



**Impact of Financial Literacy on Personal Investment Decisions: An Empirical
Study of Individual Investors in Delhi**

Priya Sharma

Research Scholar, Department of Commerce, University of Delhi, Delhi, India

Abstract

In recent years financial literacy has been considered as a crucial element that affects the financial behavior and this is significant in a country like India where there is a rapid development of the economy and the households are supposed to manage their financial behavior, retirement and wealth creation and also have to look after their risk. The current study emphasizes on impact of financial literacy on personal investment decision of individual investors of Delhi, India. The study adopts a structured questionnaire which was answered by the sample of 300 respondents that were selected using the stratified random sampling technique and a financial literacy description of three core components namely financial knowledge, financial attitude and financial behaviour. Evaluation of decision-making in investments is determined by following aspects: diversification of investment portfolio, risk-taking, investment frequency, traditional investment instruments and market linked investment instruments. The data was analyzed by descriptive statistics, reliability analysis, correlation analysis, independent samples t-test, one-way ANOVA and multiple linear regression using the SPSS software. The results show that financial literacy is positively correlated with the quality of personal investment decision ($r = 0.612$, $p < 0.01$), which is statistically significant. According to the result of regression analysis, the three dimensions of financial literacy explain at least 47 per cent of the variance of the quality of investment decision, of which financial knowledge is the most important dimension. There are also significant factors of education, income and age. The study identifies a significant and statistically significant correlation between financial education and the investment experience of the domestic households and proposed measures for financial education suppliers, educators and financial institutions.

Keywords: financial literacy, investment decisions, financial behaviour, risk tolerance, portfolio diversification, Delhi, individual investors

1. Introduction

The reforms in the Indian economy, the development of financial products and digitisation of financial services have collectively changed the economic environment in which households make economic choices. Today, people are faced with a myriad of investing choices that grow increasingly complicated, from bank accounts to gold stocks, to mutual funds, exchange-traded funds and sophisticated derivatives. This democratisation of finance offers opportunities for wealth creation like never before, but demands a lot of cognitive effort from investors to evaluate the risks, returns, liquidity and taxation of the myriad of financial products. In this world, it has become essential to have some financial literacy, not just a nice to have.



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

Financial literacy can be broadly defined as a mix of knowledge, skills, attitudes and behaviours that enable people to make informed decisions and eventually attain individual financial wellbeing. Although everyone acknowledges its importance, the survey results indicate that a large majority of Indians are not well-versed with finance. This gap is particularly significant in a metropolitan area like Delhi, where there are high disposable incomes, aggressive financial product marketing and a large variation between the financial sophistication of different socioeconomic strata. Therefore, it is not only in theory but in practicality, the knowledge of the effect of financial literacy in making an investment decision becomes relevant and important.

1.1 Background of the Study

Investing decision-making is a complex cognitive process, which is determined by both rational and behavioural factors. Classical finance theory makes the assumption that the investors are rational utility maximisers who use all information efficiently. But, behavioural finance has shown that real investors are influenced by cognitive biases, heuristics, and emotions that systematically influence their decisions. Financial education is commonly believed to counter these biases by providing investors with the conceptual framework to process information, understand risk and avoid behavioural errors like loss aversion, overconfidence and herding. The Reserve Bank of India and the National Centre for Financial Education have initiated a number of measures to increase awareness about finance in India, but there is limited empirical evidence on the exact nature of the link between financial literacy and investment behaviour at the regional level.

1.2 Statement of the Problem

Though an expanding international body of literature connects financial literacy and financial outcomes, there is a relative lack of empirical region-specific studies on individual investors in the Indian metropolitan markets. Most of the previous literature on financial literacy in India has been unidimensional and focuses on the overall concept instead of the separate components of financial knowledge, financial attitude and financial behavior. Also, the moderating effect of demographic factors (age, gender, education, and income) on the relationship between literacy and investment is not entirely understood. This study aims to fill these gaps by looking at the multidimensional financial literacy impact on personal investment decisions of investors of Delhi and also to look at the influence of the demographic factors on the same.

1.3 Objectives and Hypotheses

The specific objectives of the present study are (i) to evaluate financial literacy among individual investors of Delhi on knowledge, attitude and behaviour dimension; (ii) to examine relationship between financial literacy and quality of personal investment decision and (iii) to find out whether any significant relationship exist between demographic characteristics of the individual investors and their investment decision. In line with these objectives, the study tests the following hypotheses:

H1: There is a significant positive relationship between financial literacy and the quality of personal investment decisions.



