

Effect Of Mobile Investment App Adoption and AI Financial Personalization on Retail Investors Decision Quality: A Study of Delhi NCR



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Abstract

Digital technologies have transformed the access, evaluation, and management of investment opportunities among individuals by accelerating the development of financial services. This research paper will examine the impact of investment services delivered through technology and customized financial advice on quality of investment choices made by retail investors in Delhi NCR. The research design was quantitative research and the primary data were gathered in a structured questionnaire consisting of 30 measuring items that gave a total of 550 retail investors. IBM SPSS Software is used to analyses the data in descriptive statistics, reliability, KMO and Bartlett tests, Correlation analysis, simple and multiple regression analysis. The measurement scales are reliable and Cronbach alpha values were between 0.902 and 0.930 and overall reliability of 0.972. The value of KMO of 0.986 and significant Bartlett test indicated that the data were suitable to proceed with the further analysis. The results indicated that there were notable positive impacts of both the use of technological investment-platform and individualized intelligent financial services on the quality of investment decisions. The former and the latter explained 68.9 and 63.0% respectively. Their cumulative influence accounted 74.6% of the variance in the quality of decision. Both technology dimensions had strong positive correlation with each other. The paper recognizes the importance of digital financial ecosystems and bespoke advisory systems, and an engaged investors via knowledgeable interaction in the investment decision making processes.

Keywords: FinTech, Digital Finance, Algorithmic Advisory, Investment Behavior, Financial Literacy.

1. Introduction

A rapid advance in financial technology (FinTech) and the incredible shifts in the investment sector have brought about the possibility of individuals joining the financial sector through the assistance of digital platforms. Among them are mobile investment applications that have grown to be a preferred platform of retail investors enabling real-time trades, portfolio management, market analytics and hassle-free transfer of finances using smartphones. The rising usage of internet services, the presence of low-cost mobile phones and digital payment services especially in cities such as Delhi NCR have contributed to the rising use of mobile investment apps in India. Meanwhile, artificial intelligence (AI) applications to the financial sector have introduced novel personalization opportunities that can study customer behavior, investment preferences, investment goals, and appetite to risk in order to offer personalized investment advice. By applying machine learning algorithms, predictive

analytics and automated advisory systems, financial personalization with AI enhances the efficiency of investment platforms when it comes to streamlining complex investment decisions. Such technological advances have altered the way investments are conducted by relying on conventional brokers to self-managed Internet based investments in which retail investors can make prompt and informed capital investments. Thus, the question of researching the effects of the inclusion of mobile investment apps and AI-based personalization of financial services on decision-quality among the retail investors has already turned into the object of a considerable scholarly and practical research.

One of the most rapidly increasing elements of Indian capital market, retail investors are influential in terms of trading volumes and long-term wealth creation. However, with the increase in the availability of financial products, the retail investors

often face the issues of financial literacy, behavioral bias, information overload and market volatility which can adversely impact the quality of investment decisions. Quality of investment decision is how timely, rational, informed, and objective investors are in making investment decisions that achieve their financial goals and mitigate the unwanted risks. The purpose of mobile investment apps is to enhance the quality of decision-making, whereby market information is accessible, research and learning materials can be accessed, analytical tools, and consumer-friendly user interfaces can be accessed with ease, leading to easy management of investments. Further on, AI driven financial personalization utilizes such systems with personalized portfolio suggestion, automatic notifications, risk profile, robot-advisory or foresight investment suggestions in accordance with the individual characteristics of the shareholders. These intelligent features reduce cognitive load, decision-making on the basis of data, and boost investor confidence compared to financial planning. Nonetheless, excessive dependency on the algorithmic suggestions might also bring about the problem of over-dependence, transparency, and privacy as well as the potential bias of the artificial intelligence systems. Thus, although such mobile investment technologies have significant potential to achieve better investment performance, their realizations on better decision performance of retail investors is an empirical question which needs systematic research, especially in the new digital economy like in India.

