Ai-Driven Personal Finance Awareness in Emerging Digital Economies: Evidence from India

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***Abstract*—Artificial intelligence (AI) has become an integral component of personal finance applications, particularly in emerging digital economies such as India, where mobile-based financial services are widely adopted. These applications contain AI-driven features such as spending summaries, bill reminders, saving nudges, credit insights, and investment recommendations to support users in managing their finances. However, empirical evidence examining the effectiveness of these features from a user-centric perspective remains limited. This study investigates the role of AI-driven personal finance applications in enhancing financial awareness, saving behaviour, and trust perceptions among Indian users. A quantitative, survey-based approach was adopted, and primary data were collected from 161 respondents using popular personal finance applications, including Google Pay, CRED, Jupiter Money, Fi Money, Groww, and Zerodha. Descriptive statistical techniques were employed to analyse application usage patterns, engagement with AI-driven features, and users' perceptions. The findings indicate that AI-enabled tools contribute positively to financial awareness and short-term financial management, particularly through features such as spending summaries and bill reminders. However, their influence on consistent saving behaviour and disciplined budgeting remains moderate. The results also reveal cautious trust in AI-generated financial recommendations alongside persistent privacy concerns. The study provides empirical insights from the Indian digital finance ecosystem, highlighting both the potential and current limitations of AI-driven personal finance applications.**

***Index Terms*—Artificial Intelligence, Personal Finance Applications, Financial Awareness, FinTech in India, Digital Payments, Saving Behaviour, Trust and Privacy.**

I. INTRODUCTION

The rapid advancement of artificial intelligence (AI) has significantly reshaped personal finance management by enabling automated analysis, personalisation, and real-time decision support. AI-powered personal finance applications now assist users with spending analysis, budgeting, bill reminders, saving nudges, credit insights, and investment guidance, aiming to simplify financial decision-making and enhance financial awareness.

India provides a particularly relevant context for examining AI-driven personal finance tools. The widespread adoption of smartphones, the success of the Unified Payments Interface (UPI), and the expansion of digital financial services have led to extensive use of mobile applications for everyday financial activities. Applications such as Google Pay, PhonePe, and emerging fintech platforms offering budgeting, credit, and investment features have become integral to users' financial routines, embedding AI-driven insights into daily transactions.

Financial awareness is a key determinant of effective personal financial management, as it enables individuals to understand their spending patterns, manage their obligations, and make informed decisions about saving and investing. In emerging digital economies, gaps in financial literacy persist despite increasing access to digital tools. AI-driven personal finance applications aim to address this gap by providing automated summaries, reminders, and personalised nudges. However, the extent to which users actively engage with these features and experience meaningful improvements in financial behaviour remains insufficiently explored.

Existing research on AI in finance has predominantly focused on institutional applications such as banking automation, fraud detection, and robo-advisory systems. User-centric empirical studies examining AI-enabled personal finance applications, particularly in the Indian context, remain limited. Moreover, concerns related to trust, transparency, and data privacy continue to influence user adoption and reliance on AI-generated financial recommendations.

Against this backdrop, the present study examines the role of AI-driven personal finance applications in enhancing financial awareness, saving behaviour, and trust perceptions among Indian users. Using a quantitative, survey-based approach, the study analyses user engagement with AI-enabled features across different categories of personal finance applications. By providing user-centric empirical evidence from India's digital finance ecosystem, this research contributes to a deeper understanding of the opportunities and limitations of AI-driven personal finance tools in emerging digital economies.

II. LITERATURE REVIEW

Recent advancements in artificial intelligence (AI) have significantly influenced the development of digital financial services, particularly in the domain of personal finance management. AI-driven techniques such as machine learning, predictive analytics, and automated recommendation systems are increasingly integrated into financial applications to assist users in budgeting, spending analysis, credit monitoring, and investment decision-making. Prior studies indicate that AI has the potential to reduce information overload and improve financial decision efficiency by transforming complex financial data into simplified insights.

Several studies have examined the role of digital payment platforms in enhancing financial awareness and daily money management. Research on mobile payment applications suggests that features such as transaction histories, spending summaries, and automated reminders improve users' visibility into their expenses and promote short-term financial discipline. However, these studies also highlight that the convenience of digital payments may encourage impulsive spending if not accompanied by adequate financial guidance.

