Original Research Article

Financial Literacy in Kerala: An Analysis Using the OECD Framework

ABSTRACT

Aims: To assess financial literacy levels in Kerala, India, using the OECD framework and identify gaps in financial knowledge, behavior, and attitudes.

Study Design: Cross-sectional quantitative survey.

Place and Duration of Study: Conducted in Kerala, India across 14 districts from June to November 2024.

Methodology: A sample of 125 respondents, selected using stratified random sampling, was surveyed. Financial literacy was measured based on the OECD framework's three dimensions: knowledge, behavior, and attitudes. Statistical analysis included descriptive statistics and logistic regression to identify significant predictors.

Results: 84% of respondents were moderately literate, 12% highly literate, and 4% financially illiterate. Gaps were identified in understanding compound interest and risk diversification, and in adopting long-term financial planning and budgeting behaviors.

Conclusion: Education level significantly influenced financial literacy. Policymakers should emphasize integrating financial literacy programs into education and creating community-based initiatives.

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1. INTRODUCTION

Financial literacyas defined by the Organization for Economic Cooperation and Development (OECD), encompasses the knowledge, skills, attitudes, and behaviors necessary to make informed and effective financial decisions that enhance individual financial well-being. Financial literacy is increasingly recognized as a critical component of financial inclusion, which refers to ensuring that individuals have access to affordable financial services and the knowledge to use these services effectively. As financial markets and services become more complex, the need for financial literacy has gained heightened importance globally, especially in emerging economies like India. It plays a pivotal role in improving the financial health of individuals, enabling them to manage their finances, make prudent investment choices, avoid excessive debt, and plan for retirement. Furthermore, financial literacy promotes responsible economic behavior, which can contribute to broader socio-economic development (OECD, 2020).

In India, the pursuit of financial literacy has become particularly pressing. The country, with a population exceeding 1.4 billion, faces significant challenges in achieving financial inclusion. According to the National Centre for Financial Education (NCFE) Financial Literacy and Inclusion Survey 2019, India’s national financial literacy rate stands at 27%, which is far below the benchmark of 56% observed in some leading states like Goa and Chandigarh (NCFE, 2019). Despite India's growing economy, nearly 75% of the population lacks basic financial literacy, limiting their ability to participate effectively in the financial system. The same survey noted that Kerala, a state renowned for its high literacy rate, faces similar challenges, with a financial literacy rate of only 39%. This is marginally better than the national average but still significantly lower than the top-performing states, highlighting that high general literacy does not necessarily translate into robust financial literacy.

Kerala, located in the southern part of India, has made remarkable strides in education, health, and economic development. The state's literacy rate is one of the highest in India, at over 90%, compared to the national average of around 74% (Census of India, 2011). However, while Kerala's education system has contributed to a highly literate population, financial literacy remains a relatively unexplored area. The gap between general literacy and financial literacy in Kerala poses a challenge to policymakers, who aim to ensure that citizens can not only read and write but also make informed financial decisions. The disparity suggests that knowledge and awareness of financial concepts, such as budgeting, investing, and managing debt, are still insufficient in helping individuals achieve long-term financial security.

Several studies have examined the financial literacy levels in various parts of India, revealing regional disparities and identifying the underlying causes for low financial literacy rates. A study by Atkinson and Messy (2012) showed that countries with higher levels of education tend to exhibit higher financial literacy rates, but even in such countries, there is often a significant gap between general and financial literacy. This gap is particularly pronounced in India, where financial literacy programs are often limited to urban areas, leaving rural populations and those from lower socio-economic backgrounds vulnerable to financial exclusion. Similarly, the Financial Literacy Foundation (2013) noted that while Indian consumers have become increasingly aware of financial products, they still lack the ability to understand the implications of their choices, particularly regarding investment decisions, loans, and retirement planning.

The OECD framework for financial literacy, adopted globally in 2013, provides a comprehensive approach for evaluating financial literacy levels. This framework divides financial literacy into three main components: financial knowledge, financial behavior, and financial attitudes. Financial knowledge pertains to the understanding of basic financial concepts, such as interest rates, inflation, risk, and return, among others. Financial behavior refers to the practical application of financial knowledge, including budgeting, saving, investing, and debt management. Finally, financial attitudes reflect individuals' beliefs and preferences related to financial decisions, particularly regarding spending versus saving, short-term versus long-term goals, and risk tolerance.

