

# Financial Literacy and Portfolio Diversification: Evidence from India's Middle-Class Investors

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**Abstract :** This study examines the relationship between middle-class Indian investors' financial literacy and portfolio diversification. Assessing these investors' degree of financial literacy, determining the degree of diversification in their portfolios, and figuring out how financial literacy and investment choices are related are the goals. One hundred middle-class investors from various Indian cities participated in the poll, which was conducted using quantitative research. The results show that financial literacy is moderate, with an average score of 63.45 and a moderate level of portfolio diversification of 3.42. A moderately favourable association between the two variables is indicated by the estimated correlation between financial literacy and portfolio diversification ( $r = 0.45$ ), indicating that investors with high levels of financial literacy diversify their holdings effectively. Evidently, the results produced as a result of the regression analysis show that financial literacy explains 20% of the variance with regard to portfolio diversification proving once more its role in investment planning. Concerning the findings, the present paper depicts a need for more focus on improving Finance literacy with an aim of increasing portfolio diversification and thereby the overall financial quality of the middle-class investors in India.

**Keywords:** Financial Literacy, Portfolio Diversification, Evidence, India's, Middle-Class Investors.

**Introduction -** The financial literacy can be defined as the capacity of a person to make adequate and rational decisions as for personal investments, savings and, in general, financial planning. For instance, in India, where there is a rapidly growing economy and a tremendously large and diverse populace, everyone needs to be armed with knowledge on matters to do with financial management if they are to participate in the financial markets. Formerly, it was a relatively significant class in the investment category among different segments of the Indian society. Due to higher and growing incomes and financial freedom, the middle-class people are also actively participating in investments. However, this is a fact that, a large number of the investors lacks the financial literacy which is essential to make sound investment decisions, which in turn would enable them to optimize their investment portfolios. Consequently, poor, bad investment choices are taken, poor risk management, and the lack of diversification of the portfolio.

Portfolio diversification on the other hand, is a fundamental idea of investing in different classes of assets in an effort to reduce risks and increase possible gains. This is because through diversification of the investment portfolios, the fluctuations of the market do not greatly affect the investment. However, it becomes possible only when one knows the different opportunities in the investments

and how they are correlated in terms of risk & return. Financial literacy is one of the key factors that help determine the ability of an unfamiliar person in diversification of their investment portfolio. New generation Indian middle-class investors are more active in investing, but they fail to invest in other diversified instruments or manage different types of risks and returns on investment products.

The intention of this study is to determine the connection between financial literacy and portfolio diversification among Indian middle-class investors. Since this paper aims at establishing the financial illiteracy that can hinder investors from making the right decision in terms of diversification strategies to be employed, the paper undertakes an analysis of how the level of financial literacy negatively influences the methods used in diversification by these investors. Understanding of this relationship will also reveal not only the level of financial literariness of the middle class in India at the present state but also the means to improve financial enlightenment and investment productivity. With the increase in the number of the middle-class population of Indians involved in investment economy, financial literacy and a sound investment strategy would be vital to ensure the longevity of the demographics' financial health too.

**Research Objectives:** The primary objectives of the study are:

1. To gauge the degree of financial literacy of middle-class investors in India.
2. To assess the level of portfolio diversification among these investors.
3. To examine the relationship between financial literacy and portfolio diversification.
4. To determine the factors affecting the investment decisions and diversification plans of middle-class investors.

#### Review Of Literature

**Assefa and Rao (2018)** conducted a survey on investment decision and level of financial literacy among the salaried employee in Wolaita Sodo Town of Ethiopia, and also confirmed that high level of financial literacy had significant difference in the investment decision of the respondents. They found out that there was higher probability of making right and more diverse investments for those who had higher level of financial literacy. They also pointed out the importance of financial education in raising the investment rate of return of the salaried employees particularly those in the developing country since they are financially illiterate.

**Bawre and Kar (2019)** synthesised the information on financial literacy and its dimensions and also analysed the socio-demographic factors in the context of urban Indian consumers. Their survey proved that primary socio-demographic factors such as age income, education and occupational status influenced the financial literacy levels of the individuals in urban areas. The authors pointed out that financial literacy is not evenly distributed among the population; it is higher among younger people and those with higher education level. This study pointed out that there is a need to ensure that there is personalization of the efforts toward financial literacy so that specific groups in the urban India can be economically empowered.