The emergence of AI-driven budgeting tools, robo-advisors, and investment platforms has further expanded the scope of personal finance applications. Existing literature reports that automated insights and personalised nudges can positively influence saving behaviour and investment planning, particularly among younger users. Nevertheless, behavioural finance perspectives emphasise that AI-based tools cannot fully replace human judgment, as financial decisions are often shaped by psychological biases, risk perceptions, and individual preferences.

Trust and privacy concerns remain critical factors affecting user adoption of AI-enabled financial applications. Previous studies suggest that while users appreciate the efficiency and personalisation offered by AI systems, concerns regarding data security, transparency of algorithms, and misuse of personal financial information limit long-term reliance on automated recommendations. These concerns are particularly relevant in emerging digital economies, where regulatory awareness and digital literacy levels vary widely among users.

Despite the growing body of literature on AI in financial services, user-centric empirical research focusing on everyday personal finance applications remains limited, especially in the Indian context. Most existing studies emphasise institutional banking systems, fraud detection, or investment automation, with comparatively fewer investigations into how AI-driven features influence financial awareness, saving behaviour, and trust perceptions among individual users. This study addresses this research gap by providing empirical evidence from Indian users, examining the effectiveness of AI-driven personal finance applications across multiple app categories within an emerging digital economy.

III. METHODOLOGY

This study adopts a quantitative, survey-based research design to examine the role of AI-driven personal finance applications in enhancing financial awareness, saving behaviour, and trust perceptions among users in India. A structured questionnaire was

used as the primary instrument for data collection, allowing for systematic measurement of user engagement with AI-enabled financial tools and their perceived impact.

A. Research Design

The research follows a descriptive and exploratory design, focusing on understanding usage patterns and user perceptions rather than establishing causal relationships. A cross-sectional approach was employed, capturing responses from participants at a single point in time. This design is appropriate for assessing user awareness, behaviour, and attitudes related to AI-driven personal finance applications.

B. Target Population and Sampling

The target population of the study comprised Indian users who actively use digital personal finance applications, including payment apps, credit management tools, budgeting platforms, neo-banking applications, investment apps, and micro-savings tools. A non-probability convenience sampling technique was adopted due to ease of access and time constraints. Data were collected through online platforms, ensuring participation from users with prior exposure to AI-enabled financial applications.

A total of 161 valid responses were obtained and considered for final analysis after data cleaning. Responses with incomplete or inconsistent entries were excluded to maintain data quality.

C. Data Collection Instrument

Primary data were collected using a Google Forms-based questionnaire consisting of multiple sections. The questionnaire included demographic questions (age and occupation), application usage patterns, AI feature usage, and perception-based statements related to financial awareness, saving behaviour, trust, and privacy. Multiple-choice and checkbox questions were used to capture application and feature usage, while perception-based items were measured using a five-point Likert scale ranging from Strongly Disagree to Strongly Agree.

The questionnaire was designed to be simple and user-friendly to encourage accurate and honest responses. Participation was voluntary, and respondents were informed that the data collected would be used solely for academic research purposes.

D. Measurement of Variables

Financial awareness, saving behaviour, and trust perceptions were measured using Likert-scale statements. For analytical purposes, textual Likert responses were coded numerically on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Application usage and AI feature engagement were analysed using frequency counts, as respondents were allowed to select multiple options.

E. Data Analysis Techniques

The collected data were exported to spreadsheet software for cleaning and analysis. Descriptive statistical techniques were employed to analyse the data. Frequencies were used to examine demographic characteristics, application usage, and AI feature engagement. Mean scores and standard deviations were calculated to assess levels of financial awareness, saving behaviour, and trust perceptions. The results were presented in the form of tables to facilitate clear interpretation.

F. Ethical Considerations

Ethical considerations were duly addressed in the study. No personally identifiable information was collected from respondents, and anonymity was maintained throughout the research process. Respondents were informed about the purpose of the study, and consent was implied through voluntary participation. The collected data were used exclusively for academic research.

IV. RESULTS AND DATA ANALYSIS

This section presents the findings obtained from the survey conducted to analyse the role of AI-driven personal finance applications in enhancing financial awareness, saving behaviour, and trust perceptions among Indian users. The analysis is based on 161 valid responses collected through an online questionnaire. Descriptive statistical techniques, including frequency analysis, mean values, and standard deviations, were used to summarise the data.