Previous studies that have applied the OECD framework have shown that individuals with higher financial knowledge are more likely to engage in positive financial behaviors and have more favorable financial attitudes. For instance, Lusardi and Mitchell (2014) demonstrated that financial literacy is positively correlated with better retirement planning and more responsible debt management. Similarly, in the context of India, a study by Banerjee et al. (2018) emphasized that financial literacy plays a crucial role in helping individuals make informed investment decisions, avoid debt traps, and improve their overall financial well-being. However, such studies also highlighted significant regional disparities, with financial literacy levels being lower in rural areas compared to urban centers.

In Kerala, although there has been some progress in financial literacy education, the lack of comprehensive studies on the subject has led to a limited understanding of how individuals in the state navigate their financial decisions. The few existing studies, such as the NCFE survey, have only scratched the surface of this complex issue, indicating that further research is needed to explore the financial knowledge, behaviors, and attitudes of people in Kerala more thoroughly. This research is crucial because it will inform policymakers and educational institutions on the current state of financial literacy and the steps needed to address gaps and improve financial education programs in the state.

The relevance of this study cannot be overstated, especially considering Kerala's socio-economic environment. The state boasts high levels of education and human development indicators, yet it faces rising concerns about financial vulnerability among its residents. One of the main reasons for this is the lack of financial literacy programs targeted at the local population. While financial products and services are widely available, there is little emphasis on equipping the public with the skills to effectively manage them. In Kerala, many residents still rely on informal financial systems, such as savings with friends and family, rather than using formal banking products. This reliance on informal systems can lead to inefficient financial practices and hinder overall financial inclusion.Moreover, Kerala's aging population presents another challenge. As the state's demographic profile shifts, the need for individuals to make informed retirement and investment decisions becomes even more

critical. A lack of knowledge regarding pension schemes, healthcare savings, and long-term investments could exacerbate the financial insecurity faced by many elderly residents.

This study is aimed at evaluating the financial literacy levels of Kerala's population using the OECD framework to assess the three main componentsknowledge, behavior, and attitude. By doing so, it seeks to identify specific areas where Kerala's residents need further education and support. The study also intends to investigate the factors contributing to the observed gaps in financial literacy and provide actionable insights that can inform future financial education initiatives.

There is an increasing global emphasis on improving financial literacy as part of the broader agenda for sustainable economic development. Under the G20 presidency, India has committed to advancing financial inclusion and literacy as a way to enhance economic resilience, reduce inequality, and encourage sustainable growth. The G20's focus on financial literacy is embedded in the collective vision of inclusive economic prosperity, with financial education playing a crucial role in enabling citizens to make informed decisions that promote long-term financial stability. The G20 agenda recognizes the need to enhance financial literacy to bridge the gaps between different demographic and socio-economic groups, especially in developing countries. India's role in the G20 presidency provides a unique opportunity to align the country's financial literacy initiatives with international standards, enhancing a more inclusive and equitable financial system both within India and globally.This broader international perspective underscores the importance of the study at hand, as improving financial literacy in Kerala aligns with both the Viksit Bharat vision and global efforts promoted through the G20. By enhancing financial literacy, Kerala can contribute to India's overall progress in financial inclusion and support the G20's objectives in ensuring that financial systems are accessible and beneficial to all, especially the underserved and vulnerable populations.

The present study aims to fill the gap in the literature on financial literacy in Kerala and contribute to the development of more targeted and effective financial literacy programs. The research will shed light on the current financial literacy levels in the state and offer recommendations for improving financial education, which could have far-reaching implications for financial inclusion and socio-economic development. By aligning with the Viksit Bharat vision and G20 financial literacy objectives, the study will contribute to the broader goal of achieving a financially inclusive and resilient India.

2. MATERIAL& METHODS

The research methodology for this study was designed to evaluate financial literacy levels among residents of Kerala, India, using the globally recognized OECD framework. This section outlines the steps involved in the study, including the research design, sampling method, data collection process, and the analysis techniques used to derive meaningful insights.

2.1 Research Design

This study adopts a quantitative research design, with a structured questionnaire being the primary data collection tool. The choice of a quantitative design allows for the systematic measurement of financial literacy across various components—knowledge, behavior, and attitude enabling objective comparisons within the study population. A well-structured questionnaire was developed, incorporating questions aligned with the OECD financial literacy framework. The instrument aimed to gather data on respondents' understanding of financial concepts (financial knowledge), their financial practices (financial behavior), and their attitudes towards money management (financial attitude). These three dimensions were measured using a set of carefully crafted questions designed to assess the specific aspects of financial literacy defined by the OECD.

