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## Application of Machine Learning Models for Predicting Mutual Fund Performance in India: A SmartPLS Structural Model Analysis

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### Abstract

In the last decade, the Indian mutual fund industry has seen a tremendous boom, driven by financial awareness, digital investment platforms, and systematic investment planning. There are, however, some behavioural and serviced related factors that continue to affect investor decisions in recommending and adoption of mutual funds. This study aims to explore the factors influencing the willingness to recommend the mutual funds in India using the structural model method with the help of SmartPLS. This study has been conducted on a sample of 400 investors and potential investors from the Indian market. This research explores the impact of the satisfaction levels with customer service, perceived difference between mutual funds and traditional investments, and perceived level of risk on willingness to recommend the mutual fund. The analysis of the structural relationship of the variables was done using partial Least Squares Structural Equation Modelling (PLS-SEM) with the SmartPLS methodology. The results indicate that the attitude towards mutual funds relative to traditional investment significantly affects the recommendation intention, and customer service satisfaction has a moderately significant positive relationship. There is a non-significant correlation between perceived risk level and recommendations behaviour. This work adds to the literature of financial behavior and decision making on investments, by incorporating behavioral finance concepts and concepts of modern predictive modelling. The findings are valuable to financial institutions, mutual funds companies, policy makers and researchers to understand the investors' advocacy and enhance the marketing approaches of mutual funds in India.

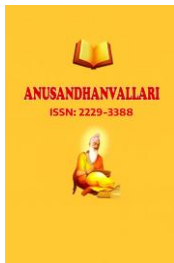
**Keywords:** Mutual Funds, SmartPLS, PLS-SEM, Machine Learning, Investor Behaviour, Financial Services, India, Structural Equation Modelling.

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### 1. Introduction

In India, the mutual fund sector is one of the most dynamic segments of the financial services industry. The rise in financial literacy, technological developments, digitization of investment platform, and the evolution of investor preferences helped to drive mutual fund investment growth in urban and semi-urban areas (Ajzen, 1991). 'The Indian mutual fund industry has seen a significant growth in assets under management (AUM) over the last decade, as per the Association of Mutual Funds of India (AMFI).' However, various behavioural, psychological and service-related factors are still affecting investors' participation and their behaviour of recommending services. Investors consider more than just a mutual fund's financial performance; they also consider its level of

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service, trustworthiness, perceived riskiness, and the firm's comparison to traditional investments like fixed deposits, gold, insurance, and real estate.

The rise of new financial technologies and data analytics has led to the increased adoption of machine learning and predictive modelling methods in investor behaviour analysis. Causal relationships between latent constructs have been investigated in many financial studies with the use of SmartPLS and structural equation modelling. 'The present study examines the effect of the factors' such as customer service satisfaction, perception of mutual funds versus traditional investments, perceived risk level on willingness to recommend the mutual fund investments among the Indian investors. These relationships are analysed using the SmartPLS structural model approach (Zheng et al., 2025; Barberis and Thaler, 2003).

## **2. Review of Literature**

### **2.1 Mutual Fund Investment Behaviour**

Investment behaviour is the process of decision making that individuals undertake when investing money into the various investment options. Demographic, psychological and institutional factors 'have been demonstrated to have an impact on investor behavior in previous research.' In India, financial literacy of investors and awareness have been shown to be important factors influencing mutual fund participation (Mishra et al., 2025). Likewise, (Thanki et al., 2025). found that trust in financial institutions and suggestions from a financial advisor are strong factors that affect investments.

### **2.2 Customer Service Satisfaction and Financial Behaviour**

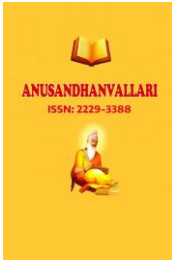
Customer service satisfaction has become a key driver of customer loyalty and customer advocacy in financial services. The SERVQUAL model was proposed by Parasuraman, Zeithaml and Berry (1988) which emphasizes the importance of the service quality dimensions in the customer satisfaction. Mutual fund customer support, transparency, responsiveness and communication have a significant impact on investor trust and recommendation intentions. High satisfaction in service is correlated with continued investing and recommend financial products to others.