Delhi NCR is among the key financial and technological centers in India, with a high level of smartphone ownership, growing digital literacy, a growing adoption of FinTech, and a swiftly growing number of young retail investors. The area also offers a proper setting to investigate the joint effect of adoption of mobile investment applications and AI financial personalization on investment decision quality due to the diversity of the population and the extensive adoption of digital infrastructure, as well as the strong engagement in investing in equity, mutual funds, and in digital assets. Though, the adoption of FinTech in the past, has been studied separately, mobile banking, robo-advisory services, and AI applications in financial management, there is still little empirical research conducted on the interconnected relationship between mobile investment app adoption, AI financial personalization, and the quality of decision made by retail investors in India. The current study will investigate how far the use of mobile investment apps and AI-based financial personalization can help to enhance the quality of investment choices among retail investors in Delhi NCR. The results are said to add to the current literature on FinTech by adding empirical data to the study of digital investment

behaviour and practical recommendations on how policymakers, financial institutions, application developers and FinTech companies can create smarter, safer and investor-centric digital financial ecosystems. In addition, the research study adds knowledge on how new technologies could be utilized in order to instill informed investment behaviour, enhance financial inclusion and increase confidence of investors in the ever-changing digital finance in India.

2. REVIEW OF LITERATURE

The fast digitalization of the financial services sector has transformed the means by which retail investors reach out to investment opportunities, assess financial data, and make portfolio decisions in a fundamental way. The use of mobile investment applications has become a significant technological breakthrough since it is capable of providing investors with real-time information about the market, providing transaction services, tracking their portfolio, and providing AI-enabled investment advice. According to existing literature, technological acceptance factors like perceived usefulness, trust, reputation and readiness to use technology are strongly associated with the adoption of mobile investments. Ling et al. (2024) discovered that mobile usefulness, perceived reputation, and positive user attitudes have impact on the intention to adopt mobile investment applications investors, but mobile self-efficacy has a relatively weak effect. Similarly, Yadav and Yadav (2023) showed that performance and effort expectancy, social influence, and facilitating conditions play a critical part in the adoption of mobile mutual fund applications by retail investors. Further, Kumar and Kolte (2023) noted that the high pace of fintech platforms has prompted investors to abandon their traditional advisory services to digital investment platforms, mainly because of the increased convenience, accessibility, and financial literacy. In line with these results, Lu et al. (2024) suggested that digital finance enhances investor performance through better portfolio diversification and lessening behavioural biases, especially in those regions where traditional financial infrastructure has not been well developed. On the same note, Madan Kumar (2026) found that "platform usability", "transparency", "trust", "financial literacy", and "cost efficiency" had a significant effect on the mutual fund selection via digital investment platforms. All these studies put forward a notion that mobile investment applications are no longer a simple means of transaction but rather a financial ecosystem, which has increased accessibility to investment opportunities as well as enabled retail investors to make more intelligent investment choices.

This has been enhanced by Artificial Intelligence (AI) that has enabled provision of very personalized financial services that could analyses the preferences, behavioral habits, risk tolerance and market forces to offer bespoke investment advice. Williams et al. (2025) highlighted that AI-based personalization combines the principles of machine learning, natural language processing, and behavioral finance to provide adaptive financial advice that is minimally biased by cognitive effects and enhances client satisfaction and portfolio performance. On the same note, Xing (2025) stated that AI helps retail investors because it can handle a lot of financial data in a short time, helping them to select stocks objectively, data-driven, but the issues are transparency, data privacy, and accountability of the algorithms. Gupta and Singh (2024) pointed out that perceived usefulness has an impact on investor satisfaction with “AI-assisted” trading applications, with the quality of information being a significant mediating variable. Moreover, Pravin et al. (2025) also noted that “AI-driven” solutions, like robo-advisors and intelligent recommendation, can have a positive impact on investor behaviour in that they can persuade investors to engage more in financial markets, but as the researcher’s state, overreliance on algorithmic recommendation can lead to investors being exposed to more financial risk. Goel (2025) discovered that when AI platforms are transparent, easy to use and provide personalized financial advice, investors in Delhi NCR slowly shift to scepticism to trust. Similarly, Sarjas and Velmurugan (2026) determined perceived and personalized usefulness, and technological attitudes are critical in enhancing AI adoption among retail investors. Sharma and Gupta (2025) further elaborated that the development of FinTech 4.0 has empowered consumer acceptance of AI-based financial technologies by promoting fintech literacy, trust, and technological awareness. The overall conclusion of these studies is that AI financial personalization is emerging as a key capability that enhances customer engagement, boosts investor confidence, and promotes personalized wealth management.

