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Perception of Automated Wealth Management by Retail Investors

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Abstract

Artificial Intelligence is advancing rapidly. With the emergence of tools like ChatGPT and other AI programs from major companies, AI is becoming increasingly powerful. This raises the question: can it provide human-level advice, particularly in the realm of finance? To explore this, we conducted a survey of 30 individuals in India of varying age, income and experience. The objective was to understand the public perception of AI financial advisors. Many respondents had over 10 years of market experience, and the results suggest that people are open to trying AI advisors in conjunction with human advisors, as many believe AI still lacks the ability to understand clients' emotions fully. Further discussion on the results of this study is shown in this article.

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Introduction

AI advisors represent a significant advancement in the realm of digital investment management by utilizing sophisticated algorithms to automate numerous aspects of the investment management process. These platforms provide users with personalized investment portfolios that are tailored to their specific financial goals, risk tolerance levels, and investment time horizons. The algorithms employed by AI systems are capable of rapidly and accurately analyzing extensive datasets, which encompass market trends, historical financial data, and individual investment portfolios.

Through the processing of this information, AI can identify patterns and generate insights that may elude human advisors, thereby facilitating more informed investment decision-making. Additionally, AI-powered risk management tools are instrumental in evaluating a wide array of risk factors associated with both investments and broader portfolios. These tools provide real-time risk assessments, enabling investors and advisors to modify their strategies proactively in order to mitigate potential losses. This integration of AI into investment management signifies a transformative shift towards more data-driven and responsive financial advisory services.

AI can optimize investment portfolios by considering factors such as risk tolerance, investment goals, and market conditions. These algorithms can suggest the most suitable asset allocation and investment strategies to maximize returns based on your risk appetite. AI algorithms can provide personalized investment recommendations based on an individual's financial situation, goals, and risk appetite. This personalized approach can help investors make better decisions that align with their specific needs and preferences. AI-driven trading algorithms can execute trades automatically based on predefined criteria and market conditions. These algorithms can analyze market data in real-time and execute trades at optimal times, potentially increasing trading efficiency and profitability.

AI-powered chatbots provide personalized financial advice and support to clients. These virtual assistants can answer queries, provide insights, and offer guidance on financial planning and investment decisions, enhancing client engagement and satisfaction. Overall, AI has the potential to revolutionize wealth management by improving decision-making, optimizing portfolios, reducing risks, and enhancing client experiences.

Evolution of Wealth Management and AI Integration

Before the technological revolution, wealth management was predominantly characterized by personalized advisory services delivered by human advisors. This process was often time-consuming and costly, restricting access mainly to high-net-worth individuals. Decision-making relied heavily on the advisor's expertise, with minimal utilization of technology, which often led to biases and oversights. In the late 20th century, financial markets transitioned from physical locations where investors and brokers interacted to a fully online process conducted through algorithms and automated systems. This revolution made the market more accessible and all information available online for anyone to see. This availability of information soon allowed for technology to bring the rise of algorithms and scans to determine financial positions for their user and even make automatic trades without any human interference. Back testing has been done on many algorithms with varying results due to different approaches and conditions given to understand their performance and have also gone through various stress tests. Still, it is important to note that the result of these stress tests may not be entirely accurate and could have been whitewashed for any motive. Overall, algorithmic trading and advisory tools are incredibly popular and rapidly evolving and through this study, we aim to understand what is the perception of investors on these tools and other important related information.

Understanding the working of such tools

Many diverse techniques are used by AI algorithms and other such advisory tools reflecting upon its user's desired strategy. These could include scans of an indicator that can also vary based upon the optimal period for each parameter like timeframe, expected length, etc. Based on these parameters it calculates a point at which the desired signal will be received. The algorithm does this for all assets whose information is available to it and whenever some asset hits that point it adds them to a list for the user to look upon and make decisions accordingly. If the algorithm can enter trades on its own then it will make those trades whenever the desired signal is made. It also calculates stop loss and take profit based on the strategy decided for those. These scans can involve individual indicators or a combination of a few. Let us take an example of how one can work:- If the user wants a list of shares of the Nifty 500 index that have a return of equity greater than 30% in the last year's statements and also have an RSI greater than 50 in its daily chart using the last 15 closes, then the algorithms will determine the ROE of all shares of Nifty 500 and also calculate the RSI using the close of last 15 days then those companies of NIFTY 500 whose shares who have both ROE > 30% and RSI > 50 will be added to a list for the user to see. Some tools even offer to determine these criteria for you based on your risk appetite, capital amount, and so on for the less knowledgeable investors.