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

H2: Financial knowledge, financial attitude, and financial behaviour each significantly predict investment decision quality.

H3: Investment decisions differ significantly across demographic groups defined by gender, age, education, and income.

2. Literature Review

This section provides an overview of the existing literature on the financial literacy and investment behaviour concept, and covers the following three thematic strands: conceptualization and measurement of financial literacy, empirical evidence of the relationship between financial literacy and investment decisions, and demographic and behavioural correlates of financial literacy. The review places the current study in context of related literature and reveals the gaps that it will fill.

2.1 Conceptualisation and Measurement of Financial Literacy

The definition of financial literacy has been interpreted in various manners, from the narrow interpretation of the numerical and conceptual knowledge to a broader interpretation of attitudes and behaviors. Lusardi and Mitchell (2014) proposed a highly influential conceptualization of financial literacy based on three fundamental concepts, which are widely known as the “Big three” questions: compound interest, inflation and risk diversification. The OECD has proposed a three-part framework of financial knowledge, financial attitude and financial behaviour, which has been adopted by Atkinson and Messy (2015). To this end, Potrich, Vieira and Kirch (2015) created and validated a complete financial literacy index that includes all these dimensions, which shows that a multi-dimensional approach has more explanatory power than purely knowledge-based approaches. Agarwalla et al., (2015) in India created a country-specific financial literacy index and reported high financial literacy differentials among demographic groups. As a whole, these studies highlight the need to consider financial literacy as a multi-faceted phenomenon, which is done in this research.

2.2 Financial Literacy and Investment Decisions

There is a large empirical literature which connects financial literacy with investment outcomes and investment behavior. Van Rooij, Lusardi and Alessie (2011) showed that having financial literacy was a strong predictor of stock market participation for financially literate households, and this result was supported in many later studies. Mouna and Anis (2017) discovered that financial literacy has a positive impact on the diversification of the portfolio and decreases the vulnerability of behavioural biases. Adil et al. (2022) found that financial literacy plays a moderating role between behavioural biases and investment decisions of Indian investors, mitigating the negative impacts of overconfidence and herding. Baihaqqy et al. (2020) and Khan et al. (2021) revealed a positive relationship between financial literacy and investment decision-making in emerging markets and financial knowledge with the rationality of investment decision, respectively. According to Sivaramakrishnan, Srivastava and Rastogi (2017) besides knowledge, the attitude also influences the investment decision in equity markets. The findings of these studies coincide in the overall finding that financial literacy enhances the quality of investment decisions, however, the impact of the individual dimensions of financial literacy is still disputed.



2.3 Demographic Correlates and Research Gap

Demographic variation in financial literacy and investment behaviour consistently appears in the literature. It was noted by Lusardi and Mitchell (2014) that women, youth, and those with lower education levels are less financially literate in most countries. Bucher-Koenen, Lusardi, Alessie and van Rooij (2017) studied the gender gap in financial literacy and its consequences for retirement planning. Bhushan and Medury (2013) and Arora (2016) reported that financial literacy level varies significantly by gender, education and income group in India. In a systematic review, Goyal and Kumar (2021) found that three factors—namely, income, education, and age—are the most robust factors to predict financial literacy and suggested the need for more detailed regional studies. However, there is relatively limited research that distinguishes between the various components of financial literacy and instead includes demographic variables in one investor population. The current research aims to fill this gap by analyzing the dimension specific effect of financial literacy on investment decisions of individual investors in Delhi and provide region specific evidence in the existing literature.

3. Research Methodology

This section describes the research design, study area, sampling procedure, instrument, variables, and analytical techniques employed in the study.

3.1 Research Design and Study Area

The study has a quantitative research design with descriptive-cum-analytical approach and it is a cross-sectional study. Delhi National Capital Territory (NCT) is a metropolitan region with a diverse population, high financial product penetration, and various types of investors making it an ideal setting for studying financial literacy and its relationship with investment. Target population individual investors aged 18 years and older who have at least one type of financial investment instrument other than a basic savings account.

