

Portfolio Diversification Practices and Perceived Investment Risk among Investors

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Abstract

Investment decisions have become highly sophisticated and challenging with the proliferation of financial products, investment platforms, and marketplaces worldwide. At the same time, diversification has become an important strategy for individual investors to ensure portfolio safety by spreading the risk across multiple assets, sectors, financial instruments, and other features associated with investing. Nevertheless, one must understand that individual investors are not homogeneous in terms of risk appetite and propensity to diversify. This study aims to focus on portfolio diversification and the perceived level of risk associated with investments. The current study tries to determine the trends in financial-knowledge-based investment decisions and analyse how individual investors' financial literacy and experience influence their decision-making. The convenience sampling method was used to collect data from 211 respondents, who completed a questionnaire created in Google Forms. The instrument was composed of 28 items, most of which were measured using a 5-point Likert scale. Overall, good reliability was found for the items, with a Cronbach's Alpha of 0.87. The analysis was conducted using descriptive analysis, One-Way ANOVA, and Pearson's correlation. The current study found that there were significant differences in the mean scores of investment decision based on financial knowledge among the investment experience groups ($F = 182.25$, $p < .001$). Moreover, a positive correlation was found between diversification across sectors and diversification due to the perception of investment risk ($r = .313$). The current study found that individual investors who are aware of investment risks are likely to perceive diversification as an adequate risk management technique. The current research provides an insight into the role of financial literacy and experience in individual investors' decision-making and suggests a number of recommendations, including improving the level of literacy among investors and promoting appropriate diversification strategies.

Keywords: portfolio diversification, perceived investment risk, financial literacy, investment experience, investor behaviour, portfolio management, behavioural finance

1. Introduction

Investment planning has become an inseparable part of personal financial planning and wealth building. The investment products and services have evolved significantly in recent years due to digitization, availability of multiple investment options, mutual funds, exchange traded products, and easy access to information. An individual investor has access to a wide range of investment opportunities such as shares, mutual funds, bonds, debt instruments, gold, and other financial products and services. While the multiple options provide a wealth-building opportunity, the choice is complicated by the fact that every investment carries a different level and type of risk.

One of the common risk management approaches recommended for individual investors is diversification. Diversification is the allocation of investments across different asset classes, sectors, stocks, or other financial instruments so that the overall portfolio risk is minimized. Portfolio diversification relies on the concept of Modern Portfolio Theory, which states that the portfolio's total risk is determined by individual security risk as well as the interactions among the securities in the portfolio. However, risk is a subjective matter for many investors, which means that investors may perceive or estimate the risk differently.

The perceived investment risk is often associated with financial literacy and is influenced by personal experiences, financial knowledge, education, and level of involvement with the markets. According to the principles of Behavioural Finance, investors are subject to cognitive biases which significantly impact their decision-making process. While diversification and reducing risk exposure helps protect the portfolio against losses, the individual risk tolerance of investors might affect their decisions. The availability of online investing tools and products has facilitated the ease of portfolio management, but the abundance of information may impact an individual's ability to make rational judgments and decisions.

The current paper attempts to explore individual portfolio diversification and perceived investment risk using the example of the Indian investment market. The rising number of individual investors, digitization, and financial literacy have improved the level of personal investing in India. However, the varied levels of literacy and understanding might lead to significant differences in portfolio building approaches and risk assessment criteria. The current research will focus on individual portfolio diversification and perceived investment risk in India. Specifically, the study will focus on the relationship between diversification and perceived risk and whether investment experience influences the level of financial literacy and the ability to apply financial concepts to real-life scenarios.

1.1 Research Problem

Although diversification has always been considered an important way to mitigate unsystematic risk, investors are not always consistent when it comes to diversifying their investments. Some allocate their money to different sectors and financial instruments but others may put all their eggs in one basket. This inconsistency is often attributed to differences in knowledge and expertise, confidence, and perceived risk among investors.

The literature has well-established the effectiveness of diversification in reaping the benefits of lower unsystematic risk as well as the impact of behavioural factors on diversification choices. However, there is limited research on the link between diversification and perceived risk, specifically in the case of

individual investors. Therefore, this study aims to contribute to the existing body of knowledge by investigating the association between diversification and perceived risk.

