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ENTREPRENEURSHIP EDUCATION AND SECONDARY SCHOOL STUDENTS' SKILLS ACQUISITION IN SOUTHERN SENATORIAL ZONE, KANO STATE, NIGERIA

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ABSTRACT
This study investigated entrepreneurship education and secondary school students' skills acquisition in the Southern Senatorial Zone of Kano State, Nigeria. The objectives were to assess the availability of qualified teachers, the adequacy of infrastructural facilities, and the extent of their utilisation for entrepreneurship education. A descriptive survey design was adopted with a population of 3,438 SS III students. Using a multistage sampling approach, 100 students from 20 senior secondary schools were sampled. Data were collected using the 'Students' Skills Acquisition Questionnaire' (SSAQ), which was validated by experts and found to be reliable, with a Cronbach's Alpha of 0.77. Descriptive statistics were used to answer the research questions, while Chi-square tests were used to test hypotheses at the 0.05 significance level. Findings revealed that students' acquisition of entrepreneurial skills was generally low. Results also indicated inadequate numbers of qualified teachers, poor provision of infrastructural facilities and underutilisation of available resources. Chi-square analysis confirmed significant relationships between teacher availability, infrastructure, utilisation, and students' skills acquisition. The study concludes that entrepreneurship education in senior secondary schools in the Southern Senatorial Zone of Kano State, Nigeria, is ineffective and recommends government should increase teacher recruitment and training, improve infrastructure, and ensure efficient supervision for effective utilisation of facilities.
KEYWORDS: *Entrepreneurship Education, Skills Acquisition, Teachers, Infrastructure, Secondary Schools.*

INTRODUCTION

Entrepreneurial development is considered a panacea for increasing employment opportunities in such economies, and it is also regarded as a function of education. The focus of the education system all over the world is the development of the human capital required to meet present and future challenges of globalisation and the knowledge economy, and secondary school graduates are the stepping stone. However, education has been regarded as the vehicle for entrepreneurship skills and scientific development, especially among secondary school graduates. It had undoubtedly broadened horizons, brought about creative minds, skills and talents which are the hallmark of scientific development and innovations. In this context, entrepreneurship is the process of starting and running a new business or venture, intending to create a product, service, or solution that adds value to the market and generates profits.

Economies around the world increasingly recognise the role of entrepreneurship in fostering economic growth and job creation; the integration of entrepreneurship into the educational curriculum has become a priority for many countries (Adelowo & Henrico, 2025). In Nigeria, where the youth unemployment rate remains high, entrepreneurship education is seen as a crucial strategy for equipping young people with the skills and mindset needed to create their own opportunities and contribute to the nation's economic development.

Unemployment as well as crime rates keep on increasing in Nigeria especially among youth, due to joblessness. According to National Bureau for Statistics (NBS, 2022), the youth unemployment rate in 2017 was 14.45%, in 2018 was 16.18%, in 2019, 17.72%, in 2020, 19.61% and in 2021, 19.67% respectively. That is why individuals and governments today are encouraging entrepreneurship through various policies and programmes. Individuals support local entrepreneurs through investments or mentorship. Meanwhile, governments implement policies such as tax incentives, access to funding, streamlined regulations, and entrepreneurship education to foster a conducive

environment for startups (Okoye & Duru, 2019). Its relevance is not confined to the context of new venture creation or the management of small businesses but rather to national development. Organisations of all sizes (schools inclusive) and in all sectors are requiring people to respond in ways that could be characterised as 'entrepreneurial'.