### **2.3 Mutual Funds versus Traditional Investments**

The traditional investments like gold, fixed deposit, and real estate have traditionally been the major part of Indian household savings (Markowitz, 1999). But, mutual funds offer diversification, professional management, liquidity and higher potential for returns. Investors are becoming more aware that mutual funds offer better opportunities than traditional savings vehicles because of their flexibility and the growth potential that they offer (Kumar and Singh, 2021). Positive views have potential to boost investors' confidence and recommendations.

### **2.4 Perceived Risk in Mutual Fund Investment**

The perceived risk is a key factor in making investment decisions. When investors are considering investing, they may think about how volatile and uncertain the market is as well as what they might lose if they invest. Theories of behavioural finance state that the level of risk perceived by investors depends on their financial literacy, experience, and psychological biases. When the perceived risk is high, it can decrease investment participation and willingness to recommend investments (Singh and Kaur, 2021; Byrne, 2016).



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## 2.5 SmartPLS and Machine Learning Approaches in Finance

The financial research sector is increasingly leveraging machine learning and predictive modelling tools to predict customer behavior, assess risk, and segment customers. SmartPLS is commonly employed in analyzing complex relationships between latent constructs, in situations where the data distribution assumptions do not hold true. PLS-SEM can be used for exploratory studies, predictive analysis and behavioural finance studies. The determinants of Customer intention and loyalty have been identified using SmartPLS in banking, insurance, stock market and financial behaviour studies (Kahneman and Tversky, 1979).

## 3. Research Gap

Although a few studies have looked at investor behaviour and adoption of mutual funds in India, there is a limited study which combines the constructs of behaviour with the predictive modelling approach of SmartPLS. Literature on the subject concentrates mainly on the demographic determinants while less attention is paid to the analysis of customer service satisfaction and the comparative investment perceptions and the perceived risk analysis at the same time. Also, this study provides limited empirical evidence on the willingness to make the recommendation using PLS-SEM approach with respect to Indian mutual fund investors.

## 4. Objectives of the Study

The major objectives of the study are:

1. To examine the impact of customer service satisfaction on willingness to recommend mutual funds.
2. To analyse the influence of perceptions regarding mutual funds versus traditional investments on recommendation intentions.
3. To investigate the effect of perceived risk level on willingness to recommend mutual funds.
4. To develop a SmartPLS structural model for analysing investor recommendation behaviour.

## 5. Hypotheses of the Study

The following hypotheses were formulated for the study:

**H1:** Customer service satisfaction positively influences willingness to recommend mutual funds.

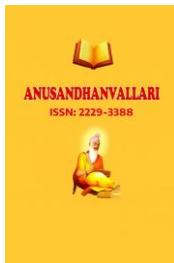
**H2:** Positive perceptions regarding mutual funds versus traditional investments positively influence willingness to recommend mutual funds.

**H3:** Perceived risk level negatively influences willingness to recommend mutual funds.

## 6. Research Methodology

### 6.1 Research Design

The present study is of quantitative and descriptive type to study the behavioural and perception factors which affect the investors' willingness to recommend mutual funds in India. The quantitative research design becomes appropriate in the study because the study has intention of measuring the attitude, perception and behavioural intention of investors numerically and analyse the finding with the help of statistical technique.



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Descriptive study can be used to describe the characteristics, opinions and investment behavior of investors in mutual funds in a systematic way without playing with any of the variables. ‘The research design is cross-sectional which is the data was gathered from respondents at one-time, not over a long time.’ This method will help the researcher to obtain the present perception and attitude of the investors from the financial market in India about the mutual funds. The study also employs descriptive statistics and structural equation modeling with SmartPLS as a statistical analysis technique to analyze the relationships between variables and to test the proposed research model.

## 6.2 Data Collection

Primary data collection is the main source of information for the study. The primary data were collected directly from the investors and potential investors through the use of a structured questionnaire which had been specially designed for the specific purpose of the study. Primary data collection ensures that the information that is collected is original and relevant to the research goals. The questionnaire had two main sections. ‘The first part was demographic data of the respondents which comprises of age, gender, education, occupation, monthly income and investment experience.’ The second section examined variables pertaining to investor perceptions, behavioural determinants and recommendation intentions with respect to mutual funds.