1.2 Objectives of the Study

- To examine perceived investment risk among individual investors
- To analyse the relationship between portfolio diversification and perceived investment risk.

2. Literature Review

Portfolio diversification has been a central theme in investment research since Markowitz's development of Modern Portfolio Theory. Markowitz (1952) demonstrated that investors should consider the interaction between securities rather than assessing each investment independently. By combining assets that do not move perfectly together, investors can reduce portfolio variance and improve the risk-return characteristics of their portfolios.

The Capital Asset Pricing Model further developed the understanding of portfolio risk by distinguishing systematic and unsystematic components of risk. Sharpe (1964) argued that diversification can substantially reduce firm-specific risk, while systematic risk remains associated with broader market movements. These theoretical contributions established diversification as a fundamental principle of investment management.

Research in household finance has subsequently demonstrated that actual investors do not always construct portfolios according to theoretical principles. Goetzmann and Kumar (2008), for example, found substantial variation in equity portfolio diversification among individual investors. Their findings suggest that investors differ considerably in the number and types of securities they hold and that diversification is affected by individual characteristics and investment behaviour.

Behavioural finance provides another important perspective. Kahneman and Tversky's (1979) Prospect Theory demonstrated that individuals do not always evaluate uncertain gains and losses in a fully rational manner. Investors may respond differently to gains and losses, which can influence risk-taking and portfolio decisions. Shefrin and Statman (2000) similarly developed behavioural portfolio perspectives that recognise the influence of psychological factors on portfolio construction.

Investor experience and competence can also influence financial decisions. Graham, Harvey, and Huang (2009) found that investor competence is associated with investment behaviour, suggesting that investors who feel more competent may approach financial markets differently from less experienced participants. Financial knowledge can complement such experience by improving an investor's ability to understand financial products and evaluate risk.

Financial literacy has received increasing attention within household finance. Lusardi and Mitchell (2014) identified financial literacy as an important determinant of financial decision-making, while Van Rooij, Lusardi, and Alessie (2011) found that financial literacy is associated with participation in the stock market. Von Gaudecker (2015) further demonstrated that financial literacy and financial advice can influence household portfolio diversification.

These studies collectively suggest that portfolio diversification cannot be understood solely as a mathematical portfolio-construction exercise. Investors' knowledge, experience and perceptions can influence how they respond to risk and how they allocate their investments.

2.1 Research Gap

The existing literature offers substantial theoretical basis for diversification and a wealth of evidence on financial literacy and investor behaviour. However, the direct link between the use of portfolio diversification methods and the level of perceived risk appears to be poorly addressed. In particular, the analysis of the correlation between diversification and investment experience was used to explore the connection between an investor's financial literacy and their actual investment behaviour. A unique contribution of this research is a focus on the Indian market to assess how individual investors manage uncertainty. The presentation of the research results highlights this link as understudied, particularly in the case of Indian retail investors.

3. Research Methodology

The study employs a quantitative descriptive-analytical research design. The research question was addressed using a questionnaire administered online via Google Forms. Individual investors who take part in financial markets by investing in various asset classes formed the study's population. Specifically, 211 questionnaires were completed and used for the final analysis.

The tool consisted of 28 items related to diversification practices, perceived investment risk, factors influencing investment decisions, and financial literacy. The items were measured using a five-point Likert scale. A pilot testing was done involving 30 respondents resulting in Cronbach Alpha of 87%. The items used showed a high level of reliability.

The study focused on four variables; diversification practices, perceived investment risk, financial-knowledge-based investment decision-making and investment experience. Portfolio diversification was operationalized using items exploring respondents' views on the distribution of their portfolio among various sectors or industries. Perceived investment risk was explored using statements on whether the level of risk encourages diversification.

A One-way ANOVA was performed to establish if financial-knowledge-based investment decision-making varied significantly among the investment experience groups. In addition, a Pearson's correlation was done to establish the relationship between diversification and perceived-risk driven diversification. The two statistical tests were identified in the research presentation as the most appropriate for the study.

4. Results and Data Analysis

4.1 Reliability and Sample

The study is based on 211 valid responses. The research instrument consisted of 28 items and demonstrated an overall Cronbach's alpha of 0.87 during pilot testing. This indicates a satisfactory level of internal consistency for the questionnaire and provides support for proceeding with the analysis.

