

Role of Generative AI Tools in Empowering Gen Z And Millennial to Manage Personal Finance

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Abstract:

The study aims on using Parasuraman's (2000) Technology Readiness Index (TRI) dimensions on optimism, innovativeness, discomfort, and insecurity as a guiding framework to assess influences on usage intention of AI-based tools for personal finance management (e.g., budgeting/saving/investing/expense tracking). The sample size of 161 active users of AI-based tools based in Mumbai have been used. The data shows no significant difference between men and women in overall TRI or intent to use AI tools. Looking at Gen Z are much more optimistic, innovative and intentional (and a higher percentage hold positive perceptions), whereas Gen Z and millennial might be equally uncomfortable/dissatisfied/insecure pointing to the fact that while the age of the interviewee influences their optimism and interest in adoption, concerns over technology are blind. Innovativeness ($r=0.796$) has the strongest positive relationship followed by all TRI dimensions with intent. Regression analysis shows a high correlation between the exploratory variables and intent ($R = 0.965$, $R^2 = 0.932$), which indicates that 93.2% of intent variation is explained by TRI factors in this model. Results highlight that among younger generations, technology readiness is an important factor in incorporating AI-managed personal finance.

Keyword: AI based financial tools, Personal finance, Technology Readiness Index, Gen Z, and Millennial

1. Introduction

The growing adoption of artificial intelligence (AI) in personal finance has changed how people approach their financial activities, including budgeting and tracking their spending to planning investments and debt repayment. The automation of processes, personalized financial insights, and making decisions based on data are also praised as the advantages of AI-based personal finance tools.

AI Applications in Finance

Personal finance is one area where AI is being applied, such as robo-advisors, expense trackers, debt payoff calculators, and savings bots. These tools use data analytics, machine learning, and natural language processing (NLP) to provide valuable information about financial behavior (Nguyen and Tran, 2023). Popular apps like Mint, YNAB, and algorithms-based advisors like Betterment and Wealth front can help with budgeting, investment plan, and goal optimization. The literature mentions such core advantages as personalized financial guidance, the automation of routine processes (including bill payments), and prediction abilities to detect long-term financial risks (Smith et al., 2021). One of the major opportunities is behavioral nudging, where AI can be used to encourage people to save better or avoid spending wastefully by analyzing patterns of spending, over time (Schmidt and Brown, 2022). Also, scalability means that these tools can support different income levels, providing financial literacy and tools

to underserved communities (Ramirez, 2023). AI applications are beneficial in personalizing financial information. Research highlights the significance of a user-centric, personalized approach that enhances the effectiveness and user engagement (Chen et al., 2021). Studies indicate that conversational agent or chatbot-based tools (e.g., Cleo) enhance the interaction between the user and prompt the trust in financial planning, particularly among younger audiences. Financial decision-making is automated by using past and current data through AI tools. Predictive analytics, which have recently been developed, enable the detection of imminent overdrafts or investments that are not doing well in the market (Miller and Zhang, 2020). Although automation is mostly positive, researchers caution about the potential risk of over-dependence on system outputs that can lead to the fact that users are not actively involved in financial activities (Kumar & Patel, 2022). Some of the studies indicate that AI-driven finance tools can be used to close the gaps in traditionally underserved groups, including those with limited access to financial advisors. With the help of such tools, individuals with low incomes can afford high-quality financial advice at an affordable price (Priya et al., 2023). Nonetheless, researchers point to worries that the digital illiterate might continue to be marginalized by technology. The huge volumes of personal and financial information gathered by AI systems are ethically questionable. Numerous tools are based on sensitive information and provide insights, which raises a concern regarding cybersecurity threats and data abuse. Critics believe that the transparency of most AI algorithms may be compromised, which will hurt user trust (Garcia & Thomas, 2022). Additionally, AI models can also reinforce inequality, especially in credit scoring algorithms (Zhou et al., 2023).