The quantitative approach is particularly suitable for this study, as it allows for the collection of large amounts of data from a relatively diverse sample of respondents. The results can be generalized to a broader population, offering insights into regional financial literacy levels in Kerala. The study also aims to provide comparative data that can be used in conjunction with international and national financial literacy benchmarks, enabling policymakers to craft evidence-based interventions that address gaps in financial education.

2.1.1 Sampling Method

The study employed a stratified random sampling technique to ensure that the sample was representative of the diverse population of Kerala. Stratified sampling is an effective method when the population is heterogeneous, as it divides the population into distinct subgroups or strata before randomly selecting respondents from each stratum. In the context of this study, the population of Kerala was divided into strata based on demographic factors such as gender, age, education level, and occupation, which are known to influence financial literacy levels. This ensures that the final sample accurately reflects the broader demographic distribution of the population, minimizing the chances of bias. The strata selected for this study were as follows:

- Gender: Male and Female respondents were selected to ensure gender inclusivity.
- Age: Different age groups were represented, including young adults (18-30 years), middle-aged adults (31-50 years), and older adults (51+ years), as financial literacy varies with life stage and responsibilities.
- Education Level: Respondents with varied educational backgrounds, including individuals with primary, secondary, and higher education levels, were included to understand how education influences financial literacy.
- Occupation: The sample was stratified to include both formal and informal sector workers, self-employed individuals, and homemakers, as financial behavior and knowledge can differ across occupation types.

The respondents were selected randomly from each of these strata, ensuring that the sample was proportional to the overall population structure of Kerala. This approach enhanced the external validity of the findings, allowing for a more accurate representation of financial literacy levels across different socio-demographic groups within the state.

Stratified random sampling is a method used to ensure that specific subgroups, or strata, within a population are adequately represented in the sample. This approach involves dividing the population into distinct, non-overlapping categories based on key characteristics, such as age, gender, education level, or geographical location. Once the strata are identified, a random sample is taken from each subgroup. The size of the sample from each stratum can be proportional to the size of that stratum in the population, or it can be equal across strata, depending on the research design.

In the context of this study on financial literacy in Kerala, stratified random sampling was employed to capture a diverse range of demographic factors, ensuring that the sample was representative of the state's various socio-economic groups. By categorizing respondents based on age, gender, education level, and occupation, the method allowed for a more accurate assessment of financial literacy across different segments of the population. This approach is particularly useful in studies where researchers want to ensure that all subgroups are properly represented, thus minimizing the risk of bias and increasing the generalizability of the findings.

The stratified random sampling method is often preferred in research involving heterogeneous populations because it improves the precision of estimates for each subgroup (Cochran, 1977). By providing an in-depth representation of various strata within the population, this method increases the reliability of the results and ensures that findings are not skewed by underrepresentation of certain groups.

Data was collected using a structured questionnaire, which was administered to respondents in both face-to-face and online formats to ensure broader accessibility. The questionnaire was designed to measure financial literacy across the three dimensions of financial knowledge, behavior, and attitude, as outlined in the OECD framework. It consisted of 22 questions in total, with each question corresponding to one of the three components:

- Financial Knowledge: The questionnaire assessed respondents' understanding of basic financial concepts such as inflation, interest rates, risk, and budgeting. Questions in this section tested both general financial knowledge and the application of such knowledge in everyday life. For example, one of the questions was, "What happens to purchasing power if inflation increases?" with options reflecting different levels of understanding.

- Financial Behavior: This section assessed how individuals apply financial knowledge in their day-to-day lives. Respondents were asked questions regarding their financial habits, such as budgeting, saving, debt management, and investment practices. For instance, one of the questions was, “Do you have a household budget, and are you responsible for managing it?”
- Financial Attitude: The attitudes section gauged individuals' perceptions toward financial decisions, savings, and spending. This dimension aimed to understand the psychological aspects of financial decision-making, such as the tendency to prioritize short-term gratification over long-term financial security. An example question in this section was, “I find it more satisfying to spend money than to save it for the future.”

Respondents were given a maximum composite score of 22 points, with 8 points allocated for financial knowledge, 9 points for financial behavior, and 5 points for financial attitude. The scoring system allowed for a detailed assessment of the financial literacy levels across these three dimensions, providing insight into which areas require greater attention.

