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Understanding Older Adults' Perceptions of AI Use in Financial Decisions

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ABSTRACT

Older adults represent a disproportionately large group of financial fraud victims. Artificial Intelligence (AI) has the potential to significantly enhance personal finance decision-making, including detecting and preventing scams. This study surveyed 39 older adults ($M = 63.0$ yrs., $SD = 10.6$ yrs.) to understand their perceptions of AI use for personal finance decisions, focusing on their trust, comfort, and interest in AI-powered applications. Results suggested that older adults with greater concerns about financial scams are more likely to show both a higher interest and greater comfort in using AI for personal financial decisions. Furthermore, individuals who consider AI-based technology important in their daily lives were more likely to report feeling more comfortable asking AI to assist them with their questions about personal finance decisions. The findings also suggested that participants emphasized AI's value for convenience and problem-solving. While some concerns emerged—such as data privacy or lack of knowledge about the technology—they were often balanced by a willingness to engage with AI tools. Overall, respondents expressed a willingness to use AI for financial decision-making when its benefits are clearly explained and their concerns about data security are properly addressed.

Keywords: Older adults, Artificial intelligence, Finance, Fraud, Survey

INTRODUCTION

Financial fraud targeting older adults has escalated dramatically in recent years, with losses from government impersonation schemes alone increasing from $65 million in 2021 to $179 million in 2023, and overall reported losses among adults aged 60 and over exceeding $3.1 billion in 2022 (Federal Trade Commission, 2023). These rising figures underscore the need for preventive measures and supportive tools that can help safeguard older adults against increasingly sophisticated scam tactics.

In addition to these external threats, age-related changes in cognitive capacity can increase older adults' vulnerability to such scams. For example, Lichtenberg et al. (2016) emphasized that declines in cognitive functioning

can impair financial decision-making, which represents a key risk factor for financial exploitation. Similarly, DeLiema, Langton, and Burnes (2020) reported that nearly 1 in 10 adults aged 65 or older experience identity theft, with those 75 and older experiencing higher average losses per incident than younger age groups. These findings underscore the importance of early detection of financial scams and providing decision support for older adults.

Artificial Intelligence in Financial Decision Making

The rapid development of Artificial Intelligence (AI) has provided numerous opportunities for enhancing user experiences and offering new tools for societal benefit. For example, large language models (LLMs) like ChatGPT, can be integrated into the financial services sector. These systems can assist in fraud detection, customer service, and financial advising. Li et al. (2023) note that the finance industry could benefit from applying LLMs, as effective language understanding and generation can inform trading, risk modeling, and customer service. However, AI systems, developed without adequate representation of older adults in training data, may perpetuate age-related biases and exclude the needs and values of this demographic (Crawford, 2016), with current financial monitoring applications such as Eversafe and Carefull only addressing irregular account activity without accounting for impersonation or phishing (Wild et al., 2022).

To be useful for older adults, AI tools must not only perform well but also be interpretable and user-friendly. The field of Explainable Artificial Intelligence (XAI) focuses on developing methods that make AI-based decisions transparent to human users (Adadi and Berrada, 2018). For older adults who may be hesitant to trust black-box tools, XAI provides a path to increase confidence and understanding. Segal (2023) argues that personalization and logical adaptation in AI tools can support older adults in fraud prevention. These features are especially valuable for those with limited digital literacy, cognitive impairment, or previous experiences with scams.

Despite the rise in AI tools for finance, little is known about how older adults perceive them—particularly for scam prevention and financial advice. This study addresses that gap by exploring older adults' comfort, trust, and interest in using AI applications for personal finance and scam detection. We also examined how prior technology and AI use and experiences with financial scams influence older adults' attitudes toward AI and their concerns about such technologies.

METHOD

Survey Design and Measures

The study used an online survey composed of a mix of Likert-scale, binary (yes/no), multiple-choice, and open-ended questions. The survey was designed to assess older adults' familiarity with AI, their comfort and trust in AI technologies, their perceived usefulness of AI for financial and fraud-related tasks, and their willingness to adopt such tools in daily life.