Debates in AI-Driven Personal Finance

One of the issues that have been a point of contention is the complexity of the AI model as opposed to its transparency. Very complicated models can prove more effective and difficult to comprehend by end-users, which decreases the confidence in AI-based suggestions (Smith et al., 2021). Researchers emphasize the need to have interpretable systems that empower its users. Although manual labor is minimized by automation, researchers debate whether individuals are supposed to be actively involved in controlling AI-generated judgments or not. It is even said that excessive use of automation may reduce the financial literacy of users (Nguyen & Tran, 2023). Those who support a hybrid approach believe that AI can support humans, but do not entirely eliminate the decision-making (Schmidt and Brown, 2022). Fear of an unequal access to technology remains. Although a number of AI tools are designed as inclusive, not all groups have access to them because of language barriers or financial reasons (Kumar and Patel, 2022). Scholars argue on whether the governments or companies must take proactive action in bridging this digital divide.

2. Review of Literature

Kumar and Singh (2026) explored the use of generative AI tools to enhance financial literacy and financial decision-making by using personalized learning systems. The researchers have discovered that AI-based financial applications increase user engagement and awareness of financial behaviors like budgeting, saving, and investment planning. This study also showed that AI-based learning systems enhance confidence in financial decision-making. It implied that generative AI may be used to empower people with financial knowledge to a great extent. The research suggested adopting AI tools within financial education courses. A recent Study on LLMs in Personal Finance (2026) examined the use of large language models like AI chatbots to handle daily financial activities by individuals. The research established that AI tools help users to budget, track expenses and plan investments by offering real-time financial data. These systems ease complicated financial data and enhance sounder financial decision-

making. The study highlighted the fact that financial advisory services can be democratized by the use of generative AI. Nevertheless, it also pointed to the dangers concerning accuracy, trust, and over-reliance on automated systems.

Chen (2025) performed a literature review of the use of generative artificial intelligence in the finance industry in a systematic way. In the study, it was emphasized that generative AI models (including large language models and generative adversarial networks) are more and more applied to financial analysis, advisory services, and personal financial planning. The study highlighted the fact that people can use the technologies to gain individualized financial insights and automate budgeting and investment plans. It also highlighted issues like privacy of data, ethical issues, and regulatory constraints of AI-based financial applications. The research has found out that generative AI will significantly contribute to the transformation of digital financial management systems.

Mo (2025) conducted a review of the existing literature on the use of generative AI in financial economics and studied its impact on finance decision-making and market research. The researchers discovered that generative AI applications can improve financial projections, portfolio analysis, and investor decision support using the data-driven information. These applications assist people to comprehend complex financial data more effectively. The study also indicated that the younger generations, which are more technologically advanced, would be more inclined to embrace AI-driven financial services. It concluded that in the future the personal financial advisory system will undergo a significant change due to generative AI. Praveen (2025) reviewed the impact of artificial intelligence and machine learning on the financial literacy and investment choices of people. The researchers found out that AI-enabled applications enhance financial literacy and confidence in investment choices, as well as engagement with financial planning tools. It specifically pointed out that younger generations of digital-natives, including Gen Z and Millennials, are enjoying more personalized AI recommendations. The results suggest that AI-driven financial technologies have the potential to close the financial literacy gap among young investors. The research suggests the implementation of AI technologies in the digital financial education systems. Kumar (2025) explored the wider generative AI revolution and its applications in the industry such as finance. The research found that perceived usefulness, ease of use, and technological readiness of users are the reasons behind the adoption of generative AI. Within the financial sphere, AI can help people analyze financial data, predict trends, and automate financial planning processes. The research highlighted the importance of trust, transparency, and ethical governance in AI adoption. It concluded that AI-powered decision systems have the potential to enhance financial performance when utilized in a responsible manner.