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Personalization and portfolio management strategies

Wealth management platforms powered by artificial intelligence are transforming portfolio management and personalisation through the use of advanced algorithms to create customized investment plans. To generate personalized portfolios, AI analyzes a wide range of criteria, including financial goals, income levels, spending patterns, and much more. Traditional methods frequently relied on basic risk profiles and standard asset allocation models. One prominent robo-advisor, Wealthfront, is an example of this innovation. The AI system at Wealthfront uses such tools to customize portfolios based on each user's unique requirements and risk tolerance. Another such case is Betterment, one of the first and one of the largest AI-powered investment platforms, which is another interesting example. The robo-advisors offered by Betterment offer personalized portfolio management by automatically adjusting investments to maintain an optimal asset allocation. Their algorithms take into account the goals, tax situation, and time frame for investment of the user. Betterment further customises the investing experience by optimizing portfolios for after-tax returns—a factor that traditional systems often ignore. These platforms serve as important examples of how AI-driven personalisation improves portfolio optimisation, going beyond basic risk assessment. The dynamic nature of artificial intelligence offers a substantial advantage over traditional wealth management strategies by ensuring that portfolios remain aligned with the client's evolving financial status and shifting market conditions. The precision and efficiency that AI can provide allow investors to reach their financial goals while minimizing manual labour.

Cost efficiency comparison with traditional financial advisors

Financial Advisors are expensive, this has become common knowledge but with the emergence of AI advisors, these costs can be brought down for practically the same or a superior service. An average financial advisor costs around 1-2% of your assets under management annually or an average annual fee of $4,750. Let us take the cost of the aforementioned Wealthfront as the representative for companies providing similar services. Wealthfront’s annual plan costs around 0.25% of AUM which includes services like automated portfolio management, tax-efficient investing, and financial planning tools for its users. This is a significant drop from the 1-2% of traditional financial advisors. However, it is important to note that this price drop comes with the added disadvantage of no human touch to your investments. Some studies show that people trust even low-expertise financial advisors more than robo advisors, this is possibly the reason companies like Wealthfront have made their services this cheaper.

Literature Review

Luxian Zhang et al. This research delves into how consumers perceive trust, performance expectancy, and their willingness to engage with different types of financial advisors, whether human or robo-advisors. They conducted three experiments, where participants were randomly assigned to interact with human advisors of varying expertise—some were highly experienced, while others had lower levels of expertise—alongside robo-advisors. The analysis revealed that consumers tend to prefer highly expert human financial advisors over robo-advisors. Interestingly, there were no notable differences in performance expectancy and engagement intention between robo-advisors and less experienced human advisors. This finding contrasts with earlier studies indicating that novice human advisors are generally trusted more than AI options.

Another intriguing aspect of the study involved how the appearance of robo-advisors influences investment behaviour. It turned out that robo-advisors designed to look more human tend to encourage prevention-focused consumers—those who prioritize avoiding negative outcomes—to invest more money. However, this effect doesn't hold for promotion-focused consumers, who are driven by the desire to achieve positive results. Overall, this research contributes to the understanding of trust, especially in the context of AI technologies, and highlights the complex dynamics that impact consumer decisions in the financial advisory space.

Hui Zhu et al. highlight the rapid rise of Robo-advisors in the financial sector, noting how both providers and consumers have quickly embraced this technology. Despite this growth, there's a noticeable lack of studies that focus on real customer experiences with these automated financial advisory systems. One area that hasn't been deeply explored is how the design of Robo-advisors affects how customers perceive and adopt them. To shed light on this, the researchers conducted a study with 24 participants who had different levels of experience and knowledge about investing. Each participant was asked to use a Robo-advisor from a retail bank and complete certain tasks. Through careful observation and follow-up interviews, the researchers discovered that many users struggled to understand the social features that Robo-advisors are meant to provide.

