



# FINANCIAL KNOWLEDGE AND PERFORMANCE OF MICRO, SMALL, AND MEDIUM ENTERPRISES (MSMES) IN CENTRAL INDIA

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## ABSTRACT

The key objectives of this study are to find the influence of financial knowledge on the performance of MSMEs in Central India, which includes the states of Madhya Pradesh and Chhattisgarh, India, and to assess the financial knowledge scores of entrepreneurs. Purposive and convenience sampling were used to collect the data from 459 MSMEs entrepreneurs. These enterprises work in service, manufacturing, and trading sectors, where data was collected with the help of a bilingual (English and Hindi) questionnaire based on 5-point Likert scale questions. Financial knowledge has five subdimensions: taxation and interest rate, financial markets, financial planning and budgeting, banking products and services, and government schemes. The MSME's performance has been measured through six indicators, which are profit, sales and revenue, total assets, number of employees, wages and salaries of employees and repayment of dues. After calculating the average value of both variables, simple linear regression analysis was used to test the hypothesis. Results showed a significant positive effect ( $F= 59.014$ ,  $p < 0.001$ ), with financial knowledge explaining 11.4% of performance variance ( $R^2 = 0.114$ ;  $Beta = 0.338$ ,  $p < 0.001$ ), leading to the rejection of the null hypothesis. Financial knowledge scores ( $FK = 72.24$ ) highlight a moderate to high level of financial awareness, where financial planning and budgeting (82.40) shows the highest scoring dimension, followed by taxation and interest rate (82.40), but a weak score in financial markets (52.30), highlighting the need for improvement. These findings underscore the role of financial knowledge as a key driver of MSME success. The study suggests a focused financial education programme that is especially intended to improve financial markets-related awareness and enhance entrepreneurial capacity.

**KEYWORDS:** Financial Knowledge, MSMEs Performance, Regression Analysis, Central India

## INTRODUCTION

Individuals' Financial knowledge indicates a good understanding of financial concepts, principles, and operational procedures, which supports efficient money management and strategic financial decision-making and is a key dimension of financial literacy as recognised in contemporary research. There are different aspects which are included in the domain of financial knowledge, such as personal finance (budgeting, saving, and debt management) and corporate finance (capital structure and investment appraisal, banking operations, stocks, bonds, mutual funds, and insurance). This practical knowledge enables individuals to apply these principles effectively daily to solve financial challenges while considering the current market dynamics and economic trends. Financial efficiency and understanding are essential in developing economies like India, where the need for financial inclusion is crucial, and most often, it is promoted by the governments to ensure equitable participation and taken many initiatives to introduce tailored financial products and services (World Bank, 2020). Tangible competencies of financial knowledge are visible through the ability of individuals to calculate and interpret compound interest, navigate credit and loan amortisation, evaluate investment opportunities, and better financial planning, including retirement and tax optimisation. Much scholarly research indicates a strong positive correlation between financial knowledge and enhanced financial behaviour, where financially literate individuals exhibit an increased probability of saving money, needful borrowing, and long-term investment, as a result, increased economic stability and personal wealth accumulation (Lusardi & Mitchell, 2014). Acquiring financial knowledge through any channel, whether from formal education, such as university degrees in economics or finance, professional training or informal learning through peer networks, and hands-on experience in many places, will increase



financial competency and confidence to deal with any financial challenges in a globalised and digitised economic environment.

Financial knowledge is more often interchangeably used as financial literacy within scholarly discussion (Huston, 2010), but financial literacy is a multifaceted construct that includes both theoretical knowledge and practical aptitude in diverse financial domains. The (OECD, 2020) framework describes five basic pillars of financial knowledge, such as understanding of simple and compound interest, the time value of money concept, and the effect of inflation on pricing and investment returns. Individuals with advanced financial knowledge demonstrate precision in the ability to compute compound interest (Atkinson & Messy, 2012), a better understanding of the time value of money concept and use it in financial planning (Agarwalla et al., 2015), and a deeper understanding about the effects inflation on purchasing power and investment returns (Lusardi & Mitchell, 2011). Moreover, these individuals show greater numeracy skills, which is quite essential for quantitative financial analysis (Van Rooij et al., 2011), and they also keep their portfolios diversified to minimise the risk and optimise the overall return (Agarwalla et al., 2015).