Lee et al. (2024) examined the use of generative AI technologies in financial systems and pointed at their application in enhancing financial analytics, as well as decision-making. The study concluded that generative AI models are capable of producing synthetic financial data, aid predictive modeling, and enhance risk management. Such abilities assist individuals and organizations to make sound financial choices. The paper has also highlighted the possibility of AI tools in streamlining the process of financial planning. Nevertheless, it indicated that there was a necessity to have robust regulatory structures that would see ethical applications of AI in the financial sector. Prakash and Sharma (2024) studied the effect of artificial intelligence on financial decision-making. The research revealed that machine learning-based financial systems improve financial planning with predictive analytics, risk measurement, and robotized advisory services. Using AI applications enables people to process the financial data more effectively and make more effective financial choices. Nonetheless, the issue of privacy of data, algorithm bias, and

regulatory control are also major issues. The research has proposed that AI adoption with financial literacy can significantly enhance personal finances management. Kumar et al. (2024) examined the concept of the use of generative AI in financial forecasting and economic decision-making. The study revealed that AI systems like GPT are able to create financial information, automate financial statements, and emulate market conditions. Such abilities help individuals and organizations to know the market trends and control investments in a better way. Another key finding of the study was the effectiveness of generative AI in enhancing financial forecasting. It has concluded that AI tools are emerging as useful decision-support tools in financial planning. Suryawanshi and Khandelwal (2024) studied the impact of artificial intelligence technologies in the context of financial decisions made by various age groups. The study showed that AI-based financial systems are able to offer personalized recommendations and enhance financial risk assessment. It also highlighted that by using automation and insights based on algorithms, people can make quicker and more precise financial choices. The research indicated that younger users are more likely to be inclined towards the use of AI-driven financial tools. Overall, AI was identified as a key driver of innovation in financial services.

3. Research Gaps and Future Directions

The most recent research concentrates on the immediate assessment of the impact of AI utilities on financial behavior. The changes in the financial literacy and wealth accumulation should be evaluated with the help of long-term impact studies that investigate the changes over time (Kumar and Patel, 2022). Despite the concerns on data privacy in literature, there is limited empirical research on the mechanisms to protect user data in the AI frameworks. Investigating the approaches to federated learning and encryption would increase the trust of users in the work of AI systems (Garcia and Thomas, 2022). There have been very limited studies on the integration of concepts of behavioral economics, including loss aversion or mental accounting, into AI tools to enhance their performance. This presents an opportunity for interdisciplinary research (Schmidt & Brown, 2022).

Despite the promising outlooks of AI tools in promoting financial inclusion, the literature is lacking in exploring the long-term effects it has on financially disadvantaged users (Ramirez, 2023). Additional studies on this field would determine the obstacles to adoption and the possibility of tackling them.

Types of AI Personal Finance Tools

The AI-based personal finance tools may be divided into the following:

1. Expenses and budgeting devices - AI-based apps such as Cleo and PocketGuard track expenses and analyze patterns of spending in real-time.
2. Saving and investing applications - Robo-advisors such as Acorns will automate micro-investments, and Wealthfront will optimize investment portfolios.
3. Debt management tools – There are tools such as Tally that assist in consolidating debt and making customized repayment plans.
4. Credit scoring and monitoring applications- Credit Karma is an example of an app that uses AI to suggest more effective financial plans depending on the credit score of the user.

4. Research Methodology

It is a descriptive study that seeks to describe and interpret the existing patterns, perceptions and usage behavior of people who use AI tools to manage their personal finances as opposed to establishing causal relationships. A total of 161 responses were collected from people who are actively using AI-based

applications or platforms for managing their personal finances, such as budgeting, saving, investing, or expense tracking.

Reliable information was collected using a structured questionnaire, which comprised of an 18-item scale, which was created to reflect important elements such as awareness levels, perceived usefulness, trust, ethical issues, and convenience of AI tools. Convenience sampling method was used to administer the questionnaire, whereby the respondents were chosen by their easy access and readiness to respond which is characteristic of exploratory and descriptive studies.

Besides the primary data, the study also relied on secondary data of credible academic journals and other trustworthy sources to reinforce the conceptual framework, narrow down the variables and give context to the findings. Such a combination of numerical survey data and theoretical literature contributed to the enhancement of the analysis and interpretation.

All research was carried out within the urban area of Mumbai, specifically within the urban population that is comparatively more exposed to digital and financial technologies, and therefore, the results are especially applicable to a technologically advanced, urban population.

5. Objectives of the Study

- To investigate how people perceive the use of AI-based tools to manage personal finances, with the assistance of the Technology Readiness Index (TRI) and understand how these perceptions differ across gender and age.
- To determine how technology readiness (such as optimism, innovativeness, discomfort, and insecurity) influences an intention to use AI tools in personal finance management.