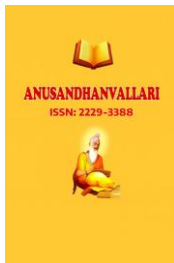
A **Likert five-point scale** was used to measure respondents’ opinions and attitudes towards various statements included in the questionnaire. The scale ranged from:

- 1=StronglyDisagree
- 2=Disagree
- 3=Neutral
- 4=Agree
- 5 = Strongly Agree

The Likert scale was used to measure opinions in a subjective manner and to analyse them statistically. The items in the questionnaire were conceptualized in the light of the literature review and the previous studies conducted on the investment behavior of mutual funds and the intentions of recommending mutual funds. The data collection process was done in both online and offline methods to make sure that respondents from various backgrounds in terms of age and profession participated in the study. Questionnaires were sent out via online distribution channels including email, social media and Google Forms, with offline data collected via direct engagement with the investors and the users of the various financial products.

## 6.3 Sample Size

This study was conducted using 400 respondents. ‘The sample size was sufficient for doing the statistical analysis and the use of SmartPLS for Structural Equation Modelling (SEM). The more people that are studied, the more reliable, valid and generalisable the findings of the research will be.’ The selected sample consists of existing investors, as well as potential investors from various demographic segments in India of mutual funds. Respondents were selected to represent the different categories in all age, income, education, occupation, investment experience. A diversity of demographic groups provides a fullness and representation of the study. For behavioral and financial research studies, which will look at several constructs and relationships, a sample size of 400 is statistically adequate. The sample also meets the recommended criteria for Partial Least Squares Structural Equation Modelling (PLS-SEM) needed for valid estimation and hypothesis testing purposes, namely that there is a sufficient number of observations. The large sample size also helps in minimizing sampling error and greater



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precision in the results. It helps the researcher to come up with useful inferences about investors' behavior and their intentions toward recommending the mutual fund in India.

## 6.4 Sampling Technique

### 6.4.1 Convenience Sampling

The sampling method employed was the convenience sampling which enables the researcher to obtain data from samples that are conveniently available and willing to provide information to the study. The method is practical, inexpensive and time efficient and it is an accepted method in social science and behavioural research. Participants were recruited from investors and individuals through various channels such as online platforms, financial networks, educational institutions, workplaces, and personal contact. Convenience sampling enabled quick collection of data from a large sample size of respondents within the time and resources available. It proved to be very helpful in accessing respondents with varying geographies and demographics.

### 6.4.2 Purposive Sampling

In addition to convenience sampling, purposive sampling was used to make sure relevant respondents were selected for the research. 'The respondents were selected through purposive sampling, where the sample units were selected' according to their awareness about mutual funds, experience in investing in mutual funds, and their interest in financial investment products. This helped to ensure that the responses that were gathered were meaningful and relevant to the research objectives. The purposive approach was useful in identifying persons who have enough knowledge/exposure to investment decisions and/or mutual fund products. It enhanced data collection for analysing behaviour and recommendation intentions in terms of both quality and relevance.

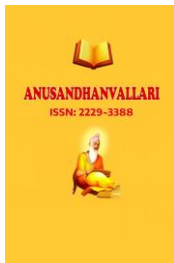
## 6.5 Variables Used in the Study

The present study assesses the behavioural determinants that affects the investors willingness to recommend the mutual funds. Customer service satisfaction, comparison of mutual funds with traditional investments, perceived risk level are considered as independent variables and willingness to recommend mutual funds is considered as dependent variable. Customer service satisfaction is how pleased investors are with the customer service they receive from mutual fund firms, financial advisors and investment platforms, such as how promptly their requests are addressed, the clarity of the information, how well they communicate, how information is used to solve problems and how easy transactions are. It is important to develop investor confidence and trust through effective customer service as this has a positive impact on intent to recommend. The construct "MF vs traditional investments" is the extent to which investors compare the possibility of earning returns, ease of liquidity, safety, diversification, taxes benefits, professional fund management and convenience from investing in a mutual fund against other conventional investment options like fixed deposits, gold, insurance, real estate and post office savings. Investors that believe mutual funds are more beneficial and efficient than other investments are more likely to recommend them to others.