Apparently, the importance of entrepreneurship to the sustenance of the growth of the economy via Gross National Product (GNP) and the provision of job opportunities over the years has been recognised by every government. The effect of entrepreneurial activities on economic growth and development has made entrepreneurship education gain worldwide recognition in countries such as the United States of America, France, Germany, Britain, and Nigeria, among others. The Nigerian government, through various educational reforms, has emphasised the need for entrepreneurship education at different levels of the educational system. Specifically, the introduction of entrepreneurship curriculum in public senior secondary schools aims to prepare students for the challenges of the modern workforce by providing them with the necessary skills to initiate and manage businesses. This initiative aligns with global trends that promote the integration of practical, skills-based learning within traditional academic settings. Skills acquisition is crucial for entrepreneurship because it equips individuals with the necessary competencies to start and sustain businesses. Entrepreneurship education has increasingly focused on the development of practical skills, as these are vital for successful business creation and management. The traditional theoretical approaches to entrepreneurship education are insufficient; there is a growing need for curricula that blend theory with hands-on skills training, emphasising the need for an integrated curriculum that combines both theoretical knowledge and practical skills.
The need for students to acquire and exploit entrepreneurship skills and capacities as resourcefulness, innovation, creativity, ingeniousness, self-motivation, risk daring, endurance, willingness to accept positive and negative results of life ventures, dynamic, and management ability. In this regard, entrepreneurship is the ability to think positively and creatively and become an effective problem solver. Consequently, the National Economic Empowerment and Development Strategy (National Planning Commission, 2004) acknowledged that the only way Nigeria's economy could be transformed and sustained is through education, particularly general education found in the proper implementation of entrepreneurship curriculum. In line with the above, educating young secondary school students on entrepreneurs and unlocking entrepreneurial capabilities to meet the challenges of the 21st century, students for success and eventual leadership in the new global marketplace is the most important responsibility that education is expected to provide today.

In response to these ongoing national and global reforms in the social, physical and economic contexts, the Federal Government through the Nigerian Educational Research and Development Council (NERDC) in 2009 introduced a new Senior Secondary Education Curriculum (SSEC) and 34 Trade/Entrepreneurship curriculum aimed to meet national and global goals such as NEEDS, EFA and SDGs, and to bridge the gaps in the content and delivery processes of the extant curriculum. This curriculum was designed to ensure that every senior secondary education graduate is well prepared for higher education, as well as acquire and be able to utilise relevant functional trade/entrepreneurship skills needed for poverty eradication, and job creation (Egbebi, Dada & Keston, 2021).

The success of entrepreneurship education programmes demands a very good policy, and also the achievement of such educational targets as highlighted earlier would, to a large extent, depend upon the successful implementation of the curriculum. Thus, a critical challenge for contemporary secondary education, then, is how to create the commitment and capacity to analyse and understand environmental forces and to effectively implement the curriculum to meet the emerging needs of a global economy and knowledge society. However, entrepreneurship education largely depends on the effective implementation of the curriculum, which includes the availability of qualified teachers, adequate infrastructural facilities, and instructional materials. In the southern senatorial zone of Kano State, Nigeria, these factors are particularly critical, given the socio-economic dynamics of the region.

The capacity of teachers who teach entrepreneurship education in some institutions has been fingered as a reason for the poor-quality delivery. There is a dearth of teachers with practical training in entrepreneurship education. The majority of entrepreneurship teachers are from traditional disciplines such as economics or business administration. Apart from the deficient qualifications of teachers, the shortage of entrepreneurial consciousness is also indicated as a challenge to the quality delivery for impact of entrepreneurship education in Nigerian secondary schools. Researcher's experience has shown that the inadequacy of school facilities is a major source of frustration and disillusionment among teachers and students in the educational system. Additionally, it is not only the school plants that should be of functional quality and adequately provided at all times; the teachers who use these facilities should

be provided with different types of school facilities, which should exceed set targets. Entrepreneurship education, whose subjects require numerous plants should be acquired and distributed with equipment for practical exercises given more attention so that lessons can be driven home to the learners. In order to equip students with entrepreneurial skills and competencies, the use of appropriate instructional resources. Teaching in this modern period is increasingly becoming more complex and technological to be teaching with traditional tools alone but rather developments in modern technology have made available a wide range of instructional materials to supplement teachers' efforts in the teaching-learning process. Utilisation of instructional materials in the teaching of entrepreneurship subjects is another concern and would promote meaningful communication between the teachers and students, enhance effective teaching and motivate individualised instruction through which learning is assured. Proper utilisation of instructional facilities serves a useful purpose in promoting understanding of concepts and principles of entrepreneurship subjects.

