’ language awareness. Language awareness activities in our work devoted to the grammar. Through these activities students will be able to raise their awareness and language use. During doing activities learners should use their knowledge background of grammar.

In order to prove the significance of language awareness and develop awareness raising activities, we have designed a manual “Fly High English 9 Grammar & Vocabulary” which involves grammar and vocabulary exercises that help to strengthen the background knowledge and integrate language skills, raise learners’ awareness of language, prepare additional materials to consolidate the topic and provide extra activities to practice more during the lesson. The designed manual has become helpful for us initially to increase the number of source for teaching process; alternatively it has ensured data for making analysis of our research work to identify the essence of language awareness activities. The grammar explanations and activities have been learned and done by pupils of secondary school with whom we cooperated and made a research to determine the effect of the awareness raising activities.

We will demonstrate an example taken from the manual in order to confirm the process of doing awareness raising activities during the lesson. The learners are given the structure of the grammar topic Conditionals and demonstrated grammar activity. The procedure of the task fulfillment is focused on changeable PPPs that first learners are presented structure then they practice activities and get a product. Second version is that learners first practice the activities then teacher present them grammar structure and at last get a product. In both cases are applicable for the learners to produce the result by obtaining the language and practicing it. Learners become aware of the structure and produce the language by noticing the grammar, learning, understanding the language. Such kind of procedure of the activities help learners produce the language effectively and teachers explore the language productively.



**Grammar topic: Conditional**

**Conditional**

Conditional clauses consist of two parts: **if clause (hypothesis)**

**main clause.**

When “if clause” comes before the main clause, the two clauses are separated with a comma.

*Water turns into ice if it freezes. If water freezes, it turns into ice.*

There are four types of conditionals: **Type 0, Type 1, Type 2, Type 3.**

**Type 0 or Zero conditional**

**Zero conditional** is used to express *general truth, scientific fact, definitions.* e.g. *If water freezes, it turns into ice.*

**Structure**

If Clause	Main Clause
If/When+ present simple	Present Simple

**Activity 1**

e.g. If you water plants, they grow

Match the items in column A with those in column B in order to make correct type 0 conditional sentences, as in the example.

Column A	Column B
If you water plants	it stays fresh
If you mix blue and yellow	it falls to the ground
If you put food in the fridge	it becomes water
If you drop something	they grow
If it rains	carbon dioxide is produced
If ice melts	the roads get slippery
If you burn fossil fuels	you get green

**Activity 2 Rewrite the sentences using type 0 conditional.**

e.g. If Tina passes her exams, she becomes a student.

1. Tina wants to be a student. Pass exams/ become a student
2. Tom wants to be a champion. Win the match/ become a champion

3. Alice wants to be a surgeon. Get medical knowledge/ become a surgeon
4. John is interested in repairing cars. Learn to repair cars/become a mechanic
5. Peter loves playing the piano. Play the piano/become a pianist

The given structure and explanation of grammar topic and activities are based on forming grammar



background, raising awareness, developing vocabulary, consolidating and checking understanding of the learners. Grammar explanation is presented in an accurate, brief and relevant way that learners can grasp the form, function and meaning themselves by learning the given structure, explanation and examples. The understanding level of learners depend on teachers' method and own technique used during the lesson and learners' ability to acquire the knowledge.

The first activity is devoted to enlarge awareness of grammar structure and vocabulary, awareness of background knowledge of given data. Learners make sentences using the consciousness of demonstrated information following the grammar structure. At the same time they work on grammar & vocabulary, get additional information and sharpen their mind. This activity motivates learners to revise the structure and complete the task as they are interesting and easy to do. They automatically obtain the structure while matching and making the sentence, it does not make them difficult and bored.

The complexity rate of activities is sequenced as second activity is designed much more complicated and difficult to do. However, learners get practice from first activity and become aware of the structure for doing the task. In the second activity, it should be made a sentence which expresses the way of achieving their purpose that is given in the first sentence. Learners should make a complete sentence using the clauses focusing on the form and meaning of the Zero Conditional. This designed activity ensures practice to form sentences and use actively in speech and basically it helps to scrutinize the grammar topic.