### Conceptual Framework

Customer Service Satisfaction —————>

MF vs Traditional Investments —————> Willingness to Recommend Mutual Funds



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Perceived Risk Level →

**Table 1: Constructs in the Model**

<b>Construct</b>	<b>Role</b>
Customer Service Satisfaction	Independent Variable
MF vs Traditional Investments	Independent Variable
Perceived Risk Level	Independent Variable
Willingness to Recommend Mutual Funds	Dependent Variable

### 6.6 Analytical Tools

Investor behaviour analysis and investigating the factors affecting investor's willingness to recommend MFs using various statistical and analytical tools were done in the study. 'Demographic profile of respondents and general behaviour of investor perception was presented and summarised through descriptive statistics like frequency, percentage, mean and standard deviation. To analyze the relationships between more than one independent and dependent variables simultaneously and test the conceptual framework of the study, Structural Equation Modelling (SEM) was used.' The research uses the software of SmartPLS using partial least squares structural equation modelling (PLS-SEM) for predictive and exploratory research with complex models and latent constructs. SmartPLS was used as a tool to evaluate the reliability, validity and structural relationships between variables of the model (Hair et al., 2025; Ringle et al., 2015).

A second analysis using path analysis was also carried out to assess the direct effects and the causal relationships among constructs like customer service satisfaction, comparison of mutual funds with traditional investment, perceived risk level, and willingness to recommend mutual funds. Moreover, using predictive behavioural modelling, the influence of the selected independent variables was used to understand and predict investor recommendation behaviour. The combination of these analytical tools increased the research findings accuracy, reliability and interpretability.

## 7. Results

### 7.1 Descriptive Statistics

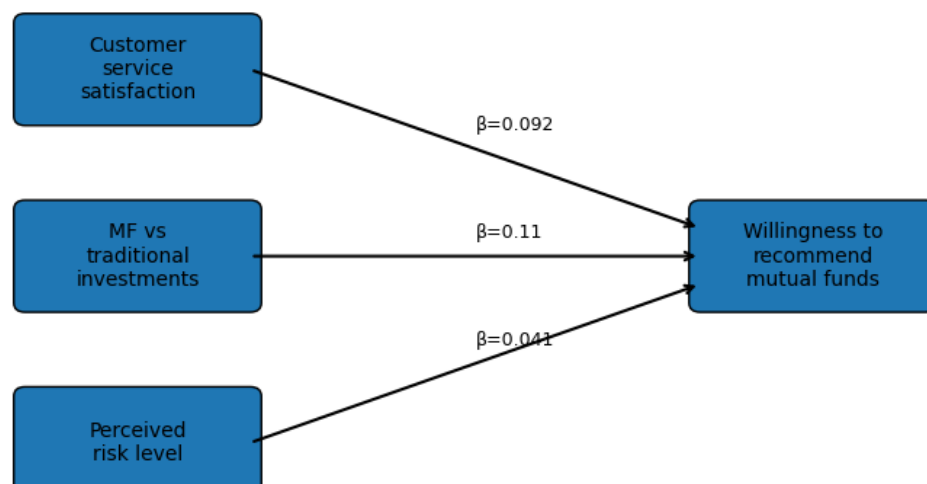
The descriptive analysis shows that the overall perceptions of the respondents of going for mutual funds and customer service quality are moderately positive. There is a relatively high mean on the willingness to recommend mutual funds, indicating favourable investor advocacy behaviour. The descriptive statistics of the study variables are shown below.