Whereas past research has widely focused on either adoption of mobile investment applications or AI-powered financial services alone, there is a relative dearth of research on how the two concepts interact to affect the quality of decisions by “retail investors”, specifically in the context of the fast-growing investment ecosystem in Delhi NCR. Available literature indicates that adoption of technology enhances performance of investment in terms of accessibility, speed of information processing, increased diversification and increased financial literacy, but the quality of investment decisions is not limited by technological adoption but rather, it is a product of the quality, relevance, personalization

and trustworthiness of the recommendations provided by the AI systems. Ihwandi et al. (2025) reasoned that technology and big data contribute to financial decision making because of the increased financial literacy, and noted that the technological tools would be more effective when the users were financially literate. Similarly, Mishra (2025) found that robot-advisors and machine learning models enhance the quality of investment decisions but highlighted that behavioral biases remain pertinent in the context of machine learning and technology. Kumar et al. (2025) also established that the increment in the application of AI has greatly increased the involvement of retail investors in the Indian stock market through facilitation of accessibility and efficiency in the market. However, a significant number of studies also admit about the unresolved issues related to algorithmic transparency, ethical AI application, cybersecurity, privacy protection, and overreliance of investors on automated recommendations. This leaves a large research gap in terms of the combined effect of the use of mobile investment applications and AI financial personalization on the quality of the decisions made by retail investors in a particular metropolitan setting like Delhi NCR. Filling this research gap will not only add to the technology acceptance and behavioral finance literature, but also to practical implications that can be applied to fintech companies, investment platforms developers, financial institutions, regulators and policymakers who may want to encourage responsible AI-driven investment behaviors and enhance the outcomes of retail investments.

3. RESEARCH OBJECTIVES

- a) To examine the impact of mobile investment Apps on the quality of decisions of retail investors in Delhi NCR.
- b) To test the impact of the AI Financial Personalization on the quality of the decisions made by the retail investors.
- c) To explore how mobile adoption of investing Apps and AI financial personalization affect the quality of decisions among retail investors.
- d) To analyses the correlation between the mobile investment App Adoption and AI Financial Personalization of retail investors.
- e) To examine how digital investment apps and AI-enabled personalized financial services facilitate effective, timely and informed investment decision.

4. RESEARCH HYPOTHESES

H₁: There is a relationship between Mobile Investment App Adoption and Retail Investors Decision Quality.

H₂: There is a positive relationship between AI-Financial Personalization and Retail Investors Decision Quality.

H₃: Mobile Investment App Adoption & AI Financial Personalization have a significant positive effect on Retail Investors' Decision Quality.

H₄: There is a significant positive correlation between Mobile Investment App Adoption (MIAA) and AI Financial Personalization (AIFP).