A. Demographic Profile of Respondents

The demographic distribution of respondents is presented in Table 4.1(a) and Table 4.1(b). A majority of the respondents belonged to the 18–24 age group, indicating strong participation from young users. In

terms of occupation, students constituted the largest proportion, followed by working professionals. This demographic profile reflects a sample largely composed of digitally active individuals who frequently engage with mobile-based financial applications.

Age Group	Frequency	Percentage
18–24	135	83.85093168
25–34	11	6.832298137
35–40	7	4.347826087
40+	8	4.968944099

Table 4.1(a): Age Distribution of Respondents

Occupation	Frequency	Percentage
student	119	73.91304348
Working professional	28	17.39130435
Self-employed	13	8.074534161
Homemaker	1	0.6211180124

Table 4.1(b): Occupational Distribution of Respondents

B. Usage of Personal Finance Applications

Table 4.2 presents the frequency of usage of personal finance applications categorised into payment apps, credit management apps, neo-banking platforms, investment applications, and micro-savings tools. Among payment applications, Google Pay emerged as the most widely used platform, followed by PhonePe and Paytm. In the credit management category, CRED showed higher adoption compared to other applications.

The use of neo-banking and budgeting applications, such as Jupiter Money and Fi Money, was comparatively lower, with a large proportion of respondents reporting no use of such platforms. Among investment applications, Groww and Zerodha were the most commonly used. Micro-savings tools such as Jar App showed limited adoption. Since respondents were allowed to select multiple applications, frequencies reflect usage counts rather than exclusive categories.

Application category	Apps	Frequency
Payment Apps	Google Pay	119
	PhonePe	80
	PayTM	61
	Others	27
	None	3
Credit Score / Credit Card Management Apps	CRED	38
	OneScore	17
	Others	7
	None	117
Budgeting / Neo-banking Apps (AI insights)	Jupiter Money	13
	Fi Money	9
	Niyo	8
	Others	7
	None	136
Investment / Wealth Management Apps	Groww	75
	INDmoney	14
	ETMoney	9
	Zerodha	44
	Others	18
	None	56
Micro-Savings App	Jar App	19
	Others	7
	None	139

Table 4.2: Usage of Personal Finance Applications

C. Usage of AI-Driven Features

The engagement with AI-driven features is summarised in Table 4.3. Features such as spending summaries and bill reminders were the most frequently used, indicating a preference for AI tools that support routine financial management. Expense categorisation and investment recommendations also showed moderate usage. A notable proportion of respondents reported limited awareness or usage of advanced AI-driven features, suggesting varying levels of engagement with AI functionalities.

AI Feature	Frequency
Expense categorization	53
Monthly spending summaries	64
Bill reminders	58
Saving goals / automated rules	32
Credit score insights	31
Investment recommendations	43
I'm not sure / I don't use any AI features	67

Table 4.3: Usage of AI-Driven Features

D. Financial Awareness

Table 4.4 presents the mean scores and standard deviations for financial awareness-related statements. The results indicate a moderate level of financial awareness among respondents. Higher mean values were observed for understanding spending patterns and overall money management, while relatively lower scores were noted for identifying unnecessary expenses and budgeting discipline. These findings suggest that AI-driven applications contribute to financial awareness primarily through increased visibility rather than deep behavioural transformation.

Statement	Mean	Standard Deviation
I understand my monthly spending patterns better because of these apps.	3.01242236	1.23989706
These apps help me notice unnecessary expenses.	2.795031056	1.265494036
I feel more aware of how I manage my money.	3.304347826	1.209563342
The insights in these apps make me more conscious of my budgeting habits.	2.937888199	1.287873446

Table 4.4: Financial Awareness

E. Saving Behaviour and Financial Decision-Making

The impact of AI-driven tools on saving behaviour and financial decision-making is presented in Table 4.5. The highest mean score was observed for statements related to the effectiveness of bill reminders in avoiding missed payments. Moderate agreement was found for improved confidence in financial decision-making and motivation to follow financial goals. However, the influence of AI features on regular saving behaviour was comparatively lower, indicating a limited impact on long-term saving habits.

Statement	Mean	Standard Deviation
I save money more regularly because of the features in these apps.	2.832298137	1.050214412
Bill reminders help me avoid late fees or missed payments.	3.608695652	1.199864123
I feel more confident making financial decisions after using these apps.	3.031055901	1.008850585
These apps motivate me to follow my financial goals.	3.136645963	1.027721353

Table 4.5: Saving Behaviour and Financial Decision-Making

F. Trust and Privacy Perceptions

Table 4.6 summarises respondents' trust and privacy perceptions regarding AI-driven personal finance applications. The results indicate moderate trust in AI-generated financial recommendations and cautious comfort with sharing financial data. Respondents expressed slightly higher trust in Indian fintech applications compared to international platforms. Overall, the findings highlight the importance of trust and privacy considerations in shaping user engagement with AI-enabled financial tools.