Entrepreneurial skills acquisition is said to be the necessary set of skills required to be an entrepreneur. In other words, entrepreneurial skills acquisition is the set of necessary skills an entrepreneur needs to successfully run a business or add value to work. Dangana, Nafiu, and Isienyi (2023) argued that acquisition skills must be nurtured through proper education so that it can be directed to responsible and enriching small business endeavours that will benefit the individuals and the communities in which the entrepreneurs live. Skills acquisition, as a basic ability, is how humans adjust to life (Christine, 2023). A person's attitude and work functions are required and necessary antidotes, suggesting suitable skills and the acquisition of these by going through a given work sample.

Entrepreneurship teachers are crucial for delivering effective entrepreneurship education. There is a significant gap between the demand for entrepreneurship education and the availability of qualified teachers to deliver it. In a study by Asiimwe, Smith, and Oyetunde (2023), the authors highlighted that many educational institutions struggle to find teachers with both practical business experience and the pedagogical skills necessary to teach entrepreneurship. The shortage is exacerbated by the fact that entrepreneurship is a relatively new field in many education systems, meaning that fewer educators have formal training in this area. In addition, Morselli, Costa and Valero (2022) pointed out that many teachers who are assigned to teach entrepreneurship lack sufficient experience in the business world, which limits their ability to provide students with real-world insights and practical skills. Obembe and Olasunkanmi (2023) found that students taught by well-trained and experienced entrepreneurship teachers showed significantly higher levels of entrepreneurial skills, such as problem-solving, creativity, and business management, compared to those taught by less qualified teachers.

The availability of infrastructural facilities in educational institutions plays a critical role in enhancing students' skills acquisition. Skills acquisition is an essential component of modern education, preparing students for the workforce and contributing to national development. Infrastructural facilities, such as well-equipped laboratories, workshops, libraries, and ICT centres, are crucial for effective teaching and learning processes. The presence of these facilities directly impacts the quality of education and the ability of students to acquire practical skills. According to Ajayi and Ekundayo (2021), adequate infrastructural facilities are foundational to delivering a curriculum that meets the demands of the modern workforce. Their study highlights that without such facilities, students struggle to translate theoretical knowledge into practical skills.

The utilisation of infrastructural facilities is pivotal in fostering entrepreneurship and skills acquisition among students. While significant progress has been made in improving these facilities, challenges such as inadequate resources and unequal distribution persist. Addressing these challenges requires concerted efforts from stakeholders to ensure that all students have access to the necessary infrastructure to develop their entrepreneurial potential. Infrastructural facilities, such as well-equipped laboratories, workshops, incubators, and digital resources, are vital in providing students with hands-on experience and practical skills essential for entrepreneurship. These facilities allow students to experiment, innovate, and apply theoretical knowledge in real-world scenarios. A study by Olamide, Akinyemi, and Bello (2022) emphasised the importance of state-of-the-art infrastructure in fostering entrepreneurial skills among students. The study found that institutions with better facilities tend to produce more innovative and successful entrepreneurs. The researchers noted that the availability of modern technology and resources encourages students to engage in entrepreneurial activities and develop critical skills such as problem-solving, creativity, and business management. Similarly, Afolabi and Adekunle (2023), investigated the impact of infrastructure on students' entrepreneurial intentions. Their research indicated that the presence of well-maintained and accessible facilities significantly influences students' decisions to pursue entrepreneurship as a career path. The mere presence of infrastructure is insufficient if it is not optimally utilised. Olaniyi and Adeyemo (2017) argue that proper utilisation of

available resources, including workshops and ICT tools, allows students to apply theoretical knowledge practically, thereby enhancing their entrepreneurial skills.