4.2 Investment Experience and Financial-Knowledge-Based Decision-Making

One-Way ANOVA was conducted to test whether the investment decision-making based on financial kno-

wledge was significantly different among investment-experience groups. The test arrived at F-statistic of 182.25 with $p < .001$. Since p-value is less than the significance level $\alpha = .05$, we reject the null hypothesis.

The implication of this outcome is that the investment experience influences the difference in the use of financial knowledge to make investment decisions. Simply put, investors with different levels of market experience are expected to differ in their application of financial knowledge. Higher market experience enables investors to become more educated about the stock market, its fluctuations, risks, and options.

It is important to note that this outcome does not mean that experience leads to better judgment; rather, it means that the level of decision-making based on financial knowledge differs significantly between investors with differing levels of market experience..

4.3 Relationship Between Diversification and Perceived-Risk-Driven Diversification

Pearson's correlation analysis was conducted to examine the relationship between investors' tendency to spread investments across different sectors and their tendency to diversify when they perceive higher investment risk.

The analysis produced a correlation coefficient of $r = .313$. This represents a positive, weak-to-moderate association between the two measured variables. The direction of the relationship suggests that respondents who report greater diversification across sectors also tend to associate diversification with perceived investment risk.

The result provides a useful behavioural interpretation. Investors who recognise the possibility of losses or uncertainty may respond by spreading their investments rather than relying heavily on one sector or investment category. At the same time, the moderate size of the relationship indicates that perceived risk is not the only factor underlying diversification behaviour. Investment objectives, financial knowledge, experience, confidence, financial circumstances and individual preferences may also contribute to portfolio decisions.

4.4 Hypothesis Testing

The first hypothesis proposed that there is no significant relationship between portfolio diversification and perceived investment risk. The positive correlation observed in the analysis provides evidence of an association between the two variables. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis that a significant relationship exists.

The second hypothesis proposed that there is no significant difference in financial-knowledge-based investment decision-making across investment-experience groups. The ANOVA result of $F = 182.25$ with $p < .001$ provides strong evidence against the null hypothesis. Accordingly, the second null hypothesis is rejected.

The hypothesis results indicate that both diversification-related risk perception and investment experience are relevant to understanding the investment decision-making behaviour observed within the sample.

5. Discussion

The results presented support the argument for the continued value of diversification as a hedge against investment risk. The observed association between sectors diversification and risk-driven diversification

suggests that investors who are aware of potential pitfalls of single-sector investing are more likely to engage in diversification. It is in line with Modern Portfolio Theory, which advocates for diversification as a way to hedge against asset-specific risk.

Moreover, the results contribute to the understanding of investment behaviours within the household finance literature. It is demonstrated that the real-world behaviours of investors are not deterministic, but vary depending on individuals' characteristics. Put differently, the observed behaviours reflect variations in investment knowledge, experience, and attitudes towards risk. As such, differences in diversification behaviours demonstrated by ANOVA should not be dismissed, but rather embraced. Investors operate within the confines of the same financial system, yet behave differently because of their varying levels of financial literacy and tolerance for uncertainty. Thus, it is evident that the application of diversification is contextual and nuanced in spite of being a financially optimum decision.

The identified association between investment experience and financial knowledge, on the one hand, and the extent of diversification – on the other, is explained by the dual role played by experience. Firstly, it allows investors to apply financial knowledge more proficiently, which facilitates the formation of diversified portfolios. Secondly, it enables investors to overcome behavioural barriers that prevent them from engaging in efficient investing.

It is noteworthy, however, that experience does not substitute for financial literacy, but rather complements it. In fact, experience without knowledge can lead to investors overestimating their ability to predict market fluctuations and subsequently engaging in excessive speculation. The results suggest that experience isolates investors – in particular, those with extensive experience – from the influence of alternative variables, including the level of financial literacy and associated cognitive bias.