5. RESEARCH FRAMEWORK

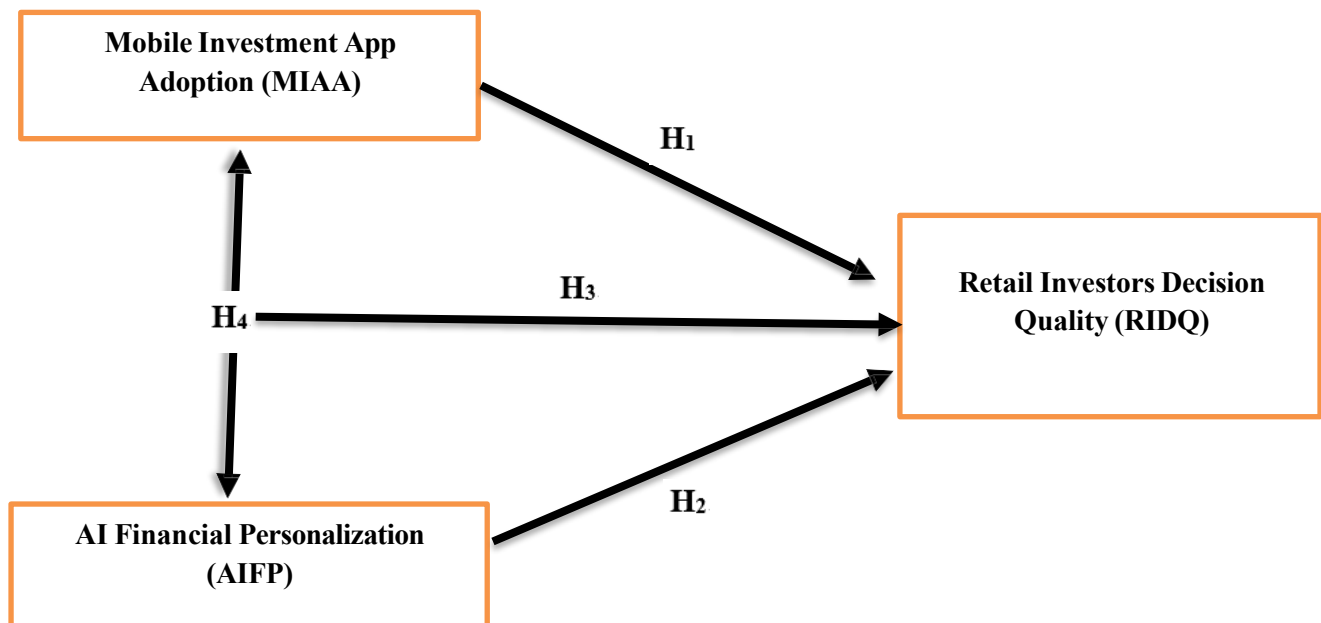


Figure 1. Conceptual Framework of the Study

The model represents suggested interconnections between Mobile Investment App Adoption (MIAA), AI Financial Personalization (AIFP) and the quality of decisions made by Retail Investors (RIDQ). Mobile Investment App Adoption and AI Financial Personalization can be viewed as the independent variables in this case, whereas Retail Investors Decision Quality is viewed as the dependent variable. The arrow with H₁ indicates the immediate effect of the Mobile Investment App Adoption on the quality of the decision made by the Retail Investors. It hypothesizes that increased use of mobile investment apps increases the capacity of investors to get real-time market information, transact business efficiently, track a portfolio and make timely investment decisions. The arrow marked H₂ is the direct impact of the AI Financial Personalization on Decision Quality. This suggests that, through AI-based personalized suggestions, predictive analysis, risk evaluation, and personalized The research design was also quantitative, as it was an empirical study to analyze the relationships between Mobile Investment App Adoption (MIAA), AI-Financial Personalisation (AIFP), and Retail

financial insights, investors can make more informed and logical investment choices.

The dotted arrow H₃ reveals an interaction between Mobile Investment App Adoption and AI Financial Personalization with the Retail Investors Decision Quality, so when the combination of effects of the two technological factors is also taken into account, there is likely to be a larger positive contribution to the effect that each factor separately contributes. The two-way arrow at H₄ indicates the positive relationship between the use of mobile investment applications and AI Financial Personalization whereby the higher is mobile investment applications adoption, the more is its use of AI-based personalized financial services which ultimately results in higher quality of investment decisions.

6. RESEARCH METHODOLOGY

Investors Decision Quality (RIDQ). The experiment was carried on in Delhi NCR, one of the biggest financial and technological centers that is currently experiencing the increased use of digital investment

platforms and AI-driven financial services. This data was gathered using the assistance of 550 retail investors using 30-item measurement and 10 item measures each of MIAA, AIFP and RIDQ, in the form of a structured adopted questionnaire. The demographic factor respondents involved “age”, “gender”, “education”, “occupation” and “experience” in investments. The research design was non-probability sampling, whereby retail investors were the respondents of interest; the paper however, fails to clearly indicate which non-probability sampling method was employed. The IBM SPSS Software used to analyze responses. The characteristics of the

respondents were summarized with descriptive statistics, and Cronbach alpha used to check on internal consistency and (KMO) and Bartlett Test of Sphericity to check the sampling adequacy and factorability. The relationship between MIAA and AIFP was analyzed by Pearson correlation and simple linear and multiple linear regression were performed to test the hypothesis and to identify the effect of MIAA and AIFP on RIDQ either separately or jointly.

6.1 Analysis and interpretation of Data

Table 1. Demographic variables: descriptive statistics (N = 550)

Variable	N	Min.	Max.	Mean	S.D.	Variance	Skewness	Std. Error	Kurtosis	Std. Error
Age Group	550	1	5	2.54	1.183	1.400	0.542	0.104	-0.514	0.208
Gender	550	1	2	1.36	0.481	0.231	0.577	0.104	-1.674	0.208
Education	550	1	5	3.21	1.095	1.199	-0.271	0.104	-0.361	0.208
Occupation	550	1	5	2.54	1.126	1.269	0.637	0.104	-0.514	0.208
Investment Experience	550	1	5	2.55	1.191	1.418	0.508	0.104	-0.681	0.208
Valid N (listwise)	550									

Source: IBM SPSS Output

Table shows the “Descriptive statistics” of the demographic characteristics of the individuals who responded (n=550) based on 550 valid responses. The average scores show that the majority of respondents were of age 2534 years (Mean = 2.54), were of graduate level education (Mean = 3.21) and had 1-3 years of experience of investing (Mean = 2.55). The values of standard deviation vary between 0.481 and 1.191 indicating the moderately high

variability of respondents. The values of skewness are between acceptable levels (± 1), which means that the distributions are normal, and the value of kurtosis is less than the critical value of ± 2 , which proves that there is no severe violation of the normality. Thus, the statistic information can be utilized in future inferential testing like the correlation, regression, as well as ANOVA (Hair et al., 2010; Field, 2018).