Due to the low level of financial knowledge among individuals in different continents whether it is developed or developing nations, it becomes a cause of concern not only for the government but also for the economy at large (Lusardi & Mitchell, 2011). A study by (Agarwalla et al., 2015) highlights the issue of a lack of fundamental understanding of financial concepts and numeracy skills in developing countries, which impacts economic growth and limits financial inclusion. (Herd et al., 2012) advocate a practical awareness of financial concepts among individuals rather than just theoretical knowledge about personal finance, while (Filipiak & Walle, 2015) also highlights the need for practical familiarity with financial products and services, like credit cards and deposit schemes, as vital components of financial competency. These findings highlight the complexity of financial knowledge and position it as an important factor for informed decision-making amid complex contemporary markets. These studies suggest tailor-made financial education interventions and policy formulation to increase financial knowledge and awareness among different demographic profiles and economic landscapes (Atkinson & Messy, 2012). Objectives of the study: a. to determine the financial knowledge score of the Micro, Small, and Medium entrepreneurs. b. to assess the effect of financial knowledge on MEMEs performance.

## LITERATURE REVIEW

Financial literacy and financial knowledge are often seen as the same concept (Musah et al., 2022), but they are conceptually different yet interconnected. (Huston, 2010) provides a foundational frame and explains financial literacy as a comprehensive concept which not only encompasses the theoretical awareness of financial concepts but also the confidence, skills, and human capital to use the knowledge for ideal financial decision making. In contrast, financial knowledge is a narrow concept that includes essential financial principles related to transactions, savings, investment, payment and insurance to make informed decisions in their day-to-day financial management (Bajaj & Kaur, 2022). The broader concept of financial literacy includes practical financial skills like budgeting, credit management, investment planning, attitude towards money and financial behaviours (saving habits or debt management) (Huston, 2010). (Dewi et al., 2020) developed a framework which says financial literacy integrates financial knowledge, skills, attitudes, and behaviour and operates in a cohesive manner to produce financial outcomes. This comprehensive perspective highlights that financial literacy is awareness of financial data, an analytical approach of theoretical insight, practical uses and a creative mindset with consistent behavioural patterns.

Different research on financial knowledge indicates that demographic variables significantly influence the individual's financial concepts and comprehension capacity. The age of the people has a curvilinear impact, where younger and older adults show diminishing financial literacy as compared to middle-aged individuals (Lusardi & Mitchell, 2011). It also has a positive correlation with age, as its increases literacy level also increases (Filipiak & Walle, 2015). Women often demonstrate lower levels of financial knowledge than men, especially in debt management and risk evaluation (Lusardi & Tufano, 2015); however, cultural norms intrinsically impact the gender gap (Filipiak & Walle, 2015). Level of income exhibits a positive relation with financial knowledge, whereas higher income shows a higher level of financial knowledge (Van Rooij et al., 2011). Educational achievements produce enhanced financial literacy (Lusardi & Mitchell, 2011), whereas targeted financial education has a significant correlation (Huston, 2010). Similarly, the employment and unemployment status of the people has an inverse impact on knowledge, where employment has considerable influence and unemployment shows reduced financial knowledge (Lusardi & Tufano, 2015). Parental characteristics or economic experiences affect knowledge acquisition (Shim et al., 2010). Formal education and informal learning collectively unfold financial learning over

the years (Bucher-Koenen et al., 2017). These multifaceted demographic influences underscore the complexity of financial knowledge acquisition.

Hypothesis of the study: financial knowledge has no significant effect on the MSMEs performance.