**Table 2: Descriptive Statistics of Study Variables**

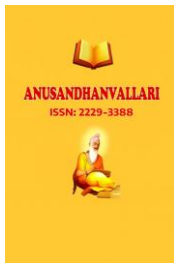
Variable	Mean	Std. Dev.	Minimum	Maximum
Customer service satisfaction	3.393	0.816	1.0	5.0
MF vs traditional investments	3.471	0.763	1.0	5.0
Perceived risk level	3.170	0.933	1.0	5.0
Willingness to recommend mutual funds	3.719	0.980	1.0	5.0

## 7.2 Structural Model Results

The structural model provides significant insights into factors affecting investors' recommendation intention of mutual funds. In the three predictors that are a part of the model, the perceptions of mutual funds with traditional investments are the most influential, showing a positive and statistically significant effect on the recommendation intention. 'This suggests that investors are more apt to suggest mutual funds when they believe that they offer better alternatives to other investments. Customer service satisfaction positively but slightly affects the recommendation behaviour in the model, indicating that the service quality has a significant role in the satisfaction of the customer and consequently in the recommendation behaviour.' However, the effect is small and not statistically significant for perceived risk level, suggesting that risk perceptions do not significantly influence recommendation intentions in the context of the current framework. Overall, the model provides evidence that the investment perceptions of both mutual funds and investors are more important than behavioural satisfaction or risk concerns to encourage investors to recommend mutual funds, thus partially supporting the proposed structural relationships.



**Figure 1: Structural Path Diagram**



The figure 2 shows the model results in terms of structure indicating the relationship between independent variables and investors willingness to recommend mutual funds. Three paths are identified from the customer service satisfaction to recommendation intention, from perceived difference between customer perceptions of the mutual fund and traditional investment to recommendation intention, and from perceived risk level to recommendation intention. The path coefficient of customer service satisfaction on willingness to recommend mutual funds 'shows that there is a positive but weak relationship, meaning that when the customer service is better' the extent to which the investor is willing to recommend mutual funds is slightly greater but not significant. The mutual funds versus traditional investments link is the strongest link ( $\beta = 0.11$ ) suggesting that investors who feel mutual funds are more appealing to consider than traditional investment options are more likely to recommend mutual funds to others. The relationship between perceived risk level and willingness to recommend mutual funds is very weak ( $\beta = 0.04$ ) which shows that the perceived risk plays a negligible role on the recommendation behavior for the present model.

**Table: 3 Structural Path Results**

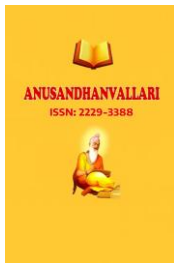
Structural Path	$\beta$	t-value	p-value
Customer service satisfaction → Recommendation	0.092	1.849	0.065
MF vs traditional investments → Recommendation	0.110	2.210	0.028
Perceived risk level → Recommendation	0.041	0.820	0.413

The structural path analysis which explains the influence of selected factors on the investors' willingness to recommend mutual funds. As for the link between Customer Service Satisfaction and Recommendation intention, 'the coefficient is positive ( $\beta = 0.092$ ), and this relationship is only slightly insignificant at 5% ( $t = 1.849$ ,  $p = 0.065$ )' meaning that there is a weak link. The correlation between the mutual funds versus traditional investments and recommendation is positive and statistically significant ' $(\beta = 0.110$ ,  $t = 2.210$ ,  $p = 0.028$ )' which means investors' perception (favourable opinion) of mutual funds compared to traditional investment options significantly increases the likelihood of recommending mutual funds. However, the relationship between perceived risk level and recommendation is positive but not statistically significant ' $(\beta = 0.041$ ,  $t = 0.820$ ,  $p = 0.413$ )' which means that the perceived level of risk has little or no effect on the recommendation behaviour in the current model. Overall, the findings indicate that, service satisfaction and perceived risk are less important in influencing recommendation intentions than is comparative investment perception.

### 7.3 Interpretation of Findings

#### 7.4 Customer Service Satisfaction and Recommendation Behaviour

The path coefficient of customer service satisfaction to willingness to recommend mutual funds is positive ( $\beta = 0.092$ ). While the relationship is modestly significant at 10% level, it suggests that better the quality of customer service, the more likely the customer is to exhibit a positive recommendation behaviour. The results highlight the



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significance of the investor support systems, responsiveness, quality of communication and reliability of service in financial institutions.

