



EVALUATING THE INFLUENCE OF AI - POWERED FINANCIAL ADVISORY SERVICE ON CUSTOMER DECISION-MAKING COMPARED TO TRADITIONAL IN-PERSON BANKING ADVISORS

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Abstract

Aim The purpose of this study is to assess how consumer trust and decision-making are affected by AI-powered financial advisory services. The study examines user preferences, satisfaction levels, and the influence of demographic characteristics on consumer views of AI in financial planning by contrasting AI-driven and conventional advice approaches. **Methods and Materials** Techniques and Resources. The study employed a mixed-methods approach, integrating both qualitative interviews and quantitative surveys. A sample of 100 people took part, including financial experts and banking customers. To find trends in trust in financial advising services, data were gathered through focus groups and structured questionnaires. SPSS was used for analysis, which included chi-square test, ANOVA, and correlations. **In conclusion** The results indicate that there is no discernible relationship between age and confidence in financial services driven by AI. AI-based advisers improve accessibility and efficiency, but in order to satisfy a range of customer demands, they must be integrated with traditional banking. In order to maintain a balanced strategy that builds trust and enhances financial decision-making, financial institutions should deploy AI while addressing consumer concerns.

Introduction

Financial advising services driven by artificial intelligence (AI) are revolutionizing how both individuals and corporations handle their money. (Wuermeling and Müller 2024) the paper showed about applications potential and regulatory approaches. These services use automation, big data, and machine learning to offer risk assessments, investment suggestions, and individualized financial advice (Milas et al. 2021) the paper showed about does it matters where you search. In contrast to conventional banking advisors, AI-driven solutions use chatbots, robo-advisors, and automated platforms that examine market and financial trends to provide accurate, data-driven recommendations. (Wuermeling and Müller 2024) the paper showed application potential and regulatory approaches. By improving accessibility, efficiency, and accuracy in financial decision-making, artificial intelligence (AI) is transforming the financial sector as it develops further. The capacity of AI-powered financial advising services to offer objectives (Grigsby et al. 2025) the paper showed that disclosures of trust and intangibility, affordable, and real-time financial information is what makes them significant. Conventional in-person consultants are prone to subjectivity, availability, and human prejudices, and their prices are frequently greater. Conversely, AI-powered advisors are available around the clock, reduce human mistakes, and offer customized suggestions derived from extensive financial data research. (Govindarajan et al. 2025) the paper showed overcoming barriers. People who need fast, data-driven investment decisions or financial planning without having to arrange face-to-face meetings with human advisors may especially benefit from this breakthrough. AI-powered financial advising services are extensively used in many industries, such as corporate financial planning, wealth management, insurance, and personal finance management. AI is used by robo-advisors like Wealthfront and Betterment to suggest investing portfolios based on a person's risk tolerance and financial objectives. (Elischberger and Jiang 2025) The paper showed deep learning meta-architecture to detect. AI chatbots are used by banks and fintech companies to help clients with loan advising services, savings planning, and budgeting. Additionally, (Raymondng et al.

2023) the paper showed about future of financial advisory. by instantly spotting questionable activity, AI-driven fraud detection systems contribute to the security of financial transactions. AI's use in financial advising services will improve client decision-making even more as it develops, increasing the efficiency and accessibility of financial planning.

Keywords: Customer Decision-Making, Traditional Banking Advisors, Digital Banking, Consumer Trust, Technological Adoption, Banking Innovation, Independent T-Test, Future of Financial Advisory Services

Material And Method

In contrast to typical in-person banking advisors, this study from [Your Institution Name] employs a mixed-methods approach to investigate the impact of AI-powered financial advising services on client decision-making. The study's broad sample consists of 100 people, including both banking consumers and financial professionals. Quantitative data will be gathered and consumer preferences, trust, and satisfaction levels with both traditional and AI-powered financial advising services will be evaluated using a standardized questionnaire with Likert scale questions. In order to acquire qualitative insights into the experiences and perspectives of customers, focus groups and interviews will also be held. This study design guarantees a thorough comprehension of the elements affecting financial decisions. creating in human-advised banking and AI settings. Meaningful insights that can enhance AI-driven financial advice services and their integration with conventional banking models will be obtained from a combination of quantitative and qualitative data.

A structured questionnaire will be distributed via Google Forms to those who fit the eligibility requirements in order to create a sample for Group 1 (Banking Customers). This group will include individuals who have worked with both traditional banking advisers and AI-powered financial advisory platforms (such as robo-advisors and AI-driven investment tools). The questionnaire will be improved through a pilot test to guarantee its efficacy and clarity.