3.2 Sample and Sampling Technique

The sample of individual investors was taken by stratified random sampling method in order to have adequate representation in each sampling strata based on gender, age, education and income. Delhi was first divided in geographical zones and the respondents were sampled in the ratio of the broad geographical zones. The sample size of 300 was deemed to be sufficient and to meet the rule-of-thumb for at least ten observations for each predictor variable for multivariate analysis done. Of the 340 questionnaires returned 312 made a return and 300 were usable (i.e. not incomplete or inconsistent) giving an effective response rate of about 88 per cent.

3.3 Instrument, Variables, and Analytical Tools

Data was obtained using a structured questionnaire which has three sections. Demographic data, such as gender, age, educational level, occupation, and monthly income, were obtained in the first section. Validated items from the OECD framework and previous studies in India were used to measure financial literacy in three areas – financial knowledge, financial attitude, and financial behaviour, with answers provided on a five-point Likert scale. The third section evaluated individual investment decision factors such as diversification of investment portfolio, risk appetite,



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

investment frequency, and selection of instrument. Financial literacy and three dimensions of financial literacy were used as independent variables, and investment decision quality as dependent variable, and other factors as grouping and control variables.

All the collected data were analysed with the help of the Statistical Package for the Social Sciences (SPSS 26). The analytical techniques used were: (i) descriptive statistics to profile the sample and to summarise key variables; (ii) Cronbach's alpha reliability analysis to determine the internal consistency of the scales; (iii) Pearson correlation analysis to assess the bivariate relationships; (iv) independent samples t-test and one-way analysis of variance (ANOVA) to test for between group differences across the demographic categories; (v) multiple linear regression analysis to assess the joint and individual contribution of each financial literacy dimension to the quality of investment decisions. Throughout the significance level of $p < 0.05$ was used and the hypothesis of normality, linearity, multicollinearity and homoscedasticity were tested before use of regression.

4. Results and Analysis

The results of the study are presented here. Results are summarized in five tables including a demographic profile of the respondents, reliability statistics, correlation analysis, group difference tests and regression analysis with interpretation.

4.1 Demographic Profile of Respondents

The breakdown of the 300 respondents by demographics is shown in Table 1. Females and males in the sample are fairly well balanced (slightly more males) and the age range is skewed towards the economically active range. The majority of the respondents are educated with more than half of them having a graduate degree or higher, depicting the urban and relatively educated nature of the investor population of Delhi.

Table 1. Demographic Profile of Respondents (N = 300)

Variable	Category	Frequency	Percent
Gender	Male	168	56.0
	Female	132	44.0
Age (years)	18–30	84	28.0
	31–45	126	42.0
	46–60	66	22.0
	Above 60	24	8.0
Education	Up to higher secondary	48	16.0
	Graduate	132	44.0
	Postgraduate and above	120	40.0
Monthly income (₹)	Below 50,000	90	30.0
	50,000–1,00,000	138	46.0
	Above 1,00,000	72	24.0

Source: Primary data computed using SPSS.



4.2 Reliability Analysis

To ensure that the measurement scales used were internally consistent, Cronbach's alpha was first calculated before substantive analysis was performed. As seen in Table 2, all scales score above the suggested cut-off for good to high reliability (0.70). The results show that the instrument used, both scales (overall financial literacy scale and investment decision scale) have high internal consistency that means the instrument is suitable for further analysis.

Table 2. Reliability Statistics (Cronbach's Alpha)

Construct / Scale	No. of Items	Cronbach's Alpha
Financial knowledge	6	0.812
Financial attitude	5	0.784
Financial behaviour	6	0.831
Overall financial literacy	17	0.869
Investment decision quality	8	0.842

Source: Primary data computed using SPSS. Alpha ≥ 0.70 indicates acceptable reliability.

4.3 Correlation Analysis

The bivariate relationships of the financial literacy dimensions and the quality of investment decisions were explored using Pearson correlation analysis. The correlation matrix is shown in Table 3. The three dimensions of financial literacy are all positively and significantly related to the quality of investment decision at 0.01 level. The financial knowledge has the highest correlation with investment decision ($r = 0.571$), financial behaviour ($r = 0.538$) and financial attitude ($r = 0.462$). Based on the Pearson correlation results, it can be seen that the overall financial literacy index is significantly correlated with investment decision with r value of 0.612 ($p < 0.01$) and thus Hypothesis H1 is supported. Inter-correlations between the predictors are of moderate magnitude and this does not suggest that multicollinearity is likely to be a problem with the regression analysis.