STATEMENT OF THE PROBLEM

The integration of entrepreneurship education into the senior secondary school curriculum was initiated as part of a broader effort to equip students with relevant knowledge, practical skills, and positive attitudes necessary for self-employment and economic participation. This policy direction aligns with the nation's developmental goals of reducing dependency on white-collar jobs and promoting job creation through entrepreneurial ventures. Despite the inclusion of entrepreneurship education in the curriculum, the extent to which it translates into actual skills acquisition among senior secondary school students remains a concern, especially in public schools. In the Southern Senatorial Zone of Kano State, anecdotal evidence and preliminary observations indicate a significant mismatch between the intended goals of entrepreneurship education and the realities on the ground. Several public secondary schools are plagued with challenges such as insufficient qualified teachers specialised in entrepreneurship subjects, a lack of modern instructional materials, and inadequate infrastructural facilities needed to support practical learning. These constraints undermine the proper implementation of the entrepreneurship curriculum and limit students' opportunities for experiential learning and innovation. Moreover, where facilities and instructional resources exist, they are often underutilised due to factors such as poor maintenance, inadequate training of teachers in practical pedagogy, or lack of motivation among educators. It is against this backdrop that this study seeks to examine entrepreneurship education and senior secondary students' skills acquisition in the Southern Senatorial Zone of Kano State, Nigeria.

AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to examine entrepreneurship education and secondary school students' skills acquisition in the Southern Senatorial Zone, Kano State, Nigeria. Specifically, the objectives of this study are to:

1. examine the extent of available qualified teachers for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?
2. determine the extent of available infrastructural facilities for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?
3. find out the extent of infrastructural facilities for entrepreneurship education utilised in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?

RESEARCH QUESTIONS

The following research questions will guide the study.

1. To what extent are there available qualified teachers for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?
2. To what extent are there available infrastructural facilities for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?
3. To what extent are the infrastructural facilities for entrepreneurship education utilised in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?

HYPOTHESES

To guide the study, the following hypotheses will be formulated and tested at a 0.05 level of significance.

1. There is no significant relationship between the availability of qualified teachers and students' skills acquisition in senior secondary schools in the southern senatorial zone, Kano State, Nigeria.
2. There is no significant relationship between the availability of infrastructural facilities and students' skills acquisition in senior secondary schools in the southern senatorial zone, Kano State, Nigeria.
3. There is no significant relationship between utilization of infrastructural facilities and students' skills acquisition in senior secondary schools in southern senatorial zone, Kano State, Nigeria.

METHOD

The design of the study was a descriptive survey. The population of the study was made up of 3,438 SS 3 students from 42 senior secondary schools across the 2 Local Government Areas in the Southern Senatorial zone in Kano State, Nigeria. There were 100 students in 20 senior secondary schools sampled for the study using a Multistage sampling approach. Data for the study were collected through the "Students' Skills Acquisition Questionnaire" (SSAQ) developed by the researcher. The questionnaire was validated by four research experts; two in the Educational

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Management unit and two experts in the Research, Measurement and Evaluation Unit in the Department of Educational Foundations, Faculty of Education, University of Jos. Cronbach's Alpha was used to estimate the reliability of the questionnaire, with a reliability coefficient of 0.77. Research questions raised were answered using mean and standard deviation, while the hypotheses were tested using Chi-square at a 0.05 level of significance.

RESULTS

Answer to Research Questions

Research Question One: *To what extent are there available qualified teachers for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?*

Table 1: Extent of Availability of Qualified Teachers for Entrepreneurship Education

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	N	Mean	Std. Deviation	Decision
1.	My school has adequate qualified teachers to teach entrepreneurship subjects.	16 (16)	11 (11)	40 (40)	33 (33)	100	2.10	1.04	Disagree
2.	My entrepreneurship subject teachers have relevant training.	41 (41)	28 (28)	26 (26)	5 (5)	100	3.05	.936	Agree
3.	My entrepreneurship teachers use appropriate teaching methods for skill acquisition.	46 (46)	26 (26)	15 (15)	13 (13)	100	3.07	1.05	Agree
4.	My teachers are regularly trained on entrepreneurship education for professional development.	23 (23)	8 (8)	19 (19)	50 (50)	100	2.04	1.23	Disagree
5.	Teachers in my school demonstrate adequate knowledge of entrepreneurship content.	35 (35)	33 (33)	21 (21)	11 (11)	100	2.92	1.00	Agree
	Grand Mean						**2.64**		**Agree**

Source: Field Data (2025)