### RESEARCH METHODOLOGY

This study applied purposive and convenience sampling techniques to gather the data from 459 Micro, Small, and Medium Enterprises (MSMEs) in Madhya Pradesh (Jabalpur, Shahdol, Sidhi, Singrauli, Anuppur, Umariya, and Indore) and Chhattisgarh (Bilaspur, Raipur, GPM, MCB, and Durg). The selected business owners are both registered and unregistered MSMEs from sectors like service, manufacturing, and trading, and these owners have at least two to three employees to ensure they have established business operations. We have used a structured questionnaire to collect the primary data, which is administered through direct personal visits and online surveys facilitated by the Udyam registration portal to ensure better reach, and it was in both English and Hindi language to accommodate the linguistic diversity of the regions. A 5-point Likert scale-based question to capture the responses of the respondents. For the hypothesis testing, we used simple linear regression where financial knowledge was independent, and MSMEs performance was the dependent variable. Financial knowledge was operationalised through five distinct components: Taxation and Interest Rate (understanding related tax and interest calculation), Financial Markets (awareness of market instruments and functions), Financial Planning and Budgeting (skills in better allocation of funds and forecasting), Banking Products and Services (understanding of loans, savings accounts, and other financial products), and Government Schemes (knowledge of subsidies and support programmes). Conversely, MSME performance was measured with six indicators: Total Assets (value of business holdings), Profit (net earnings), Repayment of Dues (timeliness of debt servicing), Wages and Salary of Employees (compensation levels), Number of Employees (workforce size), and Sales and Revenues (income generated). This statistical tool helped in the examination of the direct effect of financial knowledge on the performance of MSMEs. The simple linear regression model expressed as  $PFM = \beta_0 + \beta_1 FK + \epsilon$ , (where PFM is MSMEs performance, FK denotes financial knowledge,  $\beta_0$  is the intercept,  $\beta_1$  is the slope of the coefficient, and  $\epsilon$  is the error term) facilitated the quantification of the strength and direction of this relationship, assuming linearity and independence of observations. This entire approach provided an efficient framework to identify enhanced financial knowledge that can contribute to MSMEs performance in Central India.

### RESULTS AND ANALYSIS

**Table 1: Pearson Correlations Between Financial Knowledge and MSMEs Performance**

	MSMEs Performance	Financial Knowledge
MSMEs Performance	1.000	0.338**
Financial Knowledge	0.338**	1.000

Note: \*\*p < 0.01 (1-tailed).

**Table 2: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	0.338	0.114	0.112	0.943160	0.114	59.014	1	457	0.000

Note: Predictors: (Constant), Financial Knowledge; Dependent Variable: MSMEs Performance.

**Table 3: ANOVA Results for the Regression Model**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	52.496	1	52.496	59.014	0.000
Residual	406.525	457	0.890		
Total	459.021	458			

Note: Dependent Variable: MSMEs Performance; Predictors: (Constant), Financial Knowledge.

**Table 4: Coefficients of the Regression Model**

Model	Unstandardised Coefficients	Standardised Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	-4.389E-6	0.044		0.000
Financial Knowledge	0.338	0.044	0.338	7.682

Note: Dependent Variable: MSMEs Performance.



The result of simple linear regression, which investigated the relationship between financial knowledge and the performance of (MSMEs); descriptive statistics exhibits standardised variables, with MSMEs performance showing a mean of 0.00000 (SD = 1.001113) and financial knowledge a mean of 0.00001 (SD = 1.001091). The correlation between financial knowledge and MSMEs performance demonstrates moderately positive ( $r = 0.338$ ,  $p < 0.001$ , one-tailed), indicating a significant association. The output of the regression model reveals a statistically significant relationship where  $F(1, 457) = 59.014$ ,  $p < 0.001$ , accounting for 11.4% of the variance in MSMEs performance ( $R^2 = 0.114$ , Adjusted  $R^2 = 0.112$ ), with a standard error of the estimate of 0.943160. Financial knowledge proved to be a significant predictor. Its result, with an unstandardised coefficient of  $B = 0.338$  (SE = 0.044) and a standardised coefficient of  $\text{Beta} = 0.338$  ( $t = 7.682$ ,  $p < 0.001$ ), explains that a one standard deviation increase in financial knowledge leads to a 0.338 standard deviation increase in MSMEs performance. The intercept was negligible and non-significant ( $B = -4.389E-6$ , SE = 0.044,  $t = 0.000$ ,  $p = 1.000$ ), consistent with standardised data. Assumptions of regression analysis, such as normality, were checked with a histogram, and its bell-shaped curve was reasonably satisfied. Also, the scatterplot of standardised residual values indicates random dispersion, which supports the assumptions of linearity and homoscedasticity. These findings provide strong evidence to reject the null hypothesis with a significant p-value ( $p < 0.001$ ) and a positive effect size ( $\text{Beta} = 0.338$ ), proving a meaningful positive influence of financial knowledge on MSMEs performance.