6.1.1 Table 2. Distribution of Respondents by Gender

Gender	Frequency (Respondents)	Percentage (%)
Male	351	63.82%
Female	199	36.18%
Total	550	100.00%

Source: IBM SPSS Output

6.2. Reliability Analysis

Table 3: Cronbach Study Variable Analysis

S. No.	Variable Name	Cronbach Value's	No. of Items	Sample Size
1	Mobile Investment App Adoption	0.902	10	550
2	AI Financial Personalization	0.925	10	550
3	Retail Investors Decision Quality	0.930	10	550
4	Overall Reliability	0.972	30	550

Source: IBM SPSS Output

Table shows that there is high internal consistency of variables. The values lie between 0.902 and 0.930 and the total coefficient of reliability is 0.972 which is greater than the acceptable value of 0.70. Results support the measurement scales have high levels of

6.3. Validity

reliability and suitability to carry out further statistical tests which include correlation analysis and regression analysis (Cronbach, 1951; Hair et al., 2010).

Table 4: KMO and Bartlett's Test of Sampling Adequacy

Test	Measure	Value
Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy	KMO Value	0.986
Bartlett's Test of Sphericity	Approx. Chi-Square	11,773.084
	Degrees of Freedom (df)	435
	Significance (p-value)	0.000

Source: IBM SPSS Output

The KMO of 0.986 consists of excellent sampling adequacy which verifies that the manipulated data is most suitable when it comes to factor analysis. The results are statistically significant i.e. ($\chi^2 = 11773.084$, $p < 0.001$) and there are strong

intercorrelations between the variables. The results confirm the validity of the construct structure and accept the analysis to research (Hair et al., 2010; Kaiser, 1974).

7. HYPOTHESIS TESTING

7.1 H₁: There is a relationship between Mobile Investment App Adoption and Retail Investors' Decision Quality.

Table 5: Model Summary for Retail Investors' Decision Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	0.830	0.689	0.689	3.54403	0.689	1215.838	1

Dependent Variable: RIDQ (Retail Investors' Decision Quality)

Source: IBM SPSS Output

There is a high correlation between the predictor and the Quality of the Decision by the Retail Investors ($R = 0.830$). The 0.689 value of R^2 implies that the model describes 68.9 percent of the variation in decision

quality and thus the explanatory power of the model is very high. Adjusted R^2 is equal to 0.689 and the fact that the F-change has an equal value to 1215.838 signifies high overall regression effect (Hair et al., 2010).

Table 6: ANOVA for Decision Quality of Retail Investors

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15,271.090	1	15,271.090	1215.838	0.000***
	Residual	6,882.954	548	12.560	—	—
	Total	22,154.044	549	—	—	—

Dependent Variable: RIDQ (Retail Investors' Decision Quality)

Predictor: MIAA (Mobile Investment App Adoption)

Source: IBM SPSS Output

According to the results of the ANOVA, the adoption of Mobile Investment Apps is a significant predictive of the quality of Retail Investors decision. The regression model is significant with $F(1,548) = 1215.838$, $p < 0.001$, and this indicates the fact that

the explained portions of the variance are significantly higher than unexplained portion. Thus, the impact of MIAA on the RIDQ is substantial, which justifies the suggested connection between the adoption of mobile investment application and quality of the decision.

Table 7: Coefficients of Mobile Investment App Adoption on Retail Investors' Decision Quality

Model	Variable	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
1	Constant	9.869	0.740	—	13.333	0.000***
	MIAA	0.724	0.021	0.830	34.869	0.000***

Dependent Variable: RIDQ

Independent Variable: MIAA

Source: IBM SPSS Output

Regression Equation

The regression equation is:

$$\text{RIDQ} = 9.869 + 0.724(\text{MIAA})$$

The findings substantiate H1 well since the regression coefficient of MIAA is positive ($B = 0.724$) and has a statistically significant t-value ($t = 34.869$, $p < 0.001$). Thus, H1 is accepted and H0 rejected. Adoption of Mobile Investment App has positive impact on "Decision Quality" of Retail Investors. In real-world use, retail customers that utilize mobile

investment applications more would exhibit higher quality of investment choices. This conclusion agrees with the rule that very high positive regression coefficients mean there exists a predictive relationship between independent and dependent variables.