### **7.5 Mutual Funds versus Traditional Investments**

The relationship between perceptions about mutual funds and about traditional investments and recommendation intention is positive and 'statistically significant ( $\beta = 0.110$ ,  $p = 0.028$ ).' The finding suggests that investors who think that mutual funds are a better investment choice are more likely to suggest them to others. The discovery emphasizes the rising trend of acceptance of mutual funds in India, acknowledging their diversification benefits, ease of liquidity, and potential for long-term returns.

### **7.6 Perceived Risk Level**

Perceived risk level is found to have a weak, non-significant ( $p = 0.413$ ) relationship with willingness to recommend mutual funds ( $\beta = 0.041$ ). Investors may be more comfortable with financial awareness and the transparency of regulations in the market, which is why this is the case.

## **8. Discussion**

The result of the study is consistent with theories in behavioural finance, and recent studies of financial services usage. This positive effect of customer service satisfaction is linked to relationship marketing theory with a focus of customer trust and satisfaction in service industries. Comparative investment perceptions are a major influence with investors beginning to consider financial products in terms of return, convenience and flexibility. For the savers who know their financial values, mutual funds are slowly taking the place of traditional saving options (Bollen, 1989; Kaur, 2025). The negligible effect of the perceived risk can be attributed to the shift in investors' attitude towards financial markets. The fear of the investments in mutual funds might have been mitigated due to the rising awareness about digital literacy, financial information and also due to the regulatory scrutiny from Securities and Exchange Board of India (SEBI). The low  $R^2$  value suggests that other behavioural and demographic characteristics that are not part of the model, like social influence, trust, financial literacy, investment experience, and income level influence recommendation behaviour.

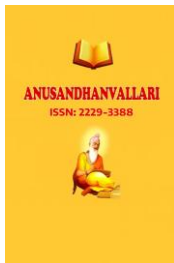
## **9. Implications of the Study**

### **9.1 Managerial Implications**

There is a need to enhance the quality of customer service, transparency and communication between the investors and mutual fund companies to boost investor advocacy. Financial institutions should also inform their investors of the benefits of mutual fund investing over conventional investment options.

### **9.2 Policy Implications**

The results of the research provide important policy and regulatory implications in the financial sector. Regulatory agencies like SEBI should keep on and further accentuate the drive for financial literacy and investor awareness among the investors, especially those who invest in mutual funds. Improved awareness drives can educate the investors about the risk – return trade off, features of products and long-term returns of mutual funds, which can help them make rational and informed decisions when investing. Further, policies to promote transparency and



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better disclosure norms and streamline communication of the mutual fund companies can enhance investor trust and have a positive impact on investor recommendation of mutual fund products (Fornell and Larcker, 1981).

### **9.3 Academic Implications**

Academically, the study would be useful for the existing and vast literature of behavioural finance and financial services, wherein it empirically explores investor behavior in the Indian context of the mutual fund industry. The research employs structural equation modelling with Smart PLS for analyzing the relationship between variables, showing how sophisticated quantitative techniques can be applied to complex relationships between service satisfaction, perceived risk and intention to recommend. 'The current study also offers a methodological guidance for future researchers who would want to use partial least squares (PLS-SEM) in emerging markets context.' Moreover, the results provide opportunities for future research, including cross-regional or cross-investor segment or cross-alternative financial product comparisons to enhance knowledge on behavioural factors affecting investment decisions (Chin, 1998).

### **10. Limitations of the Study**

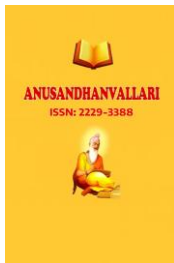
There are some 'limitations of the study that need to be taken into account when interpreting the results. First, the sample size of 400 respondents is sufficient for statistical analysis, but may not be representative of the broad group of mutual fund investors. The results are also not necessarily representative of the broader investor population because of convenience sampling.' In addition, only three independent variables are incorporated into the structural model, which might not reflect the extent of the factors influencing investors' recommendation behavior. Another key aspect of the study is that it is mainly based on perceptions of behaviour, including satisfaction and perceived risk, which do not include objective financial measures. Lastly, as is common with a cross-sectional research design, it does not allow for an analysis of investor behaviour over time, which means that it does not give a complete picture of long-term investor behaviour.