The data collection process was conducted over a span of six months. To ensure the reliability of the data, the questionnaire was pre-tested on a smaller sample before it was distributed to the full sample. This allowed for any ambiguities in the questions to be identified and rectified. Additionally, the researchers ensured that ethical considerations were met, including obtaining informed consent from all respondents and guaranteeing the confidentiality of the data collected.

2.1.2 Sample Size

A total of 125 respondents were surveyed for this study. The sample size was determined based on the principle of statistical significance, aiming for a sufficient sample to allow for generalizable conclusions within the context of Kerala’s population. The sample size ensures adequate representation from all the demographic groups within the selected strata, and the random selection from each stratum increases the reliability and robustness of the findings. This sample size is also in line with similar financial literacy studies, where smaller samples are often used in regional studies to capture localized trends.

2.1.3 Data Collection

A structured questionnaire was administered to 125 respondents from all the districts in Kerala, including Thiruvananthapuram, Ernakulam, Kozhikode, and Kottayam, selected to represent a diverse socio-economic cross-section of the state. To ensure a representative sample, a stratified random sampling method was employed. This approach allowed for the categorization of respondents based on key demographic factors such as gender, age, education level, and occupation, ensuring that the sample was reflective of the broader population. The respondents were selected from both urban and rural areas to capture potential regional variations in financial literacy levels.

The survey responses were scored according to the OECD Financial Literacy Framework, with a maximum composite financial literacy score of 22. The results were then analyzed to uncover variations in literacy levels across different demographic groups. The inclusion of multiple districts within Kerala helped to provide a nuanced understanding of how financial literacy varies across the state’s diverse population, factoring in differences in educational access, economic activity, and cultural attitudes toward finance.

2.2 Data Analysis

The data collected from the surveys were analyzed using both descriptive and inferential statistics.

Descriptive Statistics: Frequencies, means, and percentages were used to summarize the financial literacy levels within the sample. This allowed the researchers to calculate the proportion of respondents in each financial literacy category and provided a broad overview of financial literacy levels in Kerala.

Inferential Statistics: The primary inferential analysis method used was logistic regression (logit) analysis. This model was chosen due to its ability to predict the likelihood of a respondent being financially literate based on socio-demographic factors. The dependent variable in the logistic regression model was financial literacy, which was a binary outcome (1 for financially literate, 0 for financially illiterate).

2.2.1 Logit Model Selection

To understand the factors influencing financial literacy in Kerala, a logistic regression (logit) model was chosen due to its ability to predict the probability of a categorical dependent variable. In this study, the dependent variable is binary, where financial literacy is categorized into two outcomes: financially literate and financially illiterate. The logistic regression model is appropriate because it estimates the likelihood of an individual being financially literate based on independent variables such as gender, age, education level, and occupation, which are hypothesized to influence financial literacy (Hosmer, Lemeshow, & Sturdivant, 2013).

The logit model is particularly suitable when the dependent variable is binary (coded as 1 for financially literate and 0 for financially illiterate). By applying a logistic function, we can model the probability of financial literacy as a function of various demographic and socio-economic factors.

2.2.2 Logit Model Specification

The logistic regression model used in this study is specified as follows:

$$\text{logit}(P(Y=1)) = \ln(P(Y=1) / (1 - P(Y=1))) = \beta0 + \beta1 * \text{Gender} + \beta2 * \text{Age} + \beta3 * \text{Education} + \beta4 * \text{Occupation}$$

Where:

- P(Y=1) is the probability of an individual being financially literate.
- β0 is the intercept term.
- β1, β2, β3, β4 are the coefficients for the explanatory variables (Gender, Age, Education, and Occupation).
- Gender is coded as a binary variable (0 for female and 1 for male).
- Age is coded as a continuous variable representing the respondent's age.
- Education is coded as an ordinal variable (1 for secondary, 2 for senior secondary, 3 for diploma holders, 4 for graduates, and 5 for postgraduates).
- Occupation is categorized into distinct categories: student, employed, self-employed, and unemployed.

The dependent variable, financial literacy, was defined as binary. A respondent was considered financially literate if they scored above the median score on the OECD financial literacy scale, otherwise classified as financially illiterate. The measurement of financial literacy was based on their understanding of financial concepts, behaviors, and attitudes, as described in the OECD framework.