Ultimately, the results contribute to the theoretical underpinnings of financial economics by supporting the theoretical basis of diversification. In particular, the results help explain the nuances of investment behaviours in accordance with theoretical expectations. By demonstrating that investors make financially optimum decisions by taking into account their personal characteristics, the results add credence to the argument that investment behaviours are informed by both financial and psychological factors. In effect, investment decisions reflect judgements based on financial rationale as well as the psychological determinants of behaviour.

Moreover, the study contributes to the understanding of Indian retail investors by providing evidence on the basis for their diversification choices. In effect, the focus on individual investors allows bridging the gap in the literature on Indian business practices. As indicated by the paper itself, the current understanding of the theoretical basis for diversification in India is limited primarily to institutional investors.

6. Practical Implications

The study results may have an impact on different stakeholders, including individual investors, financial advisors, financial institutions, and policymakers. For individual investors, the conclusion helps explain why it is important to avoid extreme concentration in one area or narrow category. Therefore, investors should consider their financial goals, risk management strategy, time horizon, and current holdings before making any decisions.

The results can affect financial advisors, as they highlight the need for differentiated recommendations. For example, an individual with a limited knowledge of the market may benefit from more thorough explanations of diversification, risk, and allocation principles. At the same time, an experienced investor may be looking for advice on building a more comprehensive portfolio.

Financial institutions and educational organisations can benefit from the conclusions by improving their educational services. For instance, there is a need to teach clients to use a more balanced approach to investing. A financial literacy course should include not only product-related information but also explain key concepts, such as diversification, risk, portfolio allocation, and the importance of market research. The research results also confirm the need for such programmes, as not all clients are financially literate. For policymakers, the study results can become the basis for developing new policies related to financial education. In particular, policymakers can use the findings to improve regulations and initiatives aimed at improving the level of financial literacy among investors. For example, organisations can remind their clients of the importance of diversification and the necessity to analyse financial products in detail before investing.

7. Conclusion

The present study examined portfolio diversification practices and perceived investment risk among individual investors using primary data from 211 respondents. The findings demonstrate that diversification and perceived investment risk are meaningfully related. The positive correlation of $r = .313$ indicates that investors who report greater diversification across sectors also tend to associate diversification with perceived investment risk.

The study further found significant differences in financial-knowledge-based investment decision-making across investment-experience groups, as indicated by the ANOVA result of $F = 182.25$ and $p < .001$. This finding highlights the relevance of practical investment experience in understanding how investors apply financial knowledge.

Overall, the results reinforce the continuing importance of diversification as a risk-management principle while also demonstrating that investor behaviour cannot be explained by diversification alone. Financial literacy, experience, personal preferences and behavioural characteristics are likely to influence how investors interpret and respond to financial risk.

The study therefore recommends greater emphasis on practical financial education, particularly education that helps investors understand diversification, risk assessment and long-term portfolio planning. Financial advisors and institutions can play an important role by providing guidance appropriate to investors' knowledge and experience levels.

The study is subject to limitations. The research is based on a cross-sectional sample of 211 respondents and therefore cannot establish how investment behaviour changes over time. The use of an online questionnaire also means that the findings reflect self-reported perceptions. In addition, the study focuses on selected variables and does not attempt to capture every factor influencing investment behaviour.

Future research could extend the study using larger and more geographically diverse samples and could incorporate additional behavioural variables such as overconfidence, herd behaviour and loss aversion.

Longitudinal research could also examine whether diversification and risk perceptions change during different market conditions.

References

1. Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. *The Journal of Finance*, 55(2), 773–806.
2. Campbell, J. Y. (2006). Household finance. *The Journal of Finance*, 61(4), 1553–1604.
3. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417.
4. Goetzmann, W. N., & Kumar, A. (2008). Equity portfolio diversification. *Review of Finance*, 12(3), 433–463.
5. Graham, J. R., Harvey, C. R., & Huang, H. (2009). Investor competence, trading frequency, and home bias. *Management Science*, 55(7), 1094–1106.
6. Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291.
7. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44.
8. Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77–91.
9. Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), 425–442.
10. Shefrin, H., & Statman, M. (2000). Behavioural portfolio theory. *Journal of Financial and Quantitative Analysis*, 35(2), 127–151.
11. Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.
12. Von Gaudecker, H.-M. (2015). How does household portfolio diversification vary with financial literacy and financial advice? *The Journal of Finance*, 70(2), 489–507.