6. Conceptual Framework

The Technology Readiness Index dimension by Parasuraman (2000) used to analyze optimism, Innovativeness, Discomfort and Insecurity towards intention to use AI tool for personal finance in figure 6.1. The optimism dimension act as a motivational driver which shows how people are ready to accept new technology product and services. The innovativeness dimension acts a proactive enabler which fuels early adaptation and exploration of emerging technologies in business processes. The discomfort dimension acts as an inhibiting factor that resist with the new AI tool due to complex features of AI tool. The last Insecurity dimension act as inhibitor factor which dampen by accentuating perceived risk associated with AI tool sue to various safety, privacy and reliability concern.

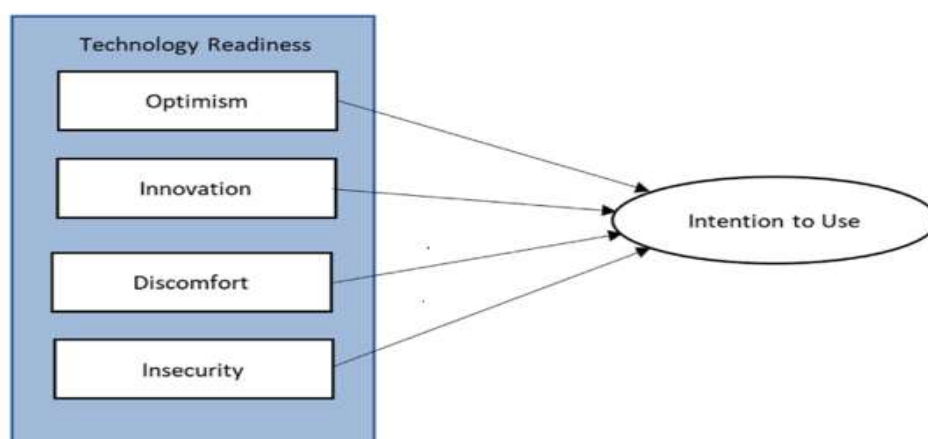


Figure 6.1 showing Impact of Technology readiness on Intention to use

7. Data Analysis and Interpretation:

The research indicated the way the Ai Investment tool is at the fledging stage. The objectives of the analysis are to learn the impact of Technology Readiness Index dimension by Parasuraman (2000) on the willingness of the respondent to use the AI tool to handle their personal finance. With various statistical technique such as realiability, one way ANOVA, independent sample t-test, correlation and regression analysis were applied.

1. Reliability Analysis

A glance in the table 4.1 reveals consistency of internal consistency between the items used in the scale and how reliability scale. The cronbach alpha of 0.896 is a high measure of internal consistency of the items in the scale. The measurement scale is found to be reliable as the value is far above acceptable value of 0.70. Thus, the outcome will prove that the scale employed in the study is appropriate to be further statistically analyzed.

Table 7.1: Scale Reliability Statistics	
	Cronbach's α
Scale	0.896

Since the value is well above the acceptable threshold of 0.70, the measurement scale is considered reliable. Therefore, the result confirm that the scale used in the study is suitable for further statistical analysis.

2. Difference in Gender and Age

The Independent sample T-test to be done to determine whether there is difference in gender in respect to their perception of AI tool adoption of their personal finance.

H1: There is a significant difference between male and female respondent in their perception on adoption of AI tool based on Technology readiness Index for their personal finance management.

Table 7.2: Independent Samples T-Test				
		Statistic	df	p
Optimism	Student's t	0.112	158	0.911
Innovation	Student's t	-0.590	158	0.556
Discomfort	Student's t	0.362	158	0.718
Insecurity	Student's t	1.325	158	0.187
Intent to Use	Student's t	-1.639	158	0.103
Note. $H_a \mu_{Male} \neq \mu_{Female}$				

The outcome of the table 7.2 indicates that all the p value exceeds 0.05, which implies that there is no statistically significant difference between the male respondent and female respondent in terms of Technology readiness Index and intent to use AI based financial tools to manage their personal finances.