The primary inferential method used in this study was the logistic regression (logit) model. This model was used to assess the likelihood of an individual being financially literate based on their demographic profile. The logistic regression model estimated the effect of variables such as gender, age, education, and occupation on the probability of being financially literate. Statistical significance of the variables was determined using Wald tests, with a significance level of 5% ($p < 0.05$). This approach allowed for a more precise understanding of how each variable influences financial literacy.

Although the study uses a stratified random sampling technique to ensure representation, there are limitations to this methodology. First, the study is limited to a sample size of 125 respondents, which may not fully represent the entire population of Kerala. Secondly, the use of a binary classification for financial literacy oversimplifies the complex nature of financial literacy, which can vary across a spectrum of understanding.

3. RESULTS AND DISCUSSION

The section presents an in-depth analysis of the findings derived from the study, highlighting the key factors influencing financial literacy in Kerala. This section integrates statistical outcomes with relevant socio-demographic insights, providing a comprehensive understanding of the variables that contribute to financial literacy. Using a combination of descriptive and inferential statistical tools, the results are contextualized within the framework of existing literature, enabling comparisons with prior studies while identifying unique patterns specific to the population under study. By examining the role of gender, age, education, and occupation, this section delves into understanding the complex dynamics shaping financial literacy and offers critical insights to inform policy and intervention strategies.

Table 1. Financial Literacy Levels in Kerala

Financial Literacy Level	**Percentage (%)**
Highly Literate	12%
Moderately Literate	84%
Financially Illiterate	4%

The financial literacy levels in Kerala, as revealed by the study, reflect a mixed but promising picture. As discussed in Table 1, A significant proportion of the respondents (84%) exhibited moderate financial literacy, while 12% were highly literate, and 4% were financially illiterate. This distribution indicates that while Kerala is relatively more financially literate compared to many other regions in India, there are still gaps that need addressing, especially in areas such as financial behavior and attitudes. These findings align with similar studies in India and globally that emphasize the importance of both financial knowledge and behavior for improving financial literacy (Lusardi & Mitchell, 2014; NCFE, 2019).

3.1 Financial Knowledge

Table 2. Financial knowledge among the sample respondents

	Division	Time Value of money	Concept of interest	Simple Interest	Compound Interest	Risk and Return	Inflation	Risk Diversification
Number of correct responses	113	118	100	84	107	108	63	113
Percentage	**90%**	**94%**	**80%**	**67%**	**86%**	**86%**	**50%**	**90%**

Financial knowledge, as assessed by the survey Table 2, showed that respondents had a strong grasp of basic financial concepts. The majority of respondents were able to correctly answer questions related to fundamental topics such as division, time value of money, and simple interest. For example, 90% of respondents demonstrated understanding of simple financial arithmetic. However, the study revealed a noticeable gap in more complex financial concepts such as compound interest and risk diversification. Only 67% of the respondents correctly understood compound interest, and a mere 50% grasped the concept of risk diversification. This finding is consistent with global trends, where studies have shown that while individuals tend to perform well in basic financial knowledge, they often struggle with advanced concepts (OECD, 2013; Muir & Haws, 2021). The understanding of compound interest and diversification is crucial, as it influences individuals' long-

term financial planning, investment choices, and retirement savings. Therefore, addressing these gaps in knowledge could have significant long-term benefits for improving financial decision-making in Kerala.

3.2 Financial Behaviour

Table 3. Financial behavior among the people of Kerala

	Active Saving	Budgeting	Considered Purchases	Pay Bills on Time	Watch Financial Affairs	Financial Product Choice (Info Gathered)	Financial Product Choice (Independent Advice)	Handling Income Shortfall (No Credit)	Setting financial goals
Number of appropriate responses	103	88	120	105	112	113	106	97	106
Percentage	82%	70%	96%	84%	90%	90%	85%	78%	85%

The financial behavior of respondents (shown in table 3) also showed promising results, though areas for improvement were identified. A high percentage of respondents exhibited positive financial behaviors such as making considered purchases, saving actively, and paying bills on time. For instance, 96% of respondents reported making considered purchases, and 82% actively saved and 84% paid their bills on time. These behaviors are crucial indicators of financial well-being and suggest that the respondents are generally managing their finances prudently. However, a concerning gap was observed in the area of budgeting, where only 70% of respondents practiced effective financial planning. This finding aligns with studies that highlight budgeting as one of the most significant behaviors that contribute to financial well-being (Lusardi et al., 2011; Sharma & Krishnan, 2019). Financial planning is often the key to long-term financial security, and its absence could lead to issues like inadequate savings and poor investment decisions in the future. There is thus a need for focused interventions to improve budgeting skills, which could be addressed through financial literacy programs targeting this particular aspect of financial behavior.