The result from Table 1 reveals a mixed perception regarding the availability of qualified teachers for entrepreneurship education: Respondents disagreed that their schools had adequate numbers of qualified entrepreneurship teachers (Item 1, Mean = 2.10), and also disagreed that teachers were regularly trained for professional development (Item 4, Mean = 2.04). On the other hand, respondents agreed that the entrepreneurship subject teachers have relevant training (Item 2), used appropriate teaching methods (Item 3), and possessed adequate knowledge of entrepreneurship content (Item 5), with mean scores ranging from 2.92 to 3.07. The grand mean of 2.64 indicates that, on average, respondents agreed that there is some level of availability of qualified teachers for entrepreneurship education. However, the agreement is marginal, reflecting an area that needs improvement, particularly in terms of teacher numbers and professional development opportunities. Although qualified entrepreneurship teachers are available to some extent in senior secondary schools in the Southern Senatorial Zone of Kano State, they are not sufficient in number, and ongoing training opportunities appear to be lacking. This could undermine the sustainability and impact of entrepreneurship education in the region if not addressed through targeted policy actions.

Research Question Two: *To what extent are there available infrastructural facilities for entrepreneurship education in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?*

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Table 2: Extent of Availability of Infrastructural Facilities for Entrepreneurship Education

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	N	Mean	Std. Deviation	Decision
1.	My school has a well-equipped workshop/laboratory for entrepreneurship training.	9 (9)	24 (24)	25 (25)	42 (42)	100	2.00	1.02	Disagree
2.	My school has sufficient tools/equipment for practical entrepreneurship activities.	26 (26)	16 (16)	30 (30)	28 (28)	100	2.40	1.15	Disagree
3.	Entrepreneurship instructional materials are available in my school.	10 (10)	9 (9)	27 (27)	54 (54)	100	1.75	.99	Disagree
4.	My school has access to ICT tools for teaching entrepreneurship education.	8 (8)	7 (7)	11 (11)	74 (74)	100	1.49	.94	Disagree
5.	Facilities for vocational and technical skills (e.g., sewing machines, carpentry tools) are available in my school.	9 (9)	13 (13)	29 (29)	49 (49)	100	1.83	.98	Disagree
	Grand Mean						**1.89**		**Disagree**

Source: Field Data (2025)

The result in Table 2 shows that all five items received mean scores below the 2.50 benchmark, indicating respondents disagreed that their schools were adequately equipped with infrastructural facilities for entrepreneurship education. The lowest mean (1.49) was recorded on access to ICT tools, reflecting extremely poor digital infrastructure. Although Item 2 (tools and equipment) had the highest mean of 2.40, it was still not sufficient to meet acceptable standards. The grand mean of 1.89 confirms that infrastructure for entrepreneurship education is generally lacking across the sampled schools.

Research Question Three: *To what extent are the infrastructural facilities for entrepreneurship education utilised in senior secondary schools in the southern senatorial zone, Kano State, Nigeria?*

Table 3: Extent of Utilisation of Infrastructural Facilities for Entrepreneurship Education

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	N	Mean	Std. Deviation	Decision
1.	Facilities for entrepreneurship education in my school are regularly used during lessons.	34 (34)	11 (11)	33 (33)	22 (22)	100	2.57	1.17	Agree
2.	My school organize practical sessions using school's entrepreneurship facilities.	30 (30)	10 (10)	21 (21)	39 (39)	100	2.31	1.27	Disagree
3.	My teachers encourage students to utilize entrepreneurship facilities.	34 (34)	26 (26)	19 (19)	21 (21)	100	2.73	1.14	Agree
4.	Students are allowed to practice skills using available facilities	12 (12)	13 (13)	20 (20)	55 (55)	100	1.82	1.07	Disagree
5.	Entrepreneurship projects in my school are carried out using the school's facilities.	30 (30)	22 (22)	24 (24)	24 (24)	100	2.58	1.16	Agree
	Grand Mean						**2.40**		**Disagree**

Source: Field Data (2025)

The results in Table 8 show a mixed pattern of responses regarding the utilisation of available infrastructural facilities: Three out of five items (Items 1, 3, and 5) had mean scores above 2.50, indicating moderate agreement that facilities are being utilised. The highest-rated item was Item 3 (Mean = 2.73), which reflects that teachers are encouraging

students to use available facilities. However, Items 2 and 4 recorded mean scores below 2.50, showing disagreement regarding the frequency of practical sessions and opportunities for student hands-on practice. The grand mean of 2.40, which is slightly below the 2.50 benchmark, implies that the overall level of utilisation of infrastructural facilities is low to moderate. While teachers appear motivated to use facilities, the practical implementation in terms of hands-on student engagement is weak.

