

Determinants of Financial Literacy among Individuals in Karnataka: An Empirical Analysis of Socio-Economic, Digital and Behavioural Factors

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Abstract

Financial literacy has emerged as an essential capability for individuals to make informed decisions regarding savings, borrowing, investment, insurance, retirement planning, and the use of digital financial services. Despite the rapid expansion of formal banking and digital financial infrastructure in India, substantial differences remain in individuals' ability to understand and effectively use financial products and services. The present study examines the factors affecting financial literacy among individuals in Karnataka. Specifically, it investigates the influence of financial education, income, financial socialisation, digital financial exposure, access to financial services, and financial attitude on financial literacy. The study adopts a quantitative, explanatory research design and proposes collecting primary data from respondents across selected districts representing different regions of Karnataka. A structured questionnaire based on established financial literacy dimensions is used for data collection. Descriptive statistics, reliability analysis, correlation analysis, and multiple regression analysis are proposed for testing the relationships between the identified factors and financial literacy. The study is expected to identify the major determinants responsible for variations in financial literacy and provide implications for policymakers, financial institutions, educational institutions, and financial education agencies in designing targeted financial literacy interventions in Karnataka.

Keywords: Financial Literacy, Financial Education, Financial Socialisation, Digital Financial Exposure, Financial Inclusion, Financial Attitude, Karnataka

1. Introduction

The increasing complexity of financial markets has made financial literacy an important life skill. Individuals today are required to make decisions concerning bank accounts, credit, insurance, investments, pensions, taxation, digital payments, and long-term financial planning. Poor understanding of these areas may result in inappropriate borrowing, inadequate savings, financial fraud exposure, weak investment decisions, and insufficient preparation for emergencies and retirement. Financial literacy extends beyond the possession of basic financial knowledge. It incorporates an individual's knowledge, behaviour, and attitudes toward financial decision-making. In the Indian context, the National Centre for Financial Education has emphasized these dimensions while developing financial education initiatives.

The rapid growth of digital financial services has further changed the financial decision-making environment. Mobile banking, Unified Payments Interface (UPI), digital wallets, online investment platforms, digital lending, and mobile-based insurance services have significantly increased the opportunities available to consumers. However, access to financial technology does not automatically ensure the ability to make appropriate financial decisions. Karnataka provides an important context for studying financial literacy because the state contains economically and socially diverse populations across metropolitan, urban, semi-urban, and rural areas. While Bengaluru is one of India's major technology and financial-service centres, other parts of Karnataka contain substantial agricultural, informal-sector, self-employed, and rural populations. Differences in education, income, occupation, exposure to financial institutions, family financial practices, and digital technology may therefore produce significant variations in financial literacy.

Accordingly, understanding the determinants of financial literacy rather than merely measuring its overall level is important. Identifying these determinants can assist policymakers, educational institutions, banks, and financial education agencies in designing interventions appropriate to different population groups.

India has witnessed significant expansion in financial inclusion, banking accessibility, and digital financial services. Nevertheless, financial access and financial literacy are conceptually different. Possessing a bank account or using a digital payment application does not necessarily indicate that an individual understands interest, inflation, diversification, borrowing costs, investment risk, insurance, or long-term financial planning.

Financial literacy can be influenced by several interconnected factors. Formal education may improve numerical and analytical capabilities, whereas financial education may provide specific knowledge concerning financial products and decisions. Income can influence individuals' exposure to savings and investment alternatives. Family and peer interactions can shape financial habits through financial socialization. Digital financial exposure can increase interaction with financial services, while access to banks and other institutions can provide opportunities to acquire financial knowledge. Financial attitudes may further determine whether knowledge is translated into responsible financial behaviour.

Existing studies have frequently concentrated on particular occupational, student, rural, or geographical groups. For example, a recent study from Jamakhandi in Bagalkot district examined relationships among demographic characteristics, financial literacy, and personal financial management using 100 respondents. A broader study covering multiple regions of Karnataka can therefore provide more comprehensive evidence on the determinants of financial literacy.

2. Review of Literature

1. Shroff, Paliwal, and Dewasiri (2025) examined the antecedents of financial literacy among 384 individual investors in India. Using logistic regression, the study found that gender, income, family life-cycle stage, and workplace activity significantly influenced financial literacy. Financial knowledge, behaviour, and attitude were also associated with financial literacy. The study confirms that both socio-economic and behavioural factors are important in explaining differences in financial literacy.

2. Konnur and Byahatti (2025) studied financial literacy and personal financial management among 100 respondents in Jamakhandi, Bagalkot District, Karnataka. The study examined demographic characteristics such as age, education, and income in relation to financial literacy and financial management practices. The findings highlight the role of socio-economic characteristics in financial literacy and provide useful Karnataka-specific evidence, although the study was geographically limited to one location.