3.3 Financial Attitude

T**able 4a & 4b. Financial attitude in Numbers and in percentage**

In Numbers

	More satisfying to spend than save it for the long term	Tend to live for today and let tomorrow take care of itself	Money is there to be spent
Strongly Disagree	30	35	10
Disagree	66	50	36

In Percentage

	More satisfying to spend than save it for the long term	Tend to live for today and let tomorrow take care of itself	Money is there to be spent
Strongly Disagree	**24%**	**28%**	**8%**
Disagree	**53%**	**40%**	**29%**

Neutral	15	20	39
Agree	9	15	40
Strongly Agree	5	5	0

Neutral	**12%**	**16%**	**31%**
Agree	**7%**	**12%**	**32%**
Strongly Agree	**4%**	**4%**	**0%**

Financial attitudes (shown in Table 4a &b) displayed a mixed trend, with a substantial portion of respondents expressing preferences for long-term financial security, while others exhibited tendencies toward short-term gratification. A notable 24% of respondents strongly disagreed with the notion that spending is more satisfying than saving, indicating a favorable attitude toward saving and long-term financial goals. However, 23% of respondents displayed neutral or positive attitudes toward spending, signaling the need for greater emphasis on promoting saving-oriented behaviors. These findings are consistent with other research that suggests financial attitudes strongly influence individuals' saving behaviors and overall financial decision-making (Lusardi et al., 2011; Robb & Woodyard, 2011). Interventions aimed at reshaping financial attitudes could be a critical factor in encouraging a more savings-oriented culture and enhancing better financial habits among the population.

3.4 Demographics and Insights

Table 5. Demographic insights of the sample

Demographic Variable	Category	Percentage (%)	Number of Respondents (N = 125)
Gender	Male	56%	70
	Female	44%	55
Age Groups	18-24 years	16%	20
	25-49 years	44%	55
	50-64 years	28%	35
	65-80 years	12%	15
Education Levels	Secondary education	24%	30
	Senior secondary education	8%	10
	Diploma holders	16%	20
	Graduates	20%	25
	Postgraduates	32%	40

In terms of demographics, the study found that younger respondents, particularly those aged 18-24 years, performed better in financial knowledge compared to older age groups. This finding suggests that there is a generational gap in financial literacy, with younger individuals more likely to be exposed to modern financial education and tools such as online banking, digital financial management apps, and social media campaigns. This trend has been observed in other studies, where younger

individuals are typically more adept at using technology for financial management (Chen & Volpe, 2002). Conversely, older respondents, especially those aged 50-64 years, showed lower levels of financial knowledge and weaker financial behaviors. This demographic discrepancy highlights the need for targeted financial education programs tailored to different age groups and learning preferences, especially for older individuals who may have limited exposure to digital financial tools.

While Kerala has made significant strides in improving financial literacy, there are still critical gaps in advanced financial knowledge and behavior. These gaps, particularly in areas like budgeting and financial planning, should be prioritized by policymakers and educators in Kerala. Tailored interventions that address both knowledge gaps and behavioral deficiencies could contribute to a more financially literate population, thereby improving financial inclusion and individual well-being in the state. Despite Kerala's high general literacy rate, the study revealed gaps in financial literacy, particularly in advanced financial concepts and behaviors.

3.5 Factors affecting Financial Literacy in Kerala: A Logistic regression analysis

The logistic regression results indicate several key findings (Table 6) regarding the relationship between demographic variables and financial literacy in Kerala. The model included four explanatory variables: gender, age, education level, and occupation. Below is a summary of the logistic regression coefficients and statistical significance for each of the predictors.

Table 6. Factors affecting financial literacy in Kerala

Variable	Coefficient (β)	Standard Error	Wald Chi-Square	p-value
Intercept	-1.456	0.742	3.912	0.048
Gender (1 = Male)	0.276	0.456	0.378	0.538
Age	0.023	0.021	1.149	0.285
Education Level	0.813	0.353	5.457	0.02
Occupation	-0.146	0.421	0.12	0.729

3.5.1 Intercept

The intercept term of -1.456 is statistically significant (p = 0.048), suggesting that the baseline log-odds of being financially literate are negative when all other variables are set to zero. This negative intercept implies that, in the absence of demographic influences, individuals in Kerala are less likely to be financially literate. This aligns with findings from previous studies that have noted a general lack of financial literacy among populations in developing regions, including India (OECD, 2015).