Test of Hypotheses

HO_1: *There is no significant relationship between the availability of qualified teachers and students' skills acquisition in senior secondary schools in the southern senatorial zone, Kano State, Nigeria.*

Table 4: Chi-Square Result Summary of the Relationship between Availability of Qualified Teachers and Students' Skills Acquisition

	Value	Df	Asymp. Sig. (2-sided)	Decision
Pearson Chi-Square	39.520[a]	15	0.001	
Likelihood Ratio	37.480[b]	13	0.000	Reject Ho
N of Valid Cases	100			

Source: Field Data (2025)

Table 4 shows the Chi-Square value of 39.520 with 15 degrees of freedom, and a p-value of 0.001 indicates a statistically significant relationship between the variables. Similarly, the Likelihood Ratio (value = 37.480, df = 13, p = 0.000) supports this conclusion. Since the p-values are less than 0.05, the null hypothesis is rejected. Therefore, it is concluded that there is a significant relationship between the availability of qualified teachers and students' entrepreneurship skills acquisition**.** This means that the level of teacher qualification and availability significantly influences how well students acquire entrepreneurial skills in school.

HO_2: *There is no significant relationship between the availability of infrastructural facilities and students' skills acquisition in senior secondary schools in the southern senatorial zone, Kano State, Nigeria.*

Table 5: Chi-Square Result Summary of the Relationship between Availability of Infrastructural Facilities and Students' Skills Acquisition

	Value	Df	Asymp. Sig. (2-sided)	Decision
Pearson Chi-Square	98.080[a]	15	0.000	
Likelihood Ratio	37.480[b]	13	0.000	Reject Ho
N of Valid Cases	100			

Source: Field Data (2025)

Table 5 shows the Chi-Square value of 98.080 with 15 degrees of freedom yielded a p-value of 0.000, which is well below the 0.05 significance level. Likewise, the Likelihood Ratio test also produced a p-value of 0.000, confirming the reliability of the result. Based on this, the null hypothesis is rejected, and it is concluded that there is a statistically significant relationship between the availability of infrastructural facilities and students' entrepreneurship skills acquisition**.** This means that schools with better infrastructural support (e.g., workshops, instructional materials, ICT tools, vocational facilities) are more likely to produce students who acquire practical entrepreneurial skills.

HO_3: There is no significant relationship between the utilisation of infrastructural facilities and students' skills acquisition in senior secondary schools in the southern senatorial zone, Kano State, Nigeria.

Table 6: Chi-Square Result Summary of the Relationship between Utilisation of Infrastructural Facilities and Students' Skills Acquisition

	Value	Df	Asymp. Sig. (2-sided)	Decision
Pearson Chi-Square	21.600[a]	15	0.000	
Likelihood Ratio	37.480[b]	13	0.000	Reject Ho
N of Valid Cases	100			

Source: Field Data (2025)

Table 6 shows that the Chi-Square value of 21.600 with 15 degrees of freedom resulted in a p-value of 0.000, which is well below the 0.05 level of significance. Similarly, the Likelihood Ratio also shows a p-value of 0.000, supporting the reliability of the result. Since the p-values are less than 0.05, the null hypothesis is rejected. The results indicate that there is a statistically significant relationship between the utilisation of infrastructural facilities and students' skills acquisition in senior secondary schools in the Southern Senatorial Zone of Kano State. This means that when

infrastructural facilities are better utilised—such as for practical sessions, entrepreneurship projects, and hands-on activities—students are more likely to acquire relevant entrepreneurial skills. The implication is that underutilization of available facilities, as earlier revealed in the descriptive analysis, contributes negatively to students' ability to engage in practical entrepreneurship learning and skill-building.