H2: There is a significant difference between Gen Z (Age group 20-29) and Millennial (Age group 30-45) respondent in their perception on adoption of AI tool based on Technology readiness Index for their personal finance management.

		Statistic	df	p
Optimism	Student's t	-3.14 ^a	158	0.002
Innovation	Student's t	-2.11 ^a	158	0.036
Discomfort	Student's t	-1.40 ^a	158	0.165
Insecurity	Student's t	-1.16 ^a	158	0.247
Note. H _a $\mu_{20-29} \neq \mu_{30-45}$				
^a Levene's test is significant (p < .05), suggesting a violation of the assumption of equal variances				

The results are as indicated in the table 7.3 where optimism, innovation and intent to use provide statistically significant difference between the Gen Z and the Millennial. However, discomfort and Insecurity do not significantly differ between the Gen Z and Millennial. This imply that age has a role in positive perception, with interest and intention to adopt AI tool in personal finance, but the concern regarding the complexity of technology and security issues are comparatively similar between the Gen Z and Millennial.

3. Correlation between Technology Readiness Index and intent to use AI tool

The correlation analysis is conducted to apprehend the relationship between the dependent and independent variable that is used to determine the adoption of AI tool in personal Finance management.

H3: There is a significant difference between the relationship between technology readiness index dimensions and intent to use AI tool for personal finance management.

		Optimism	Innovation	Discomfort	Insecurity	Intent to Use
Optimism	Pearson's r	—				
	df	—				
	p-value	—				
Innovation	Pearson's r	0.859	—			
	df	159	—			
	p-value	<.001	—			
Discomfort	Pearson's r	0.518	0.501	—		
	df	159	159	—		
	p-value	<.001	<.001	—		
Insecurity	Pearson's r	0.800	0.820	0.666	—	
	df	159	159	159	—	
	p-value	<.001	<.001	<.001	—	
Intent to Use	Pearson's r	0.704	0.796	0.379	0.663	—
	df	159	159	159	159	—
	p-value	<.001	<.001	<.001	<.001	—

The table 7.4 shows all dimension of Technology reediness Index showing a positive correlation with intent to use AI tool for managing their personal finance. But innovation has the highest relationship as it reveals the value of 0.796, meaning that more open to technology innovation, individual people tend to use AI tools in personal finances management.

4. Influence to adopt AI tools for personal finance

The regression test is carried out to comprehend as how the dimensions of the Technology readiness Index affect the Intent to use AI tools with the management of personal finance.

H4: Technology readiness index significantly influence the intention to use AI tool for personal finance.

Model	R	R ²
1	0.965	0.932

Note. Models estimated using sample size of N=161

The regression model table 7.5 indicates that there is a strong association between the independent variables and the dependent variable, and the R value is 0.965. The R² value of 0.932 indicates that 93.2% of the variation in the intention to use AI tools is explained by the technology readiness factors.

This observation shows that technology readiness is a crucial factor in determining the use of AI-based personal finance devices among Gen Z and Millennial.