7.2 H₂: There is a positive relationship between AI-Financial Personalization and Retail Investors Decision Quality.

Table 8: Model Summary for Retail Investors' Decision Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	0.794	0.630	0.630	3.86649	0.630	933.905	1

Dependent Variable: RIDQ (Retail Investors' Decision Quality)

Source: IBM SPSS Output

There is a high correlation between the predictor and the Decision Quality of Retail Investors as indicated by $R = 0.794$. The value of R^2 is 0.630 which means that the model accounts 63.0% of the difference in

decision quality. Adjusted R- Square stands at 0.630 and these values show that the model remains constant whereas F change value is 933.905, which shows that the model is significant.

Table 9: ANOVA for AI Financial Personalization and Retail Investors' Decision Quality

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,961.602	1	13,961.602	933.905	0.000***
	Residual	8,192.441	548	14.950	—	—
	Total	22,154.044	549	—	—	—

Dependent Variable: RIDQ (Retail Investors' Decision Quality)

Predictor: AIFP (AI Financial Personalization)

Source: IBM SPSS Output

The results of the ANOVA suggest that Retail Investors Decision Quality can be significantly predicted by AI Financial Personalization. The regression model shows statistical significance, $F(1,548) = 933.905$, $p < 0.001$ showing that the explained variance is majorly higher than the

unexplained variance. Therefore, AIFP has a significant effect on RIDQ, indicating that personalized AI-driven financial recommendations can contribute positively to investors' decision quality.

Table 10: Coefficients of AI Financial Personalization on Retail Investors' Decision

Model	Variable	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
1	Constant	6.921	0.938	—	7.380	0.000***
	AIFP	0.820	0.027	0.794	30.560	0.000***

Dependent Variable: RIDQ

Independent Variable: AIFP

Source: IBM SPSS Output

Regression Equation:

The regression equation is:

$$\text{RIDQ} = 6.921 + 0.820(\text{AIFP})$$

The outcomes are quite effective support of H2. AIFP is positive ($B = 0.820$), while the beta is $\beta = 0.794$. Additionally, the correlation is significant ($t = 30.560$, $p < 0.001$). Thus, the Hypothesis H2 is accepted/supported. Retail Investors Decision Quality has a strong positive correlation with AI Financial Personalization, which

is statistically significant. Improved investment decisions are related to higher degrees of customized AI-based financial data, and suggestions.

7.3 H₃: Mobile Investment App Adoption & AI Financial Personalization have a significant positive effect on Retail Investors' Decision Quality.

Table 11: Model Summary for Retail Investors' Decision Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	0.864	0.746	0.745	3.20506	0.746	804.829	2

Dependent Variable: RIDQ

Source: IBM SPSS Output

The model shows that correlation between the two predictors and Decision Quality of Retail Investors, $R = 0.864$. The $R^2 = 0.745$ indicates that the predictors

collectively accounted 74.6 percentage of RIDQ and the adjusted $R^2 = 0.745$ indicates strong explanatory power. The F-change value of 804.829 shows high model effectiveness.

Table 12: ANOVA for Mobile Investment App Adoption and AI Financial Personalization on Retail Investors' Decision Quality

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16,535.041	2	8,267.521	804.829	0.000***
	Residual	5,619.002	547	10.272	—	—
	Total	22,154.044	549	—	—	—

Dependent Variable: RIDQ**Predictors:** MIAA, AIFP**Source:** IBM SPSS Output

The results of ANOVA indicate that a combination of MIAA and AIFP significantly predict the Decision Quality of Retail Investors. The regression model has a statistically significant value, $F(2, 547) = 804.829$, ($p < 0.001$), which means the overall number of predictors is positive and accounts for a significantly

higher amount of variance than the unexplained error. Thus, the combination of mobile investment apps and AI financial personalization has a big influence on the quality of the decisions that investors make (Hair et al., 2010).

Table 13: Coefficients of MIAA and AIFP on Retail Investors' Decision Quality

Model	Variable	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
1	Constant	5.347	0.784	—	6.823	0.000***
	AIFP	0.390	0.035	0.377	11.092	0.000***
	MIAA	0.469	0.030	0.538	15.828	0.000***

Dependent Variable: RIDQ**Predictors:** MIAA, AIFP**Source:** IBM SPSS Output**Multiple Regression Equation**

The regression equation is:

$$\text{RIDQ} = 5.347 + 0.390(\text{AIFP}) + 0.469(\text{MIAA})$$

The results are very favorable of H3. Both independent variables are positively regressed and the t-values are significant:

- AIFP: $B=0.390$, $\beta=0.377$, $t=11.092$, $p < 0.001$

- MIAA: $B=0.469$, $\beta=0.538$, $t=15.828$, $p < 0.001$

Hence, there are significant positive contributions by both MIAA and AIFP to RIDQ in the regression model when they are incorporated together. This shows the acceptance/support of H₃.