Demographic information was also collected, including age, gender, education level, living situation, caregiving status, and technology use. Several questions explored participants' prior exposure to AI (e.g., voice assistants, recommendation systems), general attitudes toward technology, and personal experiences with financial scams. Participants were also asked to reflect on their level of digital literacy and technology proficiency. Specific questions were included to understand older adults' perception of AI for financial decision-making, including: whether participants believed AI could protect people from becoming victims of financial scams; how likely they were to trust AI to spot scams; their comfort level using AI to ask questions about personal finance; their trust in AI to offer financial advice; and their interest in using AI for tasks such as banking, insurance, or retirement planning. Participants also responded to open-ended questions about what AI means and their concerns about AI use. The survey took an average of 12.9 minutes to complete.

Participants Recruitment

Ethical approval for research involving human subjects was granted by the Clemson University Institutional Review Board (IRB#2024-0562). Participants were recruited in two rounds: September-October 2024 and February-March 2025. Participants were primarily recruited via email from a database of informal caregivers obtained from Facebook advertisements for previous studies. The survey was anonymous and voluntary and administered online via Qualtrics.

Data Analysis

In addition to analyzing general trends, the study aimed to identify predictors of participants' interest, comfort, and trust in using AI for financial decisions and scam prevention. We hypothesized that greater concern about financial scams, higher technology proficiency, stronger digital literacy, more favorable perceptions of AI's daily importance, and prior experiences with scams or AI would be associated with more positive attitudes toward AI use for financial decision making. Demographic variables such as age and education level were also included as covariates. A summary of the hypotheses is presented in Table 1, while the summary of demographic information is reported in Table 2 in the Results section.

Table 1: List of hypotheses.

Hypothesis ID	Description
H_1	Level of concern about financial scams significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.
H_2	Level of technology proficiency significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.

Continued

Table 1: Continued

Hypothesis ID	Description
H_3	Level of digital literacy significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.
H_4	Perceived importance of AI in daily life significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.
H_5	Prior experience using AI significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.
H_6	Experience with financial scams significantly and positively affects trust, comfort, and interest in using AI for financial decision-making and scam prevention.

Survey data were analyzed using both descriptive and inferential statistics. Ordinal logistic regression models were used to assess relationships between predictors and participants' responses regarding AI interest, trust, comfort, and perceived effectiveness in scam detection and prevention.

To analyze the Likert-scale questions, responses were consolidated into three ordinal categories. For instance, interest levels were reclassified as Low (combining "Definitely not" and "Probably not" responses), Neutral ("Might or might not"), and High interest ("Probably yes" / "Definitely yes") — to support model assumptions and improve interpretability (Melin et al., 2020). Predictors measured on 5-point Likert scales were similarly collapsed; for example, digital literacy was recoded into Low (1–2 ratings), Moderate (3), and High (4–5). Other variables—such as prior AI usage and scam experience—were treated as binary variables (yes/no). For each model, both full and reduced versions were tested. Full models included all predictors, while reduced models retained only predictors that showed significance or strong effect sizes.

Model diagnostics were conducted to evaluate the assumption of proportional odds using the Brant test. To assess multicollinearity, Variance Inflation Factor (VIF) scores were calculated. No serious multicollinearity was detected as all VIF values were below the commonly used threshold of 5 (James et al., 2014). Likelihood ratio tests were conducted to compare full and reduced models against null models, and model significance was reported accordingly. Odds ratios and 95% confidence intervals were calculated to interpret the strength and direction of effects. Open-ended responses were analyzed using thematic coding to identify common concerns and perceptions related to AI technologies. All statistical analyses were conducted using R (version 4.4.1), and model building was based on packages including *MASS*, *VGAM*, and *ordinal* packages.