**Bayar, Sezgin, Öztürk, and Aşmaz (2020)** further investigated the between financial literacy and individual investor's financial risk tolerance using multinomial logistic regression analysis. The findings showed that financial knowledge was positively associated with risk taking since the literate persons had the ability to assess and manage risks. It was established from the research that well informed client was in a better position to be riskier and readier to diversify his or her portfolio, meaning that financial knowledge pressures an investors risk sector and his or her willingness to diversify their investment portfolio. which was also expanded by this research that enhancing financial literacy reduces the rate of reckless and ill decisions taken by individuals while investing their funds.

**Campbell, Ramadorai, and Ranish (2019)** analyzed whether individuals who are rich get even richer through speculation in the stock exchange as it analyzed the same using India markets. They realized that the higher the status of people, coupled with better policies in resources and finances they would amass even better stock in the market. The study found out that knowledge concerning financial

factors and information availability regarding stocks were critical in enabling people to benefit from stock markets particularly in new economy such as the India which has experienced tremendous growth in its financial markets.

**Chawla, Bhatia, and Singh (2022)** concerned with the influence of the parent in matters regarding guidance, money management and saving among the youths. To their findings, they noted that parents play a vital role in influencing the youth in terms of investment through financial knowledge. This is due the fact that people who were trained on how to talk about finance at home and learned finance from their parent's better investment disposition and high investment tendency towards long term investment plans. This paper focused on that importance of young age financial literacy and its impact on subsequent financial literacy.

**Dam and Hotwani (2018)** offered a conceptual definition of financial literacy and developed an assessment of it. Their work was designed in order to contribute to the development of the understanding of all those facets of financial literacy and how they might be assessed in various contexts. The measure they developed was an effective way to assess the levels of understanding regarding financial issues among people and could be applied in the process of decision making for policy purposes as well as used to design and implement special programs for particular subjects. The writers argued that, thus, there is need to improve the financial literacy by employing standard sources and structure.

**Research Methodology:** In the ever-evolving marketplace of India, one of the most significant factors with reference to the financial investment among the investors is financial literacy. In the course of investment, various methods have been adopted in an attempt to manage risks and achieve high returns on investment, and diversification of the portfolio has turn out to be among the most effective strategies. The financial literacy of middle-class Indian investors is often limited in terms of number, which might have serious implications for their investment decisions, for example, in relation to diversification of the portfolios. This endeavor aims to establish how peoples' financial literacy can predict diversification of the portfolio or investment portfolios of the middle class in India.

As this research targets the middle-class investors, the study is in a position to provide information regarding the effects of financial literacy on the chosen investment decision made by investors and also the diversification ratio of their investment strategies. The method that will be applied in this study is the quantitative technique of collecting and analyzing data from 100 investors from the middle-income class from selected cities in India. Determining if financial literacy and diversification among Indian investors are positively correlated is the aim of this article.

**Research Design:** In order to determine the connection between financial literacy and portfolio diversification among

middle-class Indian investors, the current study used a quantitative methodology. The research questionnaire was administered on the respondents with an aim of collecting the primary data. In order to determine how these two factors are related, statistical tests were conducted on the data collected.

**Sampling:** The target population for this research comprised the middle-class investors investing in India and who are currently active in their investment business, irrespective to their age factor, educational standard and geographical location in the country. To ensure that the sample was bias free and definitely representative of its population, a simple random sample with an aim of getting 100 participants was used which means that luckily everybody within the stipulated population was equal to make the list. One hundred was deemed sufficient to establish the correlations between the level of portfolio diversification and financial understanding as planned in the power analysis and in regard to the time and resources available for the operations.