3.5.2 Gender

The coefficient for gender is 0.276, but it is not statistically significant (p = 0.538), suggesting that gender does not play a significant role in determining financial literacy in this study. This result contradicts some studies which found that men typically have higher financial literacy scores compared to women (Lusardi et al., 2010). However, this study's findings are consistent with the OECD (2015), which reported that gender differences in financial literacy may not always be statistically significant when accounting for education and other socio-economic factors. In Kerala, factors such as education and occupation may be more influential in shaping financial literacy than gender alone.

3.5.3 Age

The coefficient for age is 0.023, indicating a positive relationship between age and financial literacy, although this relationship is not statistically significant (p = 0.285). This result suggests that, while older individuals might have had more opportunities to acquire financial knowledge over time, the effect of age on financial literacy in Kerala is not substantial enough to be deemed significant in this sample. Previous studies, such as Lusardi and Mitchell (2007), suggest that older individuals tend to have better financial literacy due to accumulated life experiences, but this study finds that age alone does not significantly impact financial literacy in Kerala.

3.5.4 Education Level

The education level variable shows a positive and statistically significant coefficient (β = 0.813, p = 0.02), indicating that individuals with higher education levels are more likely to be financially literate. This finding is consistent with extensive literature showing a strong correlation between educational attainment and financial literacy (Lusardi & Mitchell, 2011; OECD, 2015). Education is often cited as one of the most important determinants of financial knowledge, as individuals with higher education levels are better equipped to understand financial concepts such as budgeting, saving, and investing. In Kerala, where education is highly valued, this finding underscores the importance of enhancing financial education across various educational institutions.

3.5.5 Occupation

The coefficient for occupation is -0.146, and it is not statistically significant (p = 0.729), indicating that occupation does not have a significant effect on financial literacy in this study. While some studies suggest that certain occupations, particularly those in the financial sector, are associated with higher levels of financial literacy (Lusardi et al., 2010), this study did not find evidence to support such a relationship. It is possible that in Kerala, financial literacy is influenced more by educational background than by one's occupation. The broad categorization of occupations in this study may also have diluted any potential effects, suggesting that more detailed occupational classifications could reveal stronger associations.

3.6 Discussion

The findings of this study highlight the significant role of education in determining financial literacy in Kerala. The positive and statistically significant relationship between education level and financial literacy aligns with existing research that emphasizes the importance of education in shaping individuals' financial knowledge (Lusardi & Mitchell, 2007; Lusardi et al., 2010). As education provides individuals with the tools to understand and manage their finances, promoting financial literacy through educational reforms and targeted programs is essential.

The lack of statistically significant results for gender and age in this study suggests that these factors, when considered alongside education and occupation, do not play a decisive role in determining financial literacy. This could indicate that financial literacy in Kerala is more dependent on access to quality education than on demographic characteristics such as gender or age. However, the non-significant result for occupation raises important questions about the relationship between work-related experiences and financial knowledge. It may be the case that occupational factors such as income or job-related financial training have a more significant impact on financial literacy than occupation alone.

These results suggest that interventions aimed at improving financial literacy in Kerala should focus on educational programs that cater to individuals with lower levels of formal education. Financial literacy programs can be integrated into school curricula, as well as adult education initiatives, to ensure that individuals of all ages and backgrounds have access to financial education. Financial literacy should not be confined to traditional educational settings; community-based programs that reach a broader audience may also be necessary to bridge the financial literacy gap in Kerala.

3.6.1 Policy implications

This study has important implications for policy and future research. Policymakers in Kerala can use these findings to develop targeted financial literacy programs that emphasize education, especially for those with lower levels of formal education. Public awareness campaigns could also be designed to highlight the importance of financial education and provide resources for individuals to improve their financial knowledge. Future research could explore the role of specific financial behaviors and attitudes, as well as investigate the potential impact of digital financial tools and media in enhancing financial literacy.

4. CONCLUSION

This study aimed to examine the financial literacy levels among residents of Kerala, India, with a particular focus on understanding the socio-demographic factors influencing financial literacy. Using the OECD financial literacy framework, the research employed a logistic regression model to analyze the impact of variables such as gender, age, education, and occupation on financial literacy. The findings suggest that educational attainment significantly influences financial literacy, with individuals holding higher levels of education, particularly postgraduate degrees, being more likely to demonstrate higher financial literacy.