RESULTS

Participant Demographics

A total of 39 participants completed the survey ($M = 63.0$ yrs., $SD = 10.6$ yrs.). A detailed summary of participant demographics is

presented in Table 2. The sample was predominantly female (95%). In terms of educational level, 41% of participants held a bachelor's degree, 17.9% held a graduate degree, and 28.2% reported completing some college without earning a degree. Regarding caregiving status, the majority (85%) reported providing care to a family member, while 5% indicated they currently have a caregiver themselves. Most participants lived with family (71.8%), while 20.5% lived alone and 12.8% lived with a roommate or housemate. Technology access and use were high across the sample. Nearly all participants reported owning or using a smartphone (95%) and a laptop (85%). A majority also used online banking services (74%) and social media (72%), while some reported using tablets (59%) and smart speakers (36%). When asked about prior use of AI-related technologies—such as voice assistants, chatbots, or recommendation systems—80% reported some experience, while 20% had not used such technologies. In terms of self-rated technology proficiency, 56% described their skills as good, 38% as moderate, and 5% as poor. A similar pattern emerged for digital and media literacy, with 56% rating themselves as having good literacy, 36% as moderate, and 8% as poor.

Table 2: Summary of participant demographics (N = 39).

Demographic Variable	Percentage (%)
Gender	
Male	5
Female	95
Education	
High School Degree	2.6
Some College Courses but No Degree	28.2
Associate degree	10.2
Bachelor's Degree	41
Graduate Degree	17.9
Caregiving Status	
Provide care for a family member	85
Have a caregiver	5
Living Situation	
Live alone	20.5
Live with family	71.8
Live with a housemate or roommate	12.8
Technology Use	
Laptop	85
Smartphone	95
Tablet	59
Smart speaker	36
Social media	72
Online Banking	74
Previous AI Usage	
Have used a technology or service (e.g. voice assistants, chatbots, online recommendations)	80
Have not such technology	20

Continued

Table 2: Continued

Demographic Variable	Percentage (%)
Technology Proficiency	
Poor	5
Moderate	38
Good	56
Digital and Media Literacy	
Poor	8
Moderate	36
Good	56

Descriptive Statistics

Results suggested that over half of the respondents (56%) have been or know a close relative who was a victim of a financial scam, and nearly 90% of respondents said that they are concerned about being a victim of a financial scam.

In terms of general perception, nearly two-thirds (64%) of participants agreed that AI plays a significant role in daily life, with 28% strongly agreeing. A smaller group (10%) disagreed, and 26% were neutral. However, older adults' level of comfort with AI accessing their personal financial data was mixed: while 31% were comfortable to some degree, nearly half (49%) reported discomfort, and 21% remained neutral. When asked about AI's perceived usefulness in various domains, participants largely supported its use in convenience-related functions such as voice assistants (85%), online shopping (80%), and social media suggestions (69%). Nearly half (49%) found AI to be useful for managing personal finance tasks. Attitudes toward AI's role in scam detection were generally favorable. Most participants (64%) indicated they would be likely to trust AI to detect scams. When asked whether *a technological application powered by AI* could help protect people from financial scams, the majority, 56% responded with "maybe," reflecting a sense of openness and curiosity about its potential. Meanwhile, 26% expressed confidence with a definitive "yes," and 18% believed that AI could not offer protection from scams. This suggests general openness to the concept of AI assistance, especially when presented as a tool or application.

Interest in using AI for financial decisions was mixed and cautious. While 36% indicated clear interest, 33% leaned toward disinterest, and 26% remained neutral or unsure. Trust in AI for financial advice followed a similar pattern, with 30% expressing confidence, 41% indicating distrust, and 28% undecided. Comfort in using AI for financial inquiries was moderate. While 30% of participants reported feeling comfortable, another 31% were undecided; suggesting a sizable group that may be open to using AI with greater exposure or education. Although 38% expressed discomfort, the high proportion of neutral responses reflects an opportunity to build confidence through clearer communication of benefits and safeguards.

Analysis of Open-Ended Questions

A thematic analysis was conducted on the comments from the open-ended questions. One question asked older adults to describe what AI means to them. The responses to this question were grouped into five recurring themes:

1. Problem solving (14 mentions): Several participants described AI as a powerful or high-level system capable of thinking, analyzing, and solving problems. One participant defined it as a *"smart computer system capable of problem solving,"* while another said it involved *"using computers to perform tasks typically associated with human intelligence such as reasoning, learning, problem solving and decision making."* Others referred to AI as *"an intelligent form/way of finding information or resources, as well as accomplishing tasks,"* or as something that *"can help us think outside the box."*

2. Convenience (15 mentions): Participants also emphasized AI's value in daily life, highlighting its usefulness, task simplification, and efficiency. One participant described it as an *"assistant in computer technology to use in daily life,"* while another said it *"can make life easier as you can ask it to do certain tasks for you"*.