### **11 . Suggestions for Future Research**

This study has a number of 'significant implications for future research. Additional research could include other demographic and psychological factors in order to better understand investor behavior, including age, income, risk tolerance, and attitudes towards money. Moreover, sophisticated machine learning methods, such as random forest, artificial neural networks, and support vector machines can be used to improve prediction accuracy and reveal intricate nonlinear relationships between variables.' The comparison of the urban and rural investors may provide greater insights into contextual and socio-economic differences in investment behaviour. Moreover, longitudinal research designs would enable researchers to study investor perceptions and decision making over time. Additional research areas, including ESG mutual funds, fintech investment applications and digital investment behaviour, will be explored in future research to capture the new trends in the financial services industry.

### **12. Conclusion**

The SmartPLS structural model results show that investment perceptions and customer experience are significant in inducing the recommendation intention of investors in the Indian mutual funds. The perceptions about the



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mutual funds and traditional investments have a moderate positive effect on the recommender's behavior (Pachouri and Johri), whereas customer service satisfaction has a moderate positive effect. The study gives empirical insight into the behavioural determinants of the investor advocacy in Indian mutual fund industry. These insights underscore the need for investor education, engagement, and service quality to boost mutual fund investment growth in India. Structural model of SmartPLS shows that perceptions of investments and customer experience affect the intentions to recommend the use of mutual funds. Empirical evidence is presented on behaviour related factors affecting advocacy of mutual funds among respondents. Predictive behavioural modelling will be even more important in understanding investor decision-making and participation in financial markets as financial technology and machine learning approaches develop and advance over time.

### References

- [1] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- [2] Barberis, N., & Thaler, R. (2003). A survey of behavioral finance. *Handbook of the Economics of Finance*, 1, 1053–1128.
- [3] Bollen, K. A. (1989). *Structural Equations with Latent Variables*. Wiley.
- [4] Byrne, B. M. (2016). *Structural Equation Modeling with AMOS*. Routledge.
- [5] Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295–336.
- [6] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- [7] Thanki, H., Tripathy, N., & Shah, S. (2025). Investors' behavioral intention in mutual fund investments in India: applicability of theory of planned behavior. *Asia-Pacific Financial Markets*, 32(3), 975-996.
- [8] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications.
- [9] Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291.
- [10] Kumar, V., & Singh, P. (2021). Comparative analysis of mutual funds and traditional investment avenues in India. *Indian Journal of Finance*, 15(5), 22–34.
- [11] Markowitz, H. M. (1999). The early history of portfolio theory: 1600–1960. *Financial analysts journal*, 55(4), 5-16.
- [12] Parasuraman, A. B. L. L., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *1988*, 64(1), 12-40.
- [13] Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS 3. *SmartPLS GmbH, Boenningstedt*.
- [14] Mishra, A. K., Bansal, R., Maurya, P. K., Ansari, Y., & Gupta, N. (2025). Effect of service quality on intention to invest in mutual funds: attitude as mediator and awareness as moderator. *Journal of Advances in Management Research*.
- [15] Singh, J., & Kaur, H. (2021). Financial literacy and mutual fund investment decisions among Indian households. *Asian Economic Review*, 63(2), 133–149.
- [16] Kaur, S., Kaur, M., Doda, H., Kumar, N., Thakur, N., Sharma, A., & Balli, S. (2025). Decoding Investment Trends: A Comparative Study of Faculty Preferences in Government and Private Universities of Himachal Pradesh. *Journal of Neonatal Surgery*, 14(30s).
- [17] Pachouri, V., & Johri, S. COMPARISON OF EQUITY MUTUAL FUND SCHEMES FOR YEARS 2020-2024 IN INDIAN MARKETS.
- [18] Zheng, D., Wei, B., Waris, I., & Bhutto, M. Y. (2025). Adoption of AI-powered technologies for food upcycling in green hotels: a technology-organization-environment and natural resource-based view perspective. *British Food Journal*, 1-22.