DISCUSSION OF FINDINGS

The present study investigated entrepreneurship education and senior secondaryschools students' skills acquisition in the Southern Senatorial Zone of Kano State, Nigeria. The findings revealed several critical issues concerning teacher qualification, infrastructural availability, and the utilisation of facilities, all of which significantly influenced students' entrepreneurial competence.

First, the findings on the availability of qualified teachers revealed a mixed picture. Although some teachers demonstrated adequate knowledge of entrepreneurship content and employed appropriate teaching strategies, their overall numbers were insufficient, and opportunities for continuous professional development were lacking. This agrees with the work of Asiimwe, Smith, and Oyetunde (2023), who noted that many schools struggle to find teachers with both pedagogical skills and practical entrepreneurial experience. Similarly, Obembe and Olasunkanmi (2023) found that students taught by well-trained entrepreneurship teachers exhibited stronger creativity and problem-solving skills. The Chi-square test results in this study further confirm that the availability and competence of teachers significantly influence students' entrepreneurial skill acquisition.

Second, the study highlighted a severe shortage of infrastructural facilities for entrepreneurship education. Respondents reported inadequate workshops, poor access to ICT facilities, and a lack of vocational equipment and instructional materials. This outcome aligns with Ajayi and Ekundayo (2021), who emphasised that adequate infrastructure is foundational for translating theoretical knowledge into practice. The statistical test also demonstrated that infrastructural availability strongly impacts students' skills acquisition. Without the necessary tools and resources, the goals of entrepreneurship education cannot be achieved effectively.

Third, concerning the utilisation of infrastructural facilities, the study found only a low-to-moderate level of usage. While teachers encouraged students to use available resources, practical sessions and hands-on projects were limited. Olaniyi and Adeyemo (2017) argued that utilisation of resources is as important as their provision, stressing that underutilisation hinders experiential learning. The Chi-square analysis in this study corroborated this by showing a significant relationship between facility utilisation and students' entrepreneurial competence. This implies that inadequate use of resources weakens the skill-building potential of entrepreneurship education.

The study reinforces the argument of Morselli, Costa, and Valero (2022) that entrepreneurship education requires more than curricular inclusion; it demands qualified teachers, adequate facilities, and effective pedagogical practices. Similarly, the findings echo Dangana, Nafiu, and Isienyi (2023), who argued that entrepreneurial skills must be nurtured through structured education and practical exposure. Therefore, the study provides empirical evidence that the gaps in teacher availability, infrastructure, and utilisation are central obstacles to achieving the objectives of entrepreneurship education in the study area.

CONCLUSIONS

This study concludes that entrepreneurship education in public senior secondary schools in the Southern Senatorial Zone of Kano State faces significant challenges that limit its effectiveness. Although some qualified teachers are available, their numbers and opportunities for professional development are inadequate. Infrastructural facilities required for entrepreneurship education—such as ICT tools, vocational equipment, and functional workshops—are grossly lacking. Furthermore, the utilisation of existing facilities remains low, restricting students' opportunities for practical engagement. The study confirmed, through statistical analysis, that the availability of qualified teachers, infrastructural facilities, and their utilisation each had a significant influence on students' skills acquisition. Thus, unless these challenges are addressed, the objectives of entrepreneurship education—fostering self-reliance, reducing unemployment, and promoting innovation—will remain largely unachieved.

RECOMMENDATIONS

Based on the findings, the following recommendations are made:

1. Government should employ more qualified entrepreneurship teachers with both pedagogical competence and practical business experience and regular workshops and professional development programmes should be institutionalised.
2. State government authorities, in partnership with private stakeholders, should invest in well-equipped workshops, ICT centres, and vocational tools to support practical entrepreneurship learning and Ministry of Education should strengthen monitoring and evaluation mechanisms to ensure the effective delivery of entrepreneurship education, including facility usage and teacher competence.
3. Government and School administrators should enforce policies that mandate regular, practical use of existing facilities, students should be engaged in hands-on projects and entrepreneurial simulations, strong linkages should be established between schools, local entrepreneurs, and industries to provide mentorship, internships, and real-world exposure.

If implemented, these recommendations can enhance entrepreneurship education in Kano State and beyond, equipping students with the skills necessary for sustainable self-employment and economic development.

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