3. Replacing or Imitating Humans (9 mentions): Some participants viewed AI as a stand-in for real people, describing it as something "*not real*," or "*computerized or not human*." Others mentioned that AI was "*created to mimic real live voices*," or "*interacting with a computer instead of a person to get information.*"

4. Data Collection & Personalization (5 mentions): A few participants emphasized AI's ability to collect and adapt to large volumes of data. One participant said, *"computers that learn from you, your language, and behavior,"* while another explained it as *"individual preferences based on historical information."* One described it as *"predicting/answering/analyzing a person or their data to determine their needs, wants, or resources."*

5. Negative or Harmful for Human (6 mentions): A few participants expressed fear or discomfort toward AI. One stated plainly, "*too much technology for me. It actually frightened me*," while another commented, "*scary if used incorrectly, it can destroy lives and mislead with incorrect information*." Some associated AI with surveillance or manipulation, such as "*government and other entities spying on us*," and "*I think of Elon Musk when I hear it*."

When asked specifically about their concerns regarding AI, participants expressed a range of perspectives, which were organized into six major themes:

1. Privacy & Personal Data Security (14 mentions): The most common concern involved the potential misuse or unauthorized access of personal information. Participants were wary of how their data might be handled and by whom. One noted, *"I'd be worried that someone may gain access to my personal data,"* while another clarified, *"It isn't that I distrust AI, it is that I distrust who has access to that information."* A third participant simply stated concern over the *"availability of my information to outside sources that I'm unaware of."*

2. Hacking, Scams & Cybersecurity Risks (11 mentions): Many participants feared that AI systems could be vulnerable to cyberattacks or exploited by scammers. This concern was often connected to broader skepticism about digital tools and system security. One person remarked, *"AI could be hacked too,"* while another added, *"Scammers may cloak themselves as protection and I would be suspicious of them as well."* A third participant warned, *"Hackers can harness the power of AI to develop more advanced cyber-attacks."*

3. Trust, Validity & Reliability of AI Advice (7 mentions): Some respondents questioned whether AI could deliver trustworthy or accurate recommendations. One participant shared *"That I might be given the wrong information,"* and another said, *"I would not be sure whether to follow the advice of artificial intelligence."*

4. Lack of Knowledge or Familiarity (6 mentions): A number of participants expressed hesitation due to limited exposure to or understanding of AI. Their uncertainty often stemmed from novelty rather than inherent distrust. One expressed, *"I just don't know enough about the technology to feel comfortable,"* and another stated, *"Not sure—so new and don't know extent of problems it could cause."*

5. Loss of Human Control or Overdependence (5 mentions): This theme reflected discomfort with relying too heavily on machines or losing the human element in decision-making. One explained, *"It prevents people from thinking on their own,"* and another reflected, *"Having complete control without human interactions is hard for me to wrap my brain around."*

6. No Concerns or Positive Views (4 mentions): A few participants expressed confidence or lack of worry, saying, "*I do not have any concerns right now*," and "*I don't have any concerns… it's here to stay*."

Overall, the findings suggested that the respondents had a generally positive view of AI. Participants emphasized its value for convenience and problem-solving. While some concerns emerged—such as data privacy or lack of knowledge about the technology—they were often balanced by a willingness to engage with AI tools.

Regression Analysis

The analysis on older adults' interest in using AI for personal finance decision-making suggested older adults with greater concerns about financial scams are more likely to show higher interest ($OR = 2.65$, 95% CI [1.29, 5.42], $p = .0077$). More favorable perceptions of AI's role in daily life were also marginally associated with greater interest in using AI for personal financial decisions ($p = .0614$).