These findings are highly empirical data towards the thesis, that Mobile Investment App Adoption and AI

Financial Personalization can collaboratively improve the Decision Quality of Retail Investors, with MIAA demonstrating the relatively greater effect. This observation confirms H₃ shows the significance of access to digital investments and the use of AI-based personalization in enhancing retail investment decisions.

7.4 H₄: There is a significant positive correlation between Mobile Investment App Adoption (MIAA) and AI Financial Personalization (AIFP).

Table 14: Correlation between MIAA and AIFP

Variables	Statistics	MIAA	AIFP
MIAA	Pearson Correlation	1.000	0.774**
	Sig. (2-tailed)	—	0.000
	Sum of Squares and Cross-products	29,140.698	19,044.484
	Covariance	53.080	34.689
	N	550	550

AIFP	Pearson Correlation	0.774**	1.000
	Sig. (2-tailed)	0.000	—
	Sum of Squares and Cross-products	19,044.484	20,775.653
	Covariance	34.689	37.843
	N	550	550

Note: Correlation is significant at the 0.01 level (2-tailed).

Variables: MIAA (Mobile Investment App Adoption) and AIFP (AI Financial Personalization)

Source: IBM SPSS Output

The analysis shows a very strong positive association between the Mobile Investment App Adoption (MIAA) and AI Financial Personalization (AIFP) with a correlation coefficient of ($r = 0.774$). The correlation is significant at a value of $p < 0.001$ on a sample of 550 respondents. This shows that an increased usage of mobile investment Applications relates to increasing AI-finished financial personalization. The size indicates a positive relationship between the variables which agree with the conventional interpretation of any correlation coefficient (Hair et al., 2010). Thus, there is a strong empirical line of evidence supporting H4 and the supporting hypothesis is supported.

8. RESULTS AND DISCUSSION

The results indicate that Mobile Investment App Adoption (MIAA) and AI Financial Personalization (AIFP) greatly improve the Decision Quality (RIDQ) of Retail Investors, which is high among the 550 participants. The measurement scales were highly reliable with Cronbach alpha spanning 0.902-0.930 and with overall of 0.972, and the KMO value of 0.986 and high Bartlett test proved the good sampling adequacy and individual test suitability to undertake factor analysis. H1 was well supported by the results of regression since MIAA was a positive predictor of RIDQ ($\beta = 0.830$, $B=0.724$, $p<0.001$) and explained its variance ($\beta = 0.689$). It was also supported that H2 held a significant positive impact on RIDQ such that AIFP had a significant effect on 63.0% variance ($\beta=0.794$, $B=0.820$, $p<0.001$). The multifactor model had a greater explanatory power and was able to explain 74.6 percent of the variance in RIDQ ($R^2=0.746$) where both MIAA ($\beta=0.538$) and AIFP ($\beta =0.377$) significantly contributed to the variability ($p<0.001$). Moreover, MIAA and AIFP had a high positive correlation ($r=0.774$, $p<0.001$), which confirms H4. On balance, the findings substantiate that the availability of the digital investment and the personalization of decisions determined by AI have a significant joint impact on enhancing the quality of decision-making by retail investors.

9. CONCLUSION

This paper investigated how the Mobile Investment App Adoption (MIAA) and AI Financial Personalization (AIFP) affect the Retail Investors Decision Quality (RIDQ) in Delhi NCR. The results present a solid empirical study showing that the digital investment technologies have emerged as significant factors in quality of retail investment decisions. The measurement scales exhibited high internal-consistency based on 550 valid responses, and having all Cronbach alpha of between 0.902 and 0.930 and a reliability of 0.972. The value of KMO (0.986) and significant Bartlett test also indicated the appropriateness of the data to be analyzed statistically. The regression analysis revealed that MIAA had a positive effect on RIDQ ($\beta= 0.830$, $p<0.001$), explaining 68.9% of the variance in decision quality. Similarly, AIFP showed a significant positive influence on RIDQ ($\beta = 0.794$, $p< 0.001$), explaining 63.0% of its variance. These results affirm that the easy access to the information about investment, portfolio management, information about the market (in real-time), personalized advice, and AI-powered financial insights can guide investors in making more informed and effective investment decisions considerably.