A considerable point of concern was the transparency of information presented by these tools; participants found it challenging to grasp the details, which fostered a sense of distrust in the advice given. This scepticism affected their willingness to act on the investment recommendations made by the Robo-advisor. The study also points out that using interactive data visualization could help overcome some of these issues. Overall, the findings enhance our understanding of how customers engage with functional Robo-advisors and suggest design improvements for making these automated systems clearer and more trustworthy in the financial advisory space. Robo-advisors as a form of artificial intelligence in private customers' investment advisory services.

Rizwan Atiq et al. conducted a study aimed at assessing the awareness and perceptions of Indian individual investors regarding robo-advisors within the wealth management landscape. Robo-advisors are automated online platforms designed to assist investors in managing their wealth by recommending portfolio allocations based on specific algorithms. This qualitative study utilized five focused group discussions to gather the necessary information. A purposive sampling method was employed, comprising investors who actively participate in the Indian stock market. A semi-structured questionnaire and homogeneous discussions facilitated the research process, with a total discussion time of 203 minutes. One of the authors moderated the discussions and provided verbatim translations of the audio recordings.

The study identified several critical factors that significantly influenced investor perceptions, including cost-effectiveness, trust, data security, as well as behavioural biases and sentiments. Additionally, participants offered various suggestions for improving investor awareness levels during the discussions. It was noted that some investors view robo-advisors merely as an alternative to fund managers, wealth managers, or brokers for quantitative analysis. They also expressed a strong belief in the necessity of human intervention to understand investor emotions. Therefore, at present, robo-advisors in the Indian stock market serve primarily as a supplementary service rather than a replacement for financial advisors. Given the exploratory nature of the study and the limited number of participants, the findings cannot be generalized to the broader population. Future research is essential to explore the evolving nature of artificial intelligence (AI) and to investigate its ability to capture individual investor sentiments, as well as the human sentiments influencing the market.

Daniel Belanche et al. examines the growing influence of Artificial Intelligence (AI) in the field of financial technology (FinTech). This paper aims to propose a research framework aimed at enhancing the understanding of robo-advisor adoption among a diverse array of potential customers. The authors also predict that factors—such as familiarity with robots, age, gender, and country—play a moderating role in the primary relationships examined.

Data collected from a web survey of 765 potential users of robo-advisors from North America, Britain, and Portugal validate the measurement scales used and provide the foundation for structural equation modelling and multisample analyses of the hypotheses. The findings reveal that consumers' attitudes toward robo-advisors, along with influences from mass media are critical determinants of adoption. Interestingly, the effects of perceived usefulness and attitude are somewhat more pronounced among users with greater familiarity with robots, while subjective norms hold significantly more importance for users with lower familiarity and customers from Anglo-Saxon countries. As a recommendation, banks and other financial institutions should design robo-advisors that cater to a broad spectrum of consumers. Furthermore,

marketing strategies should be tailored to reflect the varying levels of familiarity customers have with robots.

Longbing Cao et al. highlight that financial technology (FinTech) has become increasingly crucial in driving modern economies, societies, technology, and various other sectors. Smart FinTech represents the next generation of FinTech, significantly inspired and empowered by data science and artificial intelligence techniques. This innovative approach integrates a wide range of methodologies, transforming finance and economies to foster intelligent, automated, comprehensive, and personalized economic and financial businesses, services, and systems.

Research in data science and AI within FinTech encompasses recent advancements in smart FinTech across areas such as BankingTech, TradeTech, LendTech, InsurTech, WealthTech, PayTech, RiskTech, cryptocurrencies, blockchain, complex system methods, quantitative methods, intelligent interactions, recognition and response systems, data analytics, deep learning, federated learning, privacy-preserving processing, augmentation, optimization, and enhancements in system intelligence. They provide a thorough assessment of smart financial businesses and their associated challenges, the smart FinTech ecosystem, the DSAI techniques that enable smart FinTech, and some potential research directions for the future of smart FinTech within the DSAI community.