Information on informed consent will be included in the Google Form's introduction, which will highlight the secrecy and voluntary nature of participation. The link to the questionnaire will be sent via email, messaging apps, and digital channels in order to promote participation. In order to guarantee accurate responses, data collection will be carried out within a certain duration using Google Forms' validation tools. Following collection, the data will be exported for in-depth statistical analysis to pinpoint consumer preferences and trends in financial advising services.

A focused strategy will be used to enlist members of Group 2 (Financial Professionals), which includes fintech specialists, investment analysts, and financial advisers. Direct outreach, professional networks, and industry forums will be used to find possible participants. Personalized invitations with a thorough description of the study's goals, voluntary participation, and confidentiality guarantees will be issued via official email addresses or messaging apps. Participation will be contingent upon informed consent. To gather expert opinions on the relative merits of AI-powered and conventional financial advising models, data will be gathered via professional-specific questionnaires or structured interviews. Strict data security procedures will be put in place to preserve anonymity, and scheduling will be flexible to fit participants' availability. The gathered information will be methodically examined to learn what professionals think about AI's influence on financial judgment.

Statistics Analysis

Significant new information on the relative effects of digital and traditional banking systems on customer trust has been made possible by the statistical analysis carried out using SPSS (IBM version 27) and the chi-square test, correlations, and One-Way ANOVA. A comparison of trust levels between digital and traditional banking customers was made easier by the chi-square test, which provided a better grasp of any potential distinctions between these groups. The correlations provided important insights into changing consumer attitudes by capturing differences in trust within the same group throughout various time periods or banking settings. An extensive analysis of trust disparities across different demographic groups was made possible by the One-Way ANOVA, which brought to light significant patterns and variances. The importance of these investigations is highlighted by the statistical results, which are backed by p-

values. Our knowledge of how traditional and digital banking systems affect customer trust is improved by these findings, which also give financial organizations data-driven insights to strengthen security protocols and increase customer trust in banking services.

Results

FIG 1.1: The most important finding is that every p-value exceeds the conventional significance criterion of 0.05. This indicates that age and agreement with the statement do not statistically significantly correlate. Stated differently, there is insufficient evidence in the data to draw the conclusion that an individual's age affects their perception of AI-powered advising services. According to the table, 68% of the cells had anticipated numbers below 5. This may be an issue for chi-square testing since it may compromise the accuracy of the findings. To raise the predicted counts in certain situations, think about merging some categories together or use another test, such as Fisher's exact test.

FIG 1.2: Those who "strongly agree" with the statement have the lowest mean age, while those who "strongly disagree" have the oldest, according to the data. As agreement declines, the mean age generally rises, indicating that older people are generally less confident in AI's capacity to offer individualized financial advice. The error bars give a visual representation of the variability within each group by showing both the 95% confidence interval and ± 1 standard deviation.

FIG 2.1: Compared to the usual significance level of 0.05, the p-value of .752 is significantly larger. This indicates that the mean age of the various agreement groups does not differ in a way that is statistically significant. In other words, there is insufficient evidence in the data to imply that there is a substantial age difference in the degree to which people agree or disagree with the statement regarding AI-powered financial advice. In conclusion, the results of the ANOVA and chi-square tests indicate that, in this specific dataset, age does not significantly influence people's perceptions of AI-powered advising services.

FIG 3.1: Age and agreement with the statement appear to have a very weak positive association, according to the Pearson correlation coefficient of .120. However, this link is not statistically significant, as indicated by the p-value of .217 (higher than 0.05). Put more simply, this indicates that there is insufficient evidence in the data to draw the conclusion that an individual's age and perception of AI-powered advice services are significantly correlated. Even though the correlation coefficient is somewhat positive, it is not strong enough to be regarded as significant or trustworthy. This outcome is in line with the findings of the earlier ANOVA and chi-square tests, which likewise did not discover a significant correlation between age and opinions of AI in financial advice.

Discussion:

TABLE 01: The p-value is greater than the standard significance threshold of 0.05. This suggests that there is no statistically significant relationship between age and agreement with the statement. In other words, the data does not support the conclusion that an individual's age influences how they see AI-powered advice services. The table shows that the expected numbers for 68% of the cells were less than 5. This could be a problem for chi-square testing because it could make the results less accurate. Consider combining some categories into one or using another test, such as Fisher's exact test, to increase the expected counts in specific circumstances.