Being aware of language and its use is important in all languages. We will look through the importance of language awareness in Karakalpak language through examples. Through examples we identify the effect of language awareness to the vocabulary, realize the meaning of the words from the context, choose appropriate word, know all the meaning of words and its use in sentences. The examples are related to vocabulary of Karakalpak language: the meaning of words in the sentences and their definitions. Vocabulary is all the words in language and it is central to language teaching because without sufficient vocabulary learners can't understand others and express their ideas. Without vocabulary nothing can be conveyed, so learners expand vocabulary and teachers use vocabulary learning strategies effectively.

We learn to guess the meaning of words from the context, define the exact meaning of the word, understand and use correctly in a particular situation from the first example.

Example:

*Bunsha suw ishe berip ku'shala jedin'be?-dedi g'arri balag'a (Q. x.e)*

*You are drinking too much water. Have you eaten kushala?*

*(from karakalpak national story)*

In the sentence the word *kushala* is not clear not only non-native but also native speakers. But from the context we can realize *kushala* is something that makes people thirsty and guess *kushala* is food, vegetable or fruit that people can eat. If we need precise meaning of the word, we can look it up from dictionary.

*Kushala* is an acid plant grown in mountainous and hot territories, used as medicine for treatment. After knowing the definition it will be clear the objective of using and the meaning of the sentence. This sentence isn't used in everyday speech to say that somebody is drinking too much water without realizing the exact meaning of *kushala*. We can equalize this sentence with the sentence "*Onshama sho'lep baliq jedin'be?*" (*You are so thirsty. Have you eaten fish?*) and the last sentence is widely spoken in everyday speech. *Baliq* is a cold-blooded vertebrate animal that lives in water, moving the help of fins and breathing with gills. They become available to eat after being cooked Fried fish makes people thirsty and this sentence has become as a phrase to show exclamation for the people who become thirsty and drinking too much water. According to the meaning of the last sentence *kushala* may be thought to be a meal as *baliq*, but *kushala* is plant and both of them can make people thirsty. "*Onshama sho'lep bali'q jedin'be?*" is more common and widely used than "*Bunshama suw isheberip kushala jedin'be?*" but both of them are told to people who are thirsty and drinking much.

A word can define various meanings and we can identify from the context which meaning the word expresses. Through the following example we can realize the variety of meanings of a word, choose and use appropriate meaning in sentences.

*O'mirinde shayqalg'an jas qara tal,*

*A'miwdaya suwlarinan na'r alar*

(I.Yusupov)

*Young willow waving in life*

*Gaining its strength from Amudarya (Karakalpak poet I. Yusupov)*

The current meaning of *na'r ali'w* is "to eat". We use another meaning such as "take a pleasure", "strength" according to the meaning and use in the context. "*Na'r ali'w*" is more literal and usually used in poetry and prose. It strength the meaning and makes the composition more effective and expressive. In this poem *nar aliw* doesn't mean to eat, it means get power. We can realize it from the context while reading the poem.



Being aware of various meanings of words, its use in sentences, texts, poems, guessing and realizing from the context help us to gain positive attitude, integrate the knowledge and own rich vocabulary.

Each language has its own phraseological units but can be found equivalents from other languages. It can be a bit difficult to be aware of all the phraseological units, use permanently, choose suitable phrases in various cases. Phraseological units strengthen and enrich the idea, make the sentence more effective. Karakalpak language rich in phraseological units and we will define one of them.

*To 'rt jag 'i qubla*

*(Four side is south if we translate letter by letter)*

From the meaning of the words we can realize as “someone can go anywhere he or she wants” and it directs the way. But the phrases don't usually define the same as its components. This phrase describes the person who “can afford everything he or she wants, calm and whose wishes came true”. This phrase combines several meanings such as rich, calm and happy. Language awareness is required to understand the phrases and use correctly, choose the suitable phrases in particular situations.

We have explained the importance, use of language awareness and integrate students' language awareness through introducing them such kind of examples. By increasing students' awareness, they are better able to understand, appreciate and use the language.

Abovementioned theoretical justifications represent the value and significance of Language Awareness and presented grammar explanations and activities prove the practical essence and necessity of Language Awareness in Foreign Language Teaching. From the observations it is precise that there is a need for Language Awareness to involve in Foreign Language Teaching process and develop the method by designing relevant awareness raising activities, form appropriate techniques, provide its implementation in the curriculum.

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