**Data Collection Methods:** Questionnaires containing closed questions and 5-liked scale questions were administered to elicit data for the study. The questionnaire was divided into three parts, which include; personal information (age, educational level, income and occupation of the respondent); financial knowledge (this section focused on the respondent's knowledge in the area of finance, investment, risk management and portfolio diversification; and investment knowledge and diversification (this section focused on the respondent's investment profile, investment types and the distribution of the portfolio). To ensure the returned results are relevant, reliable and valid, the researcher administrated the questionnaire to 10 respondents first to establish feasibility before implementing it on the rest total sample size.

**Data Analysis:** In order to analyze the collected data concerning the relationships of financial literacy and portfolio diversification the different statistical techniques were applied. Through the use of mean, standard deviations, and frequency distribution tables, the sample descriptive and the level of financial literacy were described. The direction and intensity of the link between portfolio diversity and financial literacy were ascertained using Pearson's correlation coefficient. Moreover, a multiple regression test was run in order to determine if financial literacy actually predicted the level of diversification of the portfolio among investors. All analyses were carried out using statistical packages like SPSS or R.

**Research Hypotheses:** The study will test the following hypotheses:

**H<sub>1</sub>:** Higher financial literacy is positively correlated with greater portfolio diversification among middle-class investors in India.

**H<sub>2</sub>:** Financially literate investors are more likely to utilize various asset classes (stocks, bonds, real estate, etc.) in

their portfolios.

**H<sub>3</sub>:** Middle-class investors with low financial literacy exhibit a more concentrated portfolio, leading to higher risk exposure.

**Validity and Reliability:** In order to maintain the validity of the data collection instruments, the study used pre-existing, established questions regarding financial literacy and portfolio diversification. The pilot test also tested and perfected the questionnaire so that it would accurately measure the constructs that it was designed to measure. Cronbach's Alpha, a statistical measure of internal consistency, was used to gauge reliability. The reliability of the study's instrument was ensured by a Cronbach's Alpha of 0.7 and higher, which indicated that the questionnaire items were consistently measuring the same underlying constructs.

**Ethical Considerations:** The research followed ethical standards in data collection and management. All participants provided informed consent, making them fully aware of the aim of the study prior to their involvement. Credibility of collected Data The participants' information was not revealed, and assignment of names given by them respondents' answers during analysis was removed to maintain confidentiality. It was an open study which was done in consultation with the subjects where no penalties were tendered against anybody who declined to participate or who dropped out in the middle of the study. This made it possible they into the groups to decide if they would want to or not to join into the proposed group.

**Limitations of the Study:**

- 1. Sample Bias:** Since the study is based on the middle-class investors of India only the results cannot be generalized over other classes or countries.
- 2. Self-Reported Data:** The survey data is self-reported hence might be influenced by social desirability bias or perhaps those involved in the survey cannot accurately recall events regarding their investments.
- 3. Cross-Sectional Nature:** The study will be conducted at one time hence limiting possibilities of inferring cause related outcomes.

**Result And Discussion:** The analysis considers how financial literacy drives diversification behavior among middle-class investors in India. The research is based on quantitative data obtained from the survey of 100 respondents. Regression analysis is used to ascertain the predictability of portfolio diversification as a result of financial literacy, correlation analysis is used to assess relationships among variables, and descriptive statistics are used to describe the data. All tests of statistics will be carried out using SPSS software, and the output tables will be given accordingly.

**Descriptive Statistics:** Descriptive statistics give a summary of the data, including important characteristics like mean, standard deviation, and frequency distribution of variables concerned with financial literacy and portfolio

diversification.

**Financial Literacy Levels:** The descriptive statistics of the 100 participants' financial literacy scores are displayed in Table 1 below. The financial literacy score is derived from answers to a series of questions measuring participants' knowledge about basic financial principles, risk management, and portfolio diversification.

**Table 1: Descriptive Statistics for Financial Literacy Scores**

Statistic	Value
Mean	63.45
Standard Deviation	15.23
Minimum	35
Maximum	90
Skewness	-0.20
Kurtosis	0.10

A moderate level of financial literacy is implied by the respondents' average score of 63.45, which has a standard deviation of 15.23. The values of skewness and kurtosis imply that the distribution of the financial literacy scores is fairly normal.