TABLE 2: The investigation looked at how opinions about AI-powered advising services related to age. Age did not significantly correlate with agreement with the statement "AI-powered advisory services can provide personalized financial advice," however there was a minor positive connection ($r = .120$, $p = .217$). ANOVA and chi-square tests, which also did not uncover a significant correlation between age and views on AI in financial advising, corroborated this finding

TABLE 03: With a p-value of .752 and an ANOVA test result that is larger than the 0.05 limit, the differences between the groups are not statistically significant. Between-group mean square is 1.200, while the within-group mean square is 2.292. Since the p-value is greater than 0.05,

which indicates that there is no significant variation between the groups, any detected variations are most likely the product of random chance rather than a significant influence. Because of these results, we are unable to reject the null hypothesis and infer that there is no significant difference between the groups in the variable being tested.

Limitations of the study

Several limitations could affect the study's findings. Its dependence on survey data, which is limited to a specific region and subject to self-reporting bias, is the first factor that reduces its generalization. The cross-sectional nature of the study precludes an analysis of long-term shifts in consumer decision-making. Furthermore, differences in respondents' levels of digital literacy may have an impact on how they view AI-powered financial advising services. Another disadvantage is the speed at which AI-driven financial systems are developing, which may eventually render the findings obsolete. Unconsidered external elements, like economic conditions, cyber security concerns, and financial crises, can potentially influence customer decision-making. Comparisons between AI-powered and conventional in-person banking counselors may also be impacted by these outside variables. Finally, the study may not fully capture the intricacy of client decision-making processes, despite using both quantitative and qualitative approaches. It's possible that elements like the degree of human engagement, service quality, and confidence in AI recommendations haven't been fully considered. Future studies should use longitudinal studies and more varied samples to gain a more thorough grasp of consumer decision-making.

Conclusion:

This study highlights the changing dynamic between AI-powered financial advising services and conventional in-person banking advisors, while also offering valuable insights into customer decision-making and preferences. The findings of the chi-square test show a high level of confidence in AI-powered advisory services, despite the ANOVA showing significant variations in decision-making between clients using AI-driven and traditional financial advisors. Correlations test results, however, do not indicate any significant differences across demographic

groups, indicating that demographic considerations alone may not have a major impact on some customer selections . All things considered, these findings highlight how crucial it is to combine AI-powered financial advising services with conventional banking methods in order to satisfy the various demands of customers. Additionally, they offer financial institutions insight and full information on how to improve client satisfaction, security, and trust in both AI-powered as well as conventional advising services.

Tables And Figures

The most important finding is that every p-value exceeds the conventional significance criterion of 0.05. This indicates that age and agreement with the statement do not statistically significantly correlate. Stated differently, there is insufficient evidence in the data to draw the conclusion that an individual's age affects their perception of AI-powered advising services. According to the table, 68% of the cells had anticipated numbers below 5. This may be an issue for chi-square testing since it may compromise the accuracy of the findings. To raise the predicted counts in certain situations, think about merging some categories together or use another test, such as Fisher's exact test.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	20.014 ^a	16	.220
Likelihood Ratio	19.659	16	.236
Linear-by-Linear Association	1.532	1	.216
N of Valid Cases	107		

Compared to the usual significance level of 0.05, the p-value of .752 is significantly larger. This indicates that the mean age of the various agreement groups does not differ in a way that is statistically significant. In other words, there is insufficient evidence in the data to imply that there is a substantial age difference in the degree to which people agree or disagree with the statement regarding AI-powered financial advice. In conclusion, the results of the ANOVA and chi-square tests indicate that, in this specific data set, age does not significantly influence people's perceptions of AI-powered advising services.

ANOVA Test Regarding AI-powered advisory services can provide personalized financial advice					
@4_C					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.292	4	.573	.477	.752
Within Groups	122.437	102	1.200		
Total	124.729	106			

Compared to the usual significance level of 0.05, the p-value of .752 is significantly larger. This indicates that the mean age of the various agreement groups does not differ in a way that is statistically significant. In other words, there is insufficient evidence in the data to imply that there is a substantial age difference in the degree to which people agree or disagree with the statement regarding AI-powered financial advice. In conclusion, the results of the ANOVA and

chi-square tests indicate that, in this specific data set, age does not significantly influence people's perceptions of AI-powered advising services.

Correlations			
		AGE	@4_C
AGE	Pearson Correlation	1	.120
	Sig. (2-tailed)		.217
	N	107	107
AI-powered advisory services can provide personalized financial advice	Pearson Correlation	.120	1
	Sig. (2-tailed)	.217	
	N	107	107

Those who "strongly agree" with the statement have the lowest mean age, while those who "strongly disagree" have the oldest, according to the data. As agreement declines, the mean age generally rises, indicating that older people are generally less confident in AI's capacity to offer individualized financial advice. The error bars give a visual representation of the variability within each group by showing both the 95% confidence interval and +/- 1 standard deviation.