Combined regression results showed a total of MIAA and AIFP indicated 74.6% of the total variance of Retail Investors in Decision Quality ($R^2=0.746$), indicating that these two variables are significant explicators. Both MIAA ($\beta=0.538$) and AIFP ($\beta = 0.377$) were also statistically significant predictors when used concurrently, with MIAA demonstrating the relatively better significance. The high positive correlation of MIAA and AIFP ($r = 0.774$, $p< 0.001$) also suggests that the higher the level of mobile investment application adoption, the higher the level of AI-based personalization can be used. Therefore, each of the four hypothesized theories turned out to be correct, which proved the relevance of mobile investment applications and AI-enhanced personalization as determinants of the quality of decisions of retail investors. Concluding the study, it can be stated that the combination of publicly-available online investment tools and individually-tailored artificial intelligence will help enhance the capacity of investors to process financial data and make informed and timely investment decisions. Nonetheless, the result supports as well the need to

create investor-focused digital ecosystems, which focus on reliability, transparency, safety, and responsible AI use. In the case of FinTech firms, financial institutions, application developers, and policymakers, the findings indicate the necessity to develop technologically-enhanced but reliable investment platforms that will increase investor trust and improve the quality of decision making and help the Indian digital investment ecosystem evolve further.

10. SUGGESTIONS FOR FUTURE RESEARCH

The extension of this research in the future could be conduct of a study that will investigate the relationship between the Mobile Investment Application Adoption, AI Financing Personalization, and the quality of decisions made by Reliable Investors among various geographical and demographic areas. Because the current research is confined to the city of Delhi NCR, it might be beneficial to conduct comparative research of other metropolitan cities, Tier-II and Tier-III cities, and also rural regions of the country, which might help obtain broader information about the generalizability of the findings. It is also possible that future researchers will choose a longitudinal research design to investigate how the perceptions and decision quality of the investors will change with time as investment technologies driven by AIs will develop. Lastly, the mediating and moderating variables of financial literacy, investment experience, trust in the investor, perceived risk, readiness to use technology, financial self-efficacy and behavioral biases could be introduced in the future, which would give a more extensive model. The other potential methods that can be employed to comprehend why the investors trust or do not trust the artificial intelligence-based recommendations are the qualitative ones, i.e., interviews and focus groups. A comparison of the various kinds of investment applications and AI-driven services like robot advisors, algorithmic recommendations, and personalized portfolio management systems, can also be made by the researchers. Lastly, research must explore questions in the field of future relating to data privacy, algorithm transparency, cybersecurity, ethical AI and over-reliance with automated recommendations towards further proving the responsible and sustainable use of AI to cement retail investment decisions.

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ANNEXURE

Questionnaire Design

Construct	Source of Item Used	Item Code	Items
Mobile Investment App Adoption (MIAA)	Ling et al. (2024); Yadav & Yadav (2023); Kumar & Kolte (2023); Madan Kumar (2026)	MIAA1	I regularly use a mobile investment app.
		MIAA2	The app is easy to use.
		MIAA3	I can invest anytime using the app.
		MIAA4	The app saves my investment time.
		MIAA5	I trust my mobile investment app.
		MIAA6	The app provides useful investment information.
		MIAA7	I use the app to track my investments.
		MIAA8	The app makes investing convenient.
		MIAA9	I prefer investing through mobile apps.
		MIAA10	I intend to continue using mobile investment apps.
AI Financial Personalization (AIFP)	Williams et al. (2025); Xing (2025); Gupta & Singh (2024); Goel (2025); Sarjas &	AIFP1	AI gives me personalized investment suggestions.
		AIFP2	AI understands my investment needs.

	Velmurugan (2026)	AIFP3	AI recommends suitable investment options.
		AIFP4	AI helps manage my investment risk.
		AIFP5	AI provides timely investment advice.
		AIFP6	AI improves my investment planning.
		AIFP7	AI recommendations match my financial goals.
		AIFP8	AI increases my confidence in investing.
		AIFP9	AI provides accurate financial insights.
		AIFP10	I rely on AI-based personalized investment recommendations.
Retail Investors Decision Quality (RIDQ)	Lu et al. (2024); Mishra (2025); Ihwandi et al. (2025); Pravin et al. (2025)	RIDQ1	I make informed investment decisions.
		RIDQ2	I compare investment options before investing.
		RIDQ3	I make investment decisions confidently.
		RIDQ4	My investment decisions are well planned.
		RIDQ5	I avoid emotional investment decisions.
		RIDQ6	I consider risks before investing.
		RIDQ7	I am satisfied with my investment decisions.
		RIDQ8	I choose investments that meet my financial goals.
		RIDQ9	I make investment decisions based on reliable information.
		RIDQ10	I believe I make quality investment decisions.