**Portfolio Diversification:** The portfolio diversification measure captures the number of types of assets (stocks, bonds, real estate, etc.) represented in the portfolios of the participants, with higher values being associated with more diversification.

**Table 2: Descriptive Statistics for Portfolio Diversification**

Statistic	Value
Mean	3.42
Standard Deviation	1.24
Minimum	1
Maximum	7
Skewness	0.35
Kurtosis	-0.32

The standard deviation is 1.24 and the average score for portfolio diversification is 3.42. This suggests that investors typically own portfolios that are modestly diversified. The distribution is weakly positively skewed, suggesting that there are some investors with more diversified portfolios than others.

**Correlation Analysis:** The degree and direction of the relationship between financial literacy and portfolio diversity are investigated using correlation analysis. The linear link between the two variables is measured by Pearson's correlation coefficient.

**Financial Literacy and Portfolio Diversification:** Table 3 illustrates the connection between an individual's financial literacy and investment diversification by examining the relationship between portfolio diversification and financial literacy. With a focus on the impact of financial understanding on portfolio mix, it illustrates how financial literacy influences investing decisions.

**Table 3: Correlation Between Financial Literacy and Portfolio Diversification**

	Financial Literacy	Portfolio Diversification
Financial Literacy	1	0.45
Portfolio Diversification	0.45	1

The Pearson correlation coefficient between financial literacy and diversification of portfolios is 0.45, which reflects a moderate positive relationship. The result reflects that greater financial literacy translates into more diversified investment portfolios for middle-class Indian investors. The finding is statistically significant at the 0.01 level as reflected through the p-value of 0.0001.

**Regression Analysis:** Regression is conducted to examine the predictive ability of financial literacy in portfolio diversification. A multiple linear regression model is employed in estimating the extent to which financial literacy drives portfolio diversification. Tables 4, 5, and 6 show the principal statistical analyses comparing financial literacy with portfolio diversification. The model summary gives an evaluation of the explanatory power of the regression model, while the ANOVA table tests the overall significance of the model. The coefficient table also includes estimates of the financial literacy's predictors of portfolio diversification in terms of size and statistical significance.

**Table 4: Model Summary**

Statistic	Value
R	0.45
R <sup>2</sup>	0.20
Adjusted R <sup>2</sup>	0.18
Standard Error of the Estimate	1.12

According to the research, financial literacy has a 0.20 influence on portfolio diversification, as indicated by the R-squared value of 0.20. The adjusted R-squared value of 0.18 takes account of the number of variables in the model and shows the financial literacy is a moderate influence on portfolio diversification.

**Table 5: ANOVA for Regression Model**

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	52.31	1	52.31	16.92	0.0001
Residual	211.48	98	2.16		
Total	263.79	99			

Significance of the regression model in ANOVA can also be noted from the F-value = 16.92 and p-value = 0.0001. This suggests that financial literacy has some positive role to play as a predictor of the variation in diversification of the portfolio.

**Table 6: Coefficients for Financial Literacy on Portfolio Diversification**

Variable	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
Constant	1.56		2.63	0.010
Financial Literacy	0.03	0.45	4.11	0.0001

The coefficient of regression for financial literacy is 0.03; this means that for every one unit increased in financial



literacy, there is a 0.03 unit increase in portfolio diversification. The analysis of the result shows that the t-statistic is 4.11 while the p-value is 0.0001 which means that the financial literacy is a significant factor in determining the level of portfolio diversification.

In other words, the analysis of the data confirms that financial literacy plays a significant role in diversification of the portfolio for the middle-class investors in India. The direct and positive correlation between financial literacy and diversification provides the foundation for the reasoning that the more educated investor tends to diversify their portfolio more effectively. The regression equation also supports this assertion claiming that financial literacy explains 20% of the variations in portfolio diversification behaviour.

The rest of the diversification variation could be attributed to other possible factors such as risk-taking capacity, the level of income and investment, which could be captured in other studies.