5. Respondent perspective towards usage of AI tool

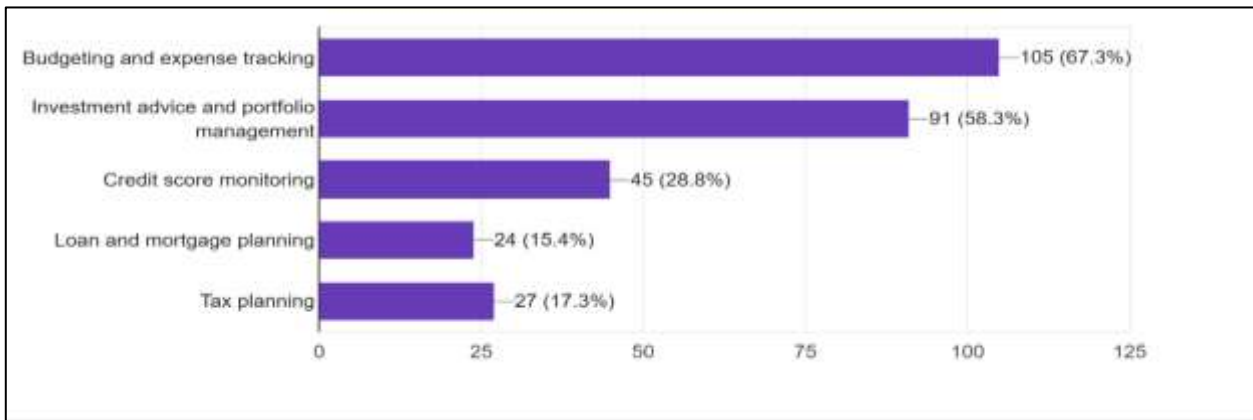


Chart 7.1: Showing the Financial Task performed by respondents using AI tools

According to Chart 7.1, budgeting and expense tracking is the most frequently used as 105 respondents (67.3) use AI tools to track their expenses and control their daily financial operations. This indicates that users are largely using AI applications to help with the simple financial organization and planning. Investment advice and portfolio management is the second most preferred application, with 91 respondents (58.3%). It demonstrates that a substantial percentage of users rely on AI tools to gain insights into their investments, market insights, and portfolio optimization, which indicates the increasing popularity of AI-based financial advisory services among Gen Z and Millennials. A lower percentage of respondents monitor their credit scores using AI tools (45 respondents; 28.8%), which shows that they are moderately aware of AI use in credit management. Equally, tax planning (27 respondents; 17.3) and loan and mortgage planning (24 respondents; 15.4) are least used services.

In general, the chart shows that the most common financial tasks that are performed with the help of Generative AI include the routine tasks of financial management like budgeting and investment advice, whereas the more complicated financial services such as taxation and loan planning are less commonly represented. This underscores the increasing application of AI in making personal finance decisions easier, particularly among younger digital-native users.

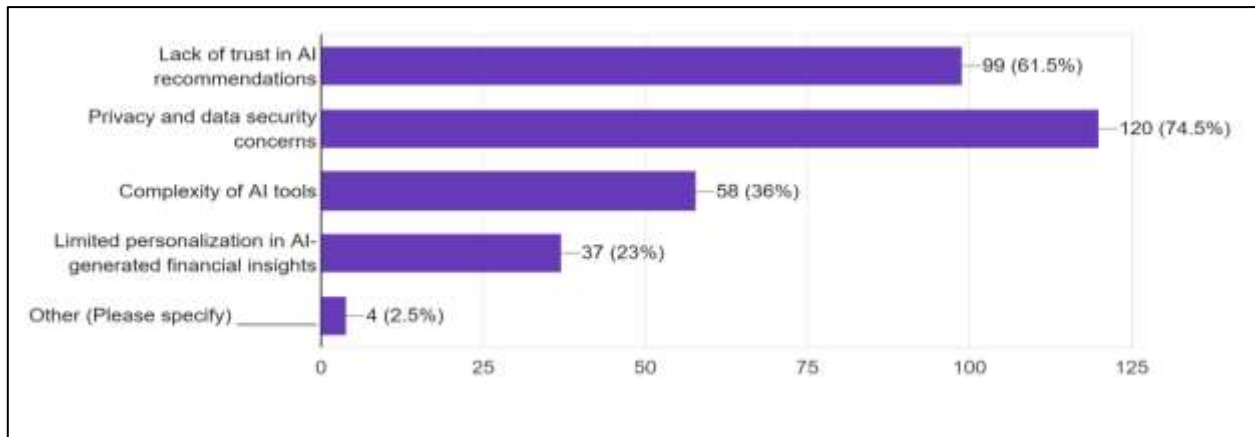


Chart 7.2: Showing the challenges faced in using AI tools

Chart No. 7.2 identifies the key difficulties the respondents encountered in using Generative AI tools in managing their personal finances. Privacy and data security are the biggest issue with 120 respondents (74.5%), making it clear that users are concerned about the security of their financial data. This is then followed by distrust towards AI suggestions with 99 respondents (61.5%), indicating a reluctance to fully depend on AI-based financial guidance. The other issue that 58 respondents (36%), experience is complexity of AI tools indicating that some users perceive such technologies as problematic to learn or use. Also, 37 respondents (23%), reported a lack of personalization of AI-generated financial advice, suggesting that users want more personalized financial advice. On the whole, the results indicate that although AI tools have their usefulness, the issues of security, trust, and usability are still considered to be the major obstacles to the broader use of this technology.