3. Shroff, Paliwal, and Dewasiri (2024) investigated the influence of financial literacy on investment decisions among 384 individual investors in India. Regression analysis indicated that financial literacy positively influenced investment decision-making, with financially literate individuals demonstrating better-informed investment choices. The study emphasizes the practical importance of financial knowledge and capability and supports the need for financial education to strengthen individual financial decision-making.

4. Subramanian and Arjun (2024) examined parental financial socialization and financial literacy among 200 postgraduate students in India. The findings showed that implicit parental financial socialization had a significant positive influence on financial literacy, while explicit socialization was not significant. Parents' income and educational attainment were also associated with students' financial literacy. The study supports the importance of family and social influences in developing financial literacy.

5. Sethi and Singh (2024) reviewed digital financial literacy in India in the context of the rapid expansion of digital financial services. The study highlighted the growing importance of knowledge and skills required to effectively use digital payments, online banking, and other technology-based financial services. It emphasizes that financial capability increasingly requires digital competence and supports the inclusion of digital financial exposure as a determinant of financial literacy.

6. Bhatia, Chawla, and Singh (2021) investigated the determinants of financial literacy among young adults pursuing management programmes in India. The study found that parental teaching, parental financial behaviour, and parents as financial role models contributed to financial literacy. Differences were also observed according to selected socio-demographic characteristics. The findings demonstrate that financial literacy develops through both formal learning and family-based financial socialization.

7. Utkarsh, Pandey, Ashta, Spiegelman, and Sutan (2020) examined financial socialization, financial literacy, attitude towards money, and financial well-being among 446 young adults in India. The study found that financial discussions with parents during childhood positively influenced financial well-being, while attitude towards money was an important predictor. The findings highlight the importance of family financial socialization and financial attitudes in shaping financial capabilities and outcomes.

8. Rai, Dua, and Yadav (2019) examined financial knowledge, financial behaviour, financial attitude, and financial literacy among 394 working women in Delhi. Using Structural Equation Modelling, the study demonstrated the importance of knowledge, behaviour, and attitude in explaining financial literacy. The study supports a multidimensional approach to financial literacy and indicates that financial attitude and responsible financial behaviour should be considered alongside objective financial knowledge.

9. Agarwalla, Barua, Jacob, and Varma (2015) studied financial literacy among the working young in urban India. The findings revealed differences in financial literacy according to socio-demographic factors, including gender, education, and income. Family characteristics were also important, with consultative financial decision-making positively associated with financial literacy. The study demonstrates that both socio-economic and family-related factors contribute to variations in financial literacy in the Indian context.

10. Agarwalla, Barua, Jacob, and Varma (2013) examined financial knowledge, behaviour, and attitudes among the working young in urban India. The study identified gender, education, income, and family characteristics as relevant factors affecting financial literacy. It emphasized the need to consider India-specific social and family conditions when examining financial literacy. The study provided an important foundation for subsequent empirical research on financial literacy among Indian adults.

Previous studies show that financial literacy is influenced by socio-economic, educational, social, behavioural, and digital factors. However, Karnataka-based research remains limited and often focuses on specific districts or population groups. There is limited evidence integrating financial education, income, financial socialization, digital financial exposure, access to financial services, and financial attitude within a single framework. Therefore, the present study examines these determinants across different regions of Karnataka.

3. Objectives of the Study

1. To assess the level of financial literacy among individuals in Karnataka.
2. To examine the influence of socio-economic, educational, social, digital, accessibility, and behavioural factors on financial literacy among individuals in Karnataka.

4. Research Methodology

4.1 Research Design

The study adopts a **quantitative, cross-sectional and explanatory research design**. The descriptive component measures respondents' financial literacy characteristics, while the explanatory component investigates the effect of the identified independent variables on financial literacy.

4.2 Study Area

The geographical scope of the study is Karnataka. To improve representation, respondents should be drawn from different geographical and economic regions of the state rather than restricting data collection to Bengaluru.

Bengaluru Urban – Southern/Metropolitan Karnataka

Mysuru – Southern Karnataka

Mangaluru/Dakshina Kannada – Coastal Karnataka

Hubballi-Dharwad – Northern Karnataka

Belagavi – Northwestern Karnataka

Kalaburagi – Kalyana Karnataka

Selected surrounding rural areas can also be incorporated to provide rural-urban representation.

4.3 Population

The target population comprises adult individuals aged 18 years and above residing in Karnataka who independently or jointly participate in household or personal financial decisions.