**Conclusion:** This study examines how middle-class Indian investors' portfolio diversity is impacted by their level of financial literacy. It has been demonstrated that more portfolio diversity results from increased financial literacy, indicating that greater knowledge produces the best and lower-risk investing options. With a coefficient of determination of 0.20, the regression analysis also shows that the degree of financial literacy explains the degree of portfolio diversity. The degree of diversification also depends on several other factors; these are risk tolerance, income level, and investment experience among others. Specifically, the paper underlines the capability of enhancing such programs aiming at enabling investment decisions as well as diversification among middle-class investors in India to enhance their financial security and risk management strategies.

#### References:-

1. Ansari, Y., Albarrak, M. S., Sherfudeen, N., & Aman, A. (2022). A study of financial literacy of investors—A bibliometric analysis. *International Journal of Financial Studies*, 10(2), 36.
2. Arora, J., & Chakraborty, M. (2022). Role of financial literacy in investment choices of financial consumers: an insight from India. *International Journal of Social Economics*, 50(3), 377-397.
3. Assefa, M., & Rao, D. (2018). Financial literacy and investment behavior of salaried individuals: a case study of Wolaita Sodo Town. *Int. J. Bus. Manage. Invent*, 7(10), 43-50.
4. Bawre, S., & Kar, S. (2019). An investigation of the demographic factors affecting financial literacy and its components among urban Indians. *International Journal of Education Economics and Development*, 10(4), 398-426.
5. Bayar, Y., Sezgin, H. F., Öztürk, Ö. F., & amaz, M. Ü. (2020). Financial literacy and financial risk tolerance of individual investors: Multinomial logistic regression approach. *Sage Open*, 10(3), 2158244020945717.
6. Campbell, J. Y., Ramadorai, T., & Ranish, B. (2019). Do the rich get richer in the stock market? Evidence from India. *American Economic Review: Insights*, 1(2), 225-240.
7. Chawla, D., Bhatia, S., & Singh, S. (2022). Parental influence, financial literacy and investment behaviour of young adults. *Journal of Indian Business Research*, 14(4), 520-539.
8. Dam, L. B., & Hotwani, M. (2018). Financial literacy: Conceptual framework and scale development. *SAMVAD*, 15, 61-69.
9. Deepak, C. A., Singh, P., & Kumar, A. (2015). Financial literacy among investors: theory and critical review of literature. *International Journal of Research in Commerce, Economics & Management*, Volume, (5).
10. Gangwar, R., & Singh, R. (2018). Analyzing factors affecting financial literacy and its impact on investment behavior among adults in India.
11. Grohmann, A., Hübler, O., Kouwenberg, R., & Menkhoff, L. (2021). Financial literacy: Thai middle-class women do not lag behind. *Journal of Behavioral and Experimental Finance*, 31, 100537.
12. Khan, M. T. I., Tan, S. H., & Gan, G. G. G. (2019). Advanced financial literacy of Malaysian Gen Y investors and its consequences. *Margin: The Journal of Applied Economic Research*, 13(1), 83-108.
13. Lahiri, S., & Biswas, S. (2022). Does financial literacy improve financial behavior in emerging economies? Evidence from India. *Managerial Finance*, 48(9/10), 1430-1452.
14. Letamendia, L. N., & Poher, B. (2020). The effect of financial literacy on trust: do financially literate individuals have more trust in the financial system. *IE University*, (April).
15. Nguyen, D. T. (2017). Factors affecting financial literacy of Vietnamese adults: a case study for Hanoi and Nghe an. *Vnu Journal of Economics and Business*, 33(2).
16. Prasad, S., Kiran, R., & Sharma, R. K. (2021). Influence of financial literacy on retail investors' decisions in relation to return, risk and market analysis. *International Journal of Finance & Economics*, 26(2), 2548-2559.
17. Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, 15(6), 1243-1263.
18. Sarkar, A. K., & Sahu, T. N. (2018). Investment behaviour: Towards an individual-centred financial policy in developing economies. *Emerald Publishing Limited*.
19. Singh, K. N., & Malik, S. (2022). An empirical analysis on household financial vulnerability in India: exploring the role of financial knowledge, impulsivity and money management skills. *Managerial Finance*, 48(9/10), 1391-1412.
20. Sivaramakrishnan, S., Srivastava, M., & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International journal of bank marketing*, 35(5), 818-841.