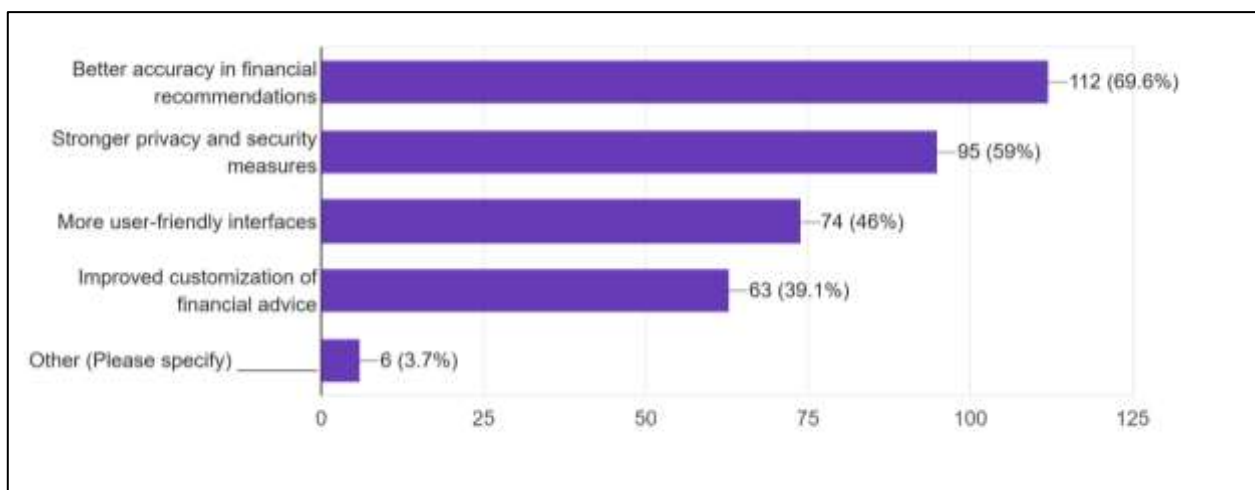


Chart 7.3: Showing suggestions to encourage use of AI for personal finance more frequently

That most respondents (n=112, 69.6) felt that the most significant improvement required was better accuracy in financial recommendations, is shown in Chart 7.3. More emphatic privacy and security were mentioned by 95 respondents (59%), which shows that there should be more protection of financial information. Moreover, 74 (46) respondents would like interfaces to be more user-friendly to simplify the use of AI tools. The demand to customize financial advice was observed as 63 respondents (39.1) proposed improved customization of financial advice. In general, the results suggest that the effectiveness of AI-powered financial tools can be improved by focusing on accuracy, security, usability, and personalization.

8. Conclusion and suggestions

The emergent competences of AI tools in handling personal finance are unquestionable, with noteworthy benefits in, personalization, automation and financial inclusion. Gen Z is adopting AI tools for finance, aligning towards shaping on responsible innovation with accountability. In fact, they create an image in which they are devoted to policies that focus on ethically using AI. This is how a business practices look forward in position such AI tool with more inclusive, open and sustainable future.

This paper offers three strategic suggestion for the business provider to ensure that Gen Z and millennial can support the potential usage of AI in personal finance. Firstly, cultivate an ethical and accountable business practices which helps to build integrity in handling the financial data. Secondly keep security concern with transparency for data storing, encrypting and reduce bias monitoring for a transparent and logical decision. Thirdly, reduce the operational complexity mechanism of AI tool so that it is easy to use for non-finance background people.

However, the encounters of transparency, data security, and approachability highlight areas that need further consideration. Impending research should prioritize longitudinal studies, ethical AI design, and measures to link technological divides. Due to the constant advancements, AI is bound to not only improve individuals' financial capabilities but even democratize financial literacy skill globally.

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