**Table 2.11: Financial Knowledge Score of Entrepreneurs:**

FINANCIAL KNOWLEDGE (FK)	72.24
Financial Planning and Budgeting (FPB)	82.40
Taxation and Interest Rate (TIR)	82.40
Banking Products and Services (BPS)	72.60
Government Schemes (GS)	71.50
Financial Markets (FM)	52.30

This table explains the Financial Knowledge (FK) scores of MSME entrepreneurs, which says a moderate to high level of financial competency (FK = 72.24) among the owners. Among the sub-variable scores, Financial Planning and Budgeting (FPB = 82.40) and Taxation and Interest Rate (TIR = 82.40) show strong results, revealing robust skills related to resource management and following regulatory compliance. Banking Products and Services (BPS = 72.60) and Government Schemes (GS = 71.50) demonstrate reasonable knowledge. A lower score in Financial Markets (FM = 52.30) shows a significant knowledge gap, which impacts the capitalisation of investment opportunities and managing risks effectively.

## DISCUSSION

The rejection of the null hypothesis explains that financial knowledge significantly enhances the performance of MSMEs in Madhya Pradesh and Chhattisgarh, India; results of simple linear regression analysis  $F(1, 457) = 59.014$ ,  $p < 0.001$  indicate that financial knowledge accounts for 11.4% of performance variance ( $R^2 = 0.114$ ), with a standardised coefficient ( $\text{Beta} = 0.338$ ,  $p < 0.001$ ). The prior study by (Lusardi & Mitchell, 2014) also highlights the linkage between financial literacy and enhanced business outcomes (Lusardi & Mitchell, 2014). A moderately high level of Financial Knowledge (FK) score (FK = 72.24) reveals a good understanding of the financial concepts among business entrepreneurs that can be used for the effective utilisation of financial resources and opportunities. At the same time, there are some areas which need improvement, such as the Financial Markets score (FM = 52.30) highlights a critical gap, which is hindering the potential growth of MSMEs. A moderate level of  $R^2$  gives us a sense of positive influence on business performance that can be further improved by providing financial markets-related awareness training along with other specific things.

## CONCLUSION

Our study has analysed the impacts of financial knowledge on MSME performance in Madhya Pradesh and Chhattisgarh, India, which have used 458 responses and convenience and purposive sampling. The results of regression analysis explain 11.4% of performance variance ( $R^2 = 0.114$ ), which demonstrates the positive impact of financial knowledge on MSMEs performance. Financial Knowledge (FK) scores (FK = 72.24) exhibit moderately high competency among MSMEs entrepreneurs in Central India, but limited knowledge about financial markets is a bit of a challenging situation for them, which needs attention and future studies may intervene with training programmes and look how they are performing. A moderate correlation ( $r = 0.338$ ,  $p < 0.001$ ) and robust, standardised residuals -3.093 to 2.058 indicate the consistency of results, which is aligned with the study of (Lusardi & Mitchell, 2014) and explains the importance of financial knowledge for business people. This study may also have the potential bias due to the use of purposive and convenience sampling, which limits



the generalisability but provides strong evidence and insights about financial knowledge. The study advocates targeted financial education, especially in financial markets, to bolster MSME resilience and economic empowerment in India.

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