Table 3. Correlation Matrix of Study Variables

Variable	(1)	(2)	(3)	(4)	(5)
(1) Financial knowledge	1	—	—	—	—
(2) Financial attitude	0.418	1	—	—	—
(3) Financial behaviour	0.502	0.447	1	—	—
(4) Overall literacy	0.842	0.761	0.818	1	—
(5) Investment decision	0.571	0.462	0.538	0.612	1

Source: Primary data computed using SPSS. All correlations significant at $p < 0.01$ (2-tailed).

4.4 Group Differences: t-test and ANOVA

To test hypothesis H3, independent samples t-test and one-way ANOVA were run to determine if there was a significant difference in the quality of investment decision among the different demographic groups. The results are summarised in table 4. The result of the independent samples t-test shows that there is a significant difference between the Investment Decision scores of male and female respondents ($t = 2.83$, $p = 0.005$); and that the mean Investment Decision scores for



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

males are very slightly higher. One-way ANOVA shows that there are significant differences between the various education groups ($F = 12.46$, $p < 0.001$) and income groups ($F = 9.87$, $p < 0.001$) and the higher the level of education and income, the better the investment decisions. Age differences are also significant ($F = 4.21$, $p = 0.006$). In general, these results provide evidence in favour of Hypothesis H3, which proposed that there is a meaningful relationship between demographic variables and investment behaviour.

Table 4. Tests of Group Differences in Investment Decision Quality

Demographic Factor	Test	Statistic	df	p-value
Gender	t-test	2.83	298	0.005
Age	ANOVA (F)	4.21	3, 296	0.006
Education	ANOVA (F)	12.46	2, 297	0.000
Income	ANOVA (F)	9.87	2, 297	0.000

Source: Primary data computed using SPSS. Significant at $p < 0.05$.

4.5 Regression Analysis

Multiple linear regression was then used to test hypothesis H2 and estimate the joint and relative effects of the three dimensions of financial literacy on quality of investment decisions. The model is statistically significant ($F = 87.34$, $p < 0.001$) and explained a large percent of variance in the investment decisions (R -square is 0.470 and adjusted R -square is 0.464). This means that the quality of investment decisions can be explained by the three aspects of financial literacy combined about 47 per cent of the time. Table 5 shows all three predictors to be positive and statistically significant. Financial knowledge is the strongest predictor ($\beta = 0.342$, $p < 0.001$), followed by financial behaviour ($\beta = 0.291$, $p < 0.001$) and financial attitude ($\beta = 0.188$, $p < 0.001$). As can be seen, the variance inflation factor values are far less than the cut-off value of 5, thus implying that there is no serious collinearity problem. The findings are very supportive for the hypotheses H1 and H2.

Table 5. Multiple Regression Results (Dependent Variable: Investment Decision Quality)

Predictor	B	Std. β	t-value	p-value
(Constant)	0.642	—	3.18	0.002
Financial knowledge	0.351	0.342	6.74	0.000
Financial attitude	0.196	0.188	3.92	0.000
Financial behaviour	0.304	0.291	5.61	0.000

$R^2 = 0.470$; Adjusted $R^2 = 0.464$; $F = 87.34$ ($p < 0.001$). Source: Primary data computed using SPSS.



4.6 Discussion of Findings

The overall results of the study reveal that financial literacy has a strong positive impact on personal investment decision making of the individual investors in Delhi. The study's result of significant correlation and regression value of financial knowledge is consistent with the findings of Van Rooij et al. (2011) and Khan et al. (2021) which emphasized the importance of conceptual knowledge on rational investing. The role of financial behaviour is very important and confirms the multidimensional approach of Atkinson and Messy (2015) and Potrich et al. (2015) that regular budgeting, saving and financial investments control activities have a positive impact on the results of decisions. This comparatively smaller but still significant effect of financial attitude is similar to the results of Sivaramakrishnan et al. (2017) who have found that attitudinal dispositions are important on investment intention even after controlling for knowledge. Finally, the significant variations in the population profiles revealed are consistent with the findings of Bhushan and Medury (2013), Arora (2016) and Goyal and Kumar (2021) in India, showing that the literacy and behavior is different between males and females and across different age, education and income groups.