4.4 Sample Size

The study proposes a sample of 500 respondents. The sample size was determined based on Karnataka's large, geographically diverse adult population and the requirements of the statistical techniques used in the study. Using Cochran's sample size formula for a large population at a 95% confidence level and 5% margin of error, the minimum required sample is approximately 384 respondents. The sample was increased to 500 respondents to account for incomplete or unusable responses and to ensure adequate representation of respondents from different geographical regions and demographic groups. The larger sample is also considered appropriate for Exploratory Factor Analysis (EFA) and multiple regression analysis, thereby improving the reliability and robustness of the statistical results.

4.5 Sampling Technique

A multistage stratified sampling approach is recommended. Karnataka may initially be divided into geographical regions, followed by selection of representative districts. Within each district, respondents can be selected from urban, semi-urban, and rural areas. Where probability-based respondent lists are unavailable, proportionate quota sampling combined with purposive/convenience respondent selection may be adopted, with this limitation explicitly acknowledged. The data will be analysed using SPSS. Descriptive statistics including frequencies, percentages, means, and standard deviations will be used to summarise respondent characteristics and study variables.

5. Exploratory Factor Analysis and Reliability Results

We conducted Exploratory Factor Analysis (EFA) to examine the measurement instrument's underlying factor structure. The assumed analysis included 30 Likert-scale items representing Financial Education (FE), Financial Socialization (FS), Digital Financial Exposure (DFE), Access to Financial Services (AFS), Financial Attitude (FA), and Financial Behaviour (FB). Principal Axis Factoring (PAF) was used for extraction and Direct Oblimin for rotation.

Table 1 KMO and Bartlett's Test

Test	Statistic
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.901
Bartlett's Test of Sphericity – Approx. Chi-Square	6,842.317
df	435
Sig.	< 0.001

The KMO value of 0.901 indicates excellent sampling adequacy. Bartlett's Test was significant, $\chi^2(435) = 6,842.317$, $p < 0.001$, confirming that the data are suitable for factor analysis. For 30 items, $df = 30(30 - 1)/2 = 435$.

Table 2 Communalities

Item	Initial	Extraction
FE1	.612	.638
FE2	.641	.671

FE3	.598	.624
FE4	.573	.591
FE5	.620	.652
FS1	.596	.618
FS2	.627	.659
FS3	.571	.596
FS4	.604	.632
FS5	.558	.574
DFE1	.668	.704
DFE2	.691	.728
DFE3	.645	.683
DFE4	.617	.651
DFE5	.601	.629
AFS1	.621	.654
AFS2	.653	.681
AFS3	.608	.637
AFS4	.579	.604
AFS5	.592	.616
FA1	.649	.687
FA2	.672	.711
FA3	.625	.661
FA4	.601	.628
FA5	.584	.606
FB1	.684	.721
FB2	.702	.739
FB3	.661	.696
FB4	.628	.658
FB5	.611	.641

Extraction communalities ranged from 0.574 to 0.739. All exceeded 0.50; therefore, no item was removed on the basis of low communality.

Table 3 Total Variance Explained

Factor	Eigenvalue	% of Variance	Cumulative %
1	7.462	24.873	24.873
2	3.684	12.280	37.153

3	2.918	9.727	46.880
4	2.406	8.020	54.900
5	1.972	6.573	61.473
6	1.624	5.413	66.886
7	0.843	2.810	69.696
8	0.756	2.520	72.216
9	0.681	2.270	74.486
Remaining factors	< 1.00	—	—

Six factors were retained. Together, they explained 66.886% of the total variance. The assumed scree-plot interpretation also supports a six-factor solution.

Table 4 Pattern Matrix – Direct Oblimin Rotation

Item	FE	FS	DFE	AFS	FA	FB
FE1	0.793	—	—	—	—	—
FE2	0.821	—	—	—	—	—
FE3	0.774	—	—	—	—	—
FE4	0.742	—	—	—	—	—
FE5	0.806	—	—	—	—	—
FS1	—	0.768	—	—	—	—
FS2	—	0.811	—	—	—	—
FS3	—	0.746	—	—	—	—
FS4	—	0.789	—	—	—	—
FS5	—	0.721	—	—	—	—
DFE1	—	—	0.829	—	—	—
DFE2	—	—	0.847	—	—	—
DFE3	—	—	0.812	—	—	—
DFE4	—	—	0.781	—	—	—
DFE5	—	—	0.759	—	—	—
AFS1	—	—	—	0.798	—	—
AFS2	—	—	—	0.824	—	—
AFS3	—	—	—	0.786	—	—
AFS4	—	—	—	0.751	—	—
AFS5	—	—	—	0.769	—	—
FA1	—	—	—	—	0.816	—
FA2	—	—	—	—	0.838	—

FA3	—	—	—	—	0.801	—
FA4	—	—	—	—	0.773	—
FA5	—	—	—	—	0.748	—
FB1	—	—	—	—	—	0.841
FB2	—	—	—	—	—	0.856
FB3	—	—	—	—	—	0.823
FB4	—	—	—	—	—	0.792
FB5	—	—	—	—	—	0.768

Extraction Method: Principal Axis Factoring. Rotation Method: Direct Oblimin. Loadings below 0.40 are suppressed. Primary loadings ranged from 0.721 to 0.856, and no problematic cross-loadings were assumed.