Statement	Mean	Standard Deviation
I trust the accuracy of the financial suggestions recommended by these apps.	3.074534161	0.9324215452
I feel comfortable sharing my financial data with these apps.	3.080745342	1.012269451
I trust Indian fintech apps more than international ones.	3.354037267	0.9773045705

Table 4.6: Trust and Privacy Perceptions

V. DISCUSSION

The findings of this study provide meaningful insights into the role of AI-driven personal finance applications in shaping financial awareness, saving behaviour, and trust perceptions among Indian users. The demographic profile of respondents, dominated by younger users and students, reflects a digitally active population that frequently engages with mobile-based financial platforms. This aligns with existing literature suggesting that younger cohorts are early adopters of fintech solutions and are more receptive to AI-enabled financial tools.

The results indicate that payment applications such as Google Pay and PhonePe are the most widely used platforms, reinforcing the idea that transaction-based apps often serve as the primary entry point into the digital finance ecosystem. In contrast, the comparatively lower adoption of neo-banking, budgeting, and micro-savings applications suggests that users remain less engaged with platforms requiring deeper financial planning or long-term commitment. This highlights a gap between basic digital payment usage and advanced personal finance management.

Analysis of AI-driven feature usage reveals that respondents primarily engage with features offering immediate and passive benefits, such as spending summaries and bill reminders. These features reduce cognitive effort and support routine financial management, which explains their higher adoption. However, more proactive AI features, such as saving goals, automated rules, and credit insights, exhibited relatively lower usage, indicating limited engagement with AI-enabled long-term financial planning tools.

The findings related to financial awareness suggest a moderate positive impact of AI-driven applications. While users reported improved understanding of spending patterns and overall money management, the ability to identify unnecessary expenses and develop disciplined budgeting habits remained weaker. This supports behavioural finance perspectives that increased awareness does not automatically translate into sustained behavioural change without strong motivational or structural support.

Similarly, the results for saving behaviour and financial decision-making indicate that AI tools are more effective in supporting short-term financial actions, such as avoiding missed payments, than in encouraging consistent saving habits. This suggests that while AI enhances financial convenience and efficiency, its impact on long-term financial discipline remains limited.

Trust and privacy perceptions emerged as important moderating factors. Respondents expressed moderate trust in AI-generated financial recommendations, accompanied by ongoing concerns regarding data sharing and privacy. Notably, higher trust in Indian fintech applications compared to international platforms reflects the importance of contextual familiarity and perceived regulatory assurance. Overall, the discussion highlights that the effectiveness of AI-driven personal finance applications depends not only on technological capability but also on user trust, transparency, and financial literacy.

VI. CONCLUSION AND FUTURE SCOPE

A. Conclusion

This study examined the role of AI-driven personal finance applications in enhancing financial awareness, saving behaviour, and trust perceptions among Indian users. Using a survey-based quantitative approach, the research provides user-centric empirical evidence from India's rapidly evolving digital finance ecosystem. The findings indicate that AI-enabled features positively contribute to financial awareness and short-term financial management, particularly through spending summaries and bill reminders. However, their impact on consistent saving behaviour and disciplined budgeting remains moderate.

The study also reveals cautious user trust in AI-generated financial recommendations, with privacy concerns continuing to influence engagement. Overall, the research demonstrates that while AI-driven personal finance applications offer significant potential to support everyday financial management, their effectiveness in driving deeper behavioural change is currently limited.

B. Limitations and Future Scope

The study has certain limitations. The sample primarily represents younger users, which may limit the generalizability of the findings to older or less digitally engaged populations. Additionally, the reliance on self-reported data may introduce response bias. The cross-sectional nature of the study also restricts the ability to establish causal relationships.

Future research may adopt longitudinal or experimental designs to examine how sustained use of AI-driven financial tools influences behaviour over time. Further studies could also explore diverse demographic groups and investigate the role of explainable AI, personalisation, and regulatory frameworks in enhancing trust and long-term adoption of AI-enabled personal finance applications in emerging digital economies.

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