5. Conclusion

It was the objective of this study to ascertain the effect of financial literacy which is multi-dimensional phenomenon (financial knowledge, financial attitude and financial behaviour) on personal investment decision of individual investors of Delhi. The study found that there is strong positive correlation between the financial literacy and the quality of investment decision based on descriptive statistics, reliability analysis, correlation analysis, t-test, ANOVA and multiple regression analysis of 300 respondents using SPSS software. Financial knowledge was found to be the most influential dimension while financial behaviour and financial attitude were the other two dimensions, which collectively accounted for about 47 per cent of the variance in the quality of investment decisions. In addition, demographic variables like education and income were also proven to play a role.

The results have significant implications for policy makers, financial institutions and educators. The positive relationship between literacy and investment quality is clearly evident, providing strong reasons for targeted financial education programming, especially for those with lower incomes, women, and younger investors, as these groups have poorer outcomes. Financial institutions can support regulators by making information easily available to users via digital platforms and making it behaviourally informed, and education institutions can incorporate practical personal finance components into curricula. These interventions are likely to be more effective in the more product-heavy, more forceful, cities.

As with all research, there are limitations which point towards further research. This is a cross sectional design and the data collected are self-reported which may provide response biases. Such a geographically bounded study (Delhi) is analytically useful, but the results cannot be generalised. Potential future research could be longitudinal, objective investment performance results, for other regions of the world, and with more explicit attempts to build the behavioural biases as mediators.



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

In spite of all these limitations, the study offers evidence at the regional dimension level that financial literacy is relevant and that it is susceptible to action to better improve the investment decisions of the household.

References

1. Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderates the association between behaviour biases and investment decision? *Asian Journal of Accounting Research*, 7(1), 17–30.
2. Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2015). Financial literacy among working young in urban India. *World Development*, 67, 101–109.
3. Arora, A. (2016). Assessment of financial literacy among working Indian women. *Business Analyst*, 36(2), 219–237.
4. Atkinson, A., & Messy, F. (2015). Financial education for long-term savings and investments: Review of research and literature. *OECD Working Papers on Finance, Insurance and Private Pensions*, 39, 1–37.
5. Baihaqqy, M. R. I., Disman, Nugraha, Sari, M., & Ikhsan, S. (2020). The effect of financial literacy on the investment decision. *Budapest International Research and Critics Institute Journal*, 3(4), 3073–3083.
6. Bhushan, P., & Medury, Y. (2013). Financial literacy and its determinants. *International Journal of Engineering, Business and Enterprise Applications*, 4(2), 155–160.
7. Bucher-Koenen, T., Lusardi, A., Alessie, R., & van Rooij, M. (2017). How financially literate are women? An overview and new insights. *Journal of Consumer Affairs*, 51(2), 255–283.
8. Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, 45(1), 80–105.
9. Khan, F., Tan, O. F., & Gul, M. (2021). Financial knowledge and investment decisions: The mediating role of financial confidence. *Journal of Behavioral and Experimental Finance*, 31, 100–112.
10. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44.
11. Mouna, A., & Anis, J. (2017). Financial literacy in Tunisia: Its determinants and its implications on investment behavior. *Research in International Business and Finance*, 39, 568–577.
12. Potrich, A. C. G., Vieira, K. M., & Kirch, G. (2015). Determinants of financial literacy: Analysis of the influence of socioeconomic and demographic variables. *Revista Contabilidade & Finanças*, 26(69), 362–377.
13. Sivaramakrishnan, S., Srivastava, M., & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International Journal of Bank Marketing*, 35(5), 818–841.
14. Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.
15. Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1–8.



International Journal of Social Sciences, Commerce & Management Studies (IJSSCM)

An International Open Access, Peer-Reviewed Refereed Journal

Website: <https://ijsscm.com/>

16. Hassan Al-Tamimi, H. A., & Kalli, A. A. B. (2009). Financial literacy and investment decisions of UAE investors. *Journal of Risk Finance*, 10(5), 500–516.
17. Jappelli, T., & Padula, M. (2015). Investment in financial literacy, social security, and portfolio choice. *Journal of Pension Economics & Finance*, 14(4), 369–411.
18. Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). Financial literacy around the world: Insights from the S&P Global FinLit Survey. Washington, DC: Standard & Poor's.
19. Bongini, P., & Cucinelli, D. (2019). University students and retirement planning: Never too early. *International Journal of Bank Marketing*, 37(3), 775–797.
20. Nguyen, T. A. N., Rozsa, Z., Belas, J., & Belasova, L. (2017). The effects of perceived and actual financial knowledge on investment decisions. *Journal of Competitiveness*, 9(1), 36–50.