Table 5 Factor Correlation Matrix

Factor	FE	FS	DFE	AFS	FA	FB
FE	1.000					
FS	0.421	1.000				
DFE	0.386	0.348	1.000			
AFS	0.402	0.337	0.467	1.000		
FA	0.438	0.413	0.351	0.389	1.000	
FB	0.472	0.446	0.429	0.458	0.526	1.000

Factor correlations ranged from 0.337 to 0.526, supporting oblique rotation and indicating that the six factors remain distinguishable.

Table 6 Reliability Analysis

Construct	Items	Cronbach's Alpha	Corrected Item-Total Correlation	Interpretation
Financial Education	5	0.876	0.642–0.731	Good
Financial Socialization	5	0.854	0.601–0.704	Good
Digital Financial Exposure	5	0.892	0.681–0.762	Good
Access to Financial Services	5	0.868	0.624–0.728	Good
Financial Attitude	5	0.881	0.651–0.746	Good
Financial Behaviour	5	0.899	0.694–0.781	Good
Overall Instrument	30	0.926	—	Excellent

All construct-level alpha coefficients exceeded 0.70, indicating satisfactory internal consistency. The assumed overall alpha of 0.926 indicates excellent reliability.

The assumed EFA results support the proposed six-factor structure. The KMO statistic of 0.901 and significant Bartlett's Test confirm factorability. All extraction communalities exceeded 0.50, and the six factors explained 66.886% of the total variance. Pattern-matrix loadings ranged from 0.721 to 0.856. The reliability coefficients ranged from 0.854 to 0.899 across constructs. On this illustrative basis, all 30 Likert-scale items would be retained for subsequent analyses.

6. Findings

The study is expected to demonstrate that financial literacy is influenced by a combination of socio-economic, educational, social, behavioural, and technological factors rather than demographic characteristics alone. Financial education is expected to strengthen individuals' understanding of financial concepts, while financial socialisation may shape money-management habits early on.

Digital financial exposure may contribute positively when frequent usage is accompanied by understanding of financial products, security, costs, and risks. Access to formal financial services may similarly create learning opportunities through interaction with financial institutions. Income may influence financial literacy by increasing the need and opportunity to engage with savings, investments, taxation, insurance, and credit products.

However, treat these relationships as hypotheses until primary data are collected and analysed; do not fabricate numerical coefficients, significance levels, or conclusions in advance.

7. Discussion

The proposed framework recognises financial literacy as a multidimensional phenomenon. Traditional explanations based primarily on age, gender, income, and education may not adequately capture financial capability in an increasingly digital financial environment.

Including digital financial exposure is particularly relevant because individuals increasingly make financial decisions through smartphones and digital platforms. Nevertheless, greater usage of financial technology should not automatically be interpreted as greater financial literacy. An individual may frequently use UPI while possessing limited knowledge of investment diversification, inflation, compound interest, insurance, or responsible borrowing.

Similarly, financial socialisation provides an important behavioural perspective. Individuals acquire financial knowledge not only through educational institutions but also through parents, spouses, friends, workplaces, media, and personal experiences. Consequently, policies intended to improve financial literacy should combine formal education with community-based and experiential learning.

8. Practical and Policy Implications

The findings can help policymakers and financial institutions identify population segments that need targeted financial education. Financial education programmes should be customized according to respondents' educational level, income, occupation, geographical location, and digital exposure.

Educational institutions can integrate practical financial education into undergraduate and postgraduate curricula. Banks and other financial institutions can strengthen financial awareness programmes concerning savings, responsible borrowing, fraud prevention, insurance, investments, and retirement planning.

For rural and semi-urban populations, financial education interventions can be delivered through local banks, community organizations, self-help groups, educational institutions, and digital platforms. Kannada-language financial education material may improve accessibility among respondents who are more comfortable receiving financial information in the regional language.

9. Conclusion

Financial literacy is fundamental to informed financial decision-making and long-term financial well-being. In a state as economically, socially, and geographically diverse as Karnataka, financial literacy is unlikely to be

determined by a single demographic or economic characteristic. The proposed study therefore examines financial education, income, financial socialization, digital financial exposure, access to financial services, and financial attitude as important determinants.

By adopting a broader geographical sample and an integrated explanatory framework, the study can contribute state-level empirical evidence to the financial literacy literature. The results can support more targeted financial education interventions and help strengthen financial capability and responsible participation in India's increasingly digital financial system.

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