Comfort with using AI for personal financial decisions was positively associated with both concerns about financial scams and the perceived importance of AI in daily life. Older adults with greater concerns about financial scams were more than twice as likely to feel comfortable using AI tools for personal financial decisions ($OR = 2.10$, 95% CI [1.07, 4.11], $p = .031$). Furthermore, individuals who consider AI-based technology important in their daily lives were more likely to report feeling more

comfortable asking AI to assist them with their questions about personal finance decisions (*OR = 2.35, 95% CI [1.08, 5.14], p = .032*).

Trust in AI to detect financial scams and provide personal finance advice were not significantly associated with any of the included variables. Similarly, beliefs about AI's ability to protect against financial scams were not significantly associated with any of the predictors in the model.

Overall, the results suggested partial support for Hypotheses 1 and 4, while other hypotheses were not supported by the data. Concern about financial scams (H1) significantly predicted interest ($p = .007$) and comfort ($p = .031$) in using AI for personal financial decisions but was not significant in predicting trust or belief in AI's ability to prevent scams. Similarly, the perceived importance of AI in daily life (H4) significantly predicted comfort in asking AI to assist with questions about personal finance decisions ($p = .032$), but not other outcomes. The remaining hypotheses — H2 (effect of technology proficiency), H3 (effect of digital literacy), H5 (effect of prior AI use), and H6 (effect of experience with scams) — were not supported, which might be due to the small sample size.

DISCUSSION

This study investigated older adults' perceptions of AI use for personal finance decisions, focusing on their trust, comfort, and interest in AI-powered applications. Overall, respondents expressed a willingness to use AI for financial decision-making, especially when its benefits are clearly explained and their concerns about data security are properly addressed. However, their attitudes were shaped by specific concerns and experiences, and their adoption intentions were cautious rather than uniformly enthusiastic.

Concerns about financial scams emerged as the most consistent predictor of positive attitudes toward AI use for personal finance decisions. Participants who expressed greater worry about financial fraud were significantly more likely to report interest in using AI and feeling more comfortable in asking AI to assist them with their questions about personal finance decisions. This aligns with prior research on risk sensitivity and openness to digital safeguards among older adults, who tend to evaluate new technologies based on perceived risk, relevance, and trust in protective mechanisms (Frik et al., 2020). Perceptions of AI's importance in daily life were also associated with greater comfort, suggesting that general attitudes toward AI can shape willingness to adopt it for high-stakes tasks.

However, several hypothesized predictors—including digital literacy, technology proficiency, and prior AI use—did not significantly explain attitudes across models. It is important to note that these variables were self-reported, which may limit the precision of their measurement. Participants may overestimate or underestimate their own skills, and their actual digital behavior may not align with their perceived proficiency. Additionally, self-selection bias could be a factor—those with strong opinions about AI, whether positive or negative, may have been more inclined to participate in the survey. Also, most survey respondents were well-educated, so the findings should be interpreted and generalized with caution. Finally, the small sample

size and the exploratory nature of the research may have contributed to the lack of statistically significant results for some of the hypotheses.

Responses to open-ended questions revealed privacy concerns, uncertainty about how AI works, and worries about reliance on non-human systems. At the same time, many respondents expressed optimism about AI's potential for convenience, problem-solving, and scam protection. Even among those unfamiliar with AI tools, openness and curiosity about AI were common. These findings point to opportunities for designing AI applications that are not only secure and functional but also tailored to older adults' needs. Increasing transparency, improving digital literacy through education, and providing trustworthy AI solutions may enhance AI adoption in financial contexts.

CONCLUSION

This study provides early insight into older adults' perceptions of AI in financial contexts, highlighting both interest and caution. Results suggested that older adults who are more concerned about financial scams and who view AI as important in daily life tend to show greater interest and comfort in using AI for personal financial decisions. Participants expressed optimism about AI's potential as a supportive tool, particularly for fraud detection and financial decision-making, but also voiced concerns about privacy, security, and human oversight. These findings underscore the importance of designing AI systems that are transparent, trustworthy, and sensitive to the needs and experiences of older users. Future research should examine how varying educational levels among older adults, the use of explainable AI techniques, and the application of human-centered design strategies can improve trust and enhance AI adoption in personal finance decision-making.

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