The results also highlighted that gender, age, and occupation had less substantial or statistically significant impacts on financial literacy levels. Specifically, gender and occupation did not show a significant correlation with financial literacy, which contrasts with findings from other studies that suggest male respondents typically exhibit higher financial literacy (Lusardi & Mitchell, 2011; van Rooij et al., 2011). Similarly, while age could have an impact on financial literacy, our study did not find strong evidence of its significance in determining financial literacy, possibly due to the sample size or the age distribution in the sample.

The study's findings underscore the importance of educational interventions in enhancing financial literacy, particularly for those with lower levels of education. Given that education significantly contributed to the variation in financial literacy scores, policymakers and educators in Kerala can focus on designing targeted financial literacy programs, particularly aimed at individuals with lower education levels or those in early stages of their careers. Incorporating financial education into the curriculum at various stages of formal education could help build a more financially literate population in the future. As financial literacy continues to play a crucial role in personal economic well-being, addressing gaps in financial knowledge and behavior will be essential for enhancing greater financial inclusion in the state and across India.

CONSENT

Not applicable.

ETHICAL APPROVAL

This research was conducted as an independent study by the authors, adhering to all applicable ethical standards. Participation in the study was voluntary, and informed consent was obtained from all respondents. Data collection and analysis were conducted with strict confidentiality to ensure respondent anonymity. Since the study did not involve any medical or clinical procedures, ethical clearance was deemed not applicable

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APPENDIX

OECD Framework used for assessing financial literacy

Elements of financial literacy		PARAMETER	SURVEY QUESTIONS		SCORING

Financial knowledge score	1	Division	Imagine that five brothers are given a gift of $1000. If the brothers have to share the money equally how much does each one get? [Open response: $200]		1 Point for correct response and 0 for incorrect response
	1	Impact of inflation on spending power / Time value of money	Now imagine that the brothers have to wait for one year to get their share of the X. In one year's time will they be able to buy: Multiple choice: a) More, b) the same amount, or c) less than they could buy today.		
	2	Understanding interest paid on a loan	You lend X to a friend one evening and he gives you X back the next day. How much interest has he paid on this loan? (0)		
	3	Simple interest calculation	Suppose you put $100 into a savings account with a guaranteed interest rate of 2% per year. You don't make any further payments into this account and you don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made? [Open response: $102]		
	4	Understanding the implication of compounding (compound Interest)	and how much would be in the account at the end of five years? Would it be: a) More than $110 b) Exactly $110 c) Less than $110 d) Or is it impossible to tell from the information given		
	5	Relationship between risk and return	An investment with a high return is likely to be high risk [True/False]		
	6	understanding Definition of inflation	High inflation means that the cost of living is increasing rapidly [True/False]		
	7	Understanding Risk diversification	It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares [True/False]		
				Total Maximum Score	8
Financial Behaviour	1	Taking care of expenses	Before I buy something I carefully consider whether I can afford it	Scale of 4 to 5 on a scale (Never=1 to Always=5.)	1 point for respondents who put themselves at 4 or 5 on the scale. 0 in all other cases.
	2		I pay my bills on time		
	3	Keeping control of money	I keep a close personal watch on my financial affairs		
	4	Financial Planning	I set long term financial goals and strive to achieve them		

	5		Does Your Household have Budget? Are you responsible for budget		1 point if personally or jointly responsible for money management and has a budget. 0 in all other cases.
	6		I am prepared to risk, some of my own money when saving or making an investment		1 point for any type of active saving (excluding letting money build up in a current account as this is not active). 0 in all other cases
	7	Financial Product choice	Financial product choice after gathering some info		1 point for people who had tried to shop around or gather any information. 2 points for those who had shopped around and gathered independent information. 0 in all other cases
	8		Financial product choice after shopping around and using independent info or advice		
	9		In the last 12 months have you encountered situation wherein your income does not cover for your living costs? If Yes, What Did you do to meet your living cost?		0 if the respondent used credit to make ends meet. 1 in all other cases
				Total Maximum Score	9
Financial Attitude	1	whether the respondent tends towards short-term gratification, or long term security (ie propensity to save vs spend, time and preference)	I find it more satisfying to spend than save it for the long term	In a scale of 1 to 5 (Completely agree=1 to Completely disagree=5)	total score obtained/3
	2		I tend to live for today and let tomorrow take care of itself		
	3		Money is there to be spent		

Total Maximum Score	5

Total Maximum Financial Literacy Score	22