Pauolo Giudici et al. highlights that while innovation in finance is not a new phenomenon, the focus on technological advancements and the speed of implementation has significantly intensified. Fintech solutions that utilize big data analytics, artificial intelligence, and blockchain technologies are being rolled out at an unprecedented rate. These innovations are reshaping the financial industry, creating numerous opportunities that enhance inclusive access to financial services. However, alongside these benefits, fintech solutions also introduce a range of risks that could compromise consumer protection and financial stability. Notable examples of such risks include the misassessment of creditworthiness, non-compliance with market risks, difficulties in fraud detection, and the threat of cyber-attacks. As a result, fintech risk management has emerged as a primary concern for regulatory authorities, highlighting the need for research and the development of new measurement methodologies. There is an urgent global need to boost the competitiveness of the fintech sector by establishing a risk management framework that can effectively oversee fintech innovations without stifling their economic potential. This framework should serve the interests of both fintech firms and regulatory bodies: fintechs require guidance in identifying opportunities for innovative solutions, such as advanced regulatory technology (RegTech), while supervisory entities encounter challenges in monitoring the innovative financial products provided by fintechs, which underscores the necessity for advanced supervisory technology. A crucial step towards transforming

compliance and supervision involves the development of uniform, technology-driven risk management tools that can bridge the existing gap between fintechs and regulatory authorities.

Longbong Cao et al. highlight that finance has emerged as one of the most dynamic domains, characterized by increasingly larger data sets, rapid innovations, and a growing array of applications for artificial intelligence (AI) and data science. This includes areas such as algorithmic trading, cryptocurrency, blockchain technology, peer-to-peer lending, digital and mobile payments, digital assets, crowdfunding, robo-advising, and regulatory technology (regtech) transformation. AI and data science are spearheading a new generation of financial technology (FinTech), which fundamentally disrupts established theories surrounding money, investment, credit, markets, and regulation. Moreover, they empower innovative financial products, services, operations, processes, and ecosystems. They aim for this special issue on AI and FinTech to showcase the latest advancements in FinTech propelled by advanced AI and data science. This includes modelling complex interactions, relationships, and dynamics, as well as examining their impact on big financial data analytics and complex financial behaviours across various financial markets, products, systems, and networks. Additionally, they explore how these advancements drive smart financial innovations in services, markets, operations, processes, products, regulation, and risk management.

Sreedhar Yalamati et al. The field of Artificial Intelligence in finance primarily focuses on the application of AI techniques within economic enterprises. This area has garnered interest for many years, evidenced by the widespread use of traditional AI methods—such as decision trees and linear regression—as well as modern techniques—like deep learning and reinforcement learning—in increasingly expansive spheres of the economy, society, and finance. Rather than merely enumerating specific issues, features, and prospects within finance that have benefited from these AI techniques—particularly those emerging from the realm of new-generation AI and data science —this review aims to present a comprehensive roadmap of the significant challenges, methods, and opportunities encountered in AI research in finance over the past few decades.

The review begins by outlining the unique circumstances and difficulties associated with financial data and processes. Following this, it offers an in-depth classification and succinct overview of the evolution of AI research in finance over recent decades, instilling confidence in the information presented. It then organizes and elucidates the processes involved in learning and data-driven analytics within financial operations. Furthermore, the review includes a comparative analysis and discussion of traditional versus contemporary AI methodologies tailored for the banking sector.

In its concluding sections, the review adopts a forward-looking perspective by examining open issues and opportunities that are poised to shape the future landscape of AI-driven finance and the intersection of AI

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research and finance. This exploration of future possibilities is intended to inspire contemplation about the potential of AI in the financial sector.

Methodology

In this study, a field survey was done to understand the perception of AI advisors in Finance. A total of 23 responses were collected. The survey was conducted in Delhi, India. 40% of the people were between 30 - 50 years old. Around 30% use the help of AI for financial advice. Around 26% use the help of humans as well as AI. Around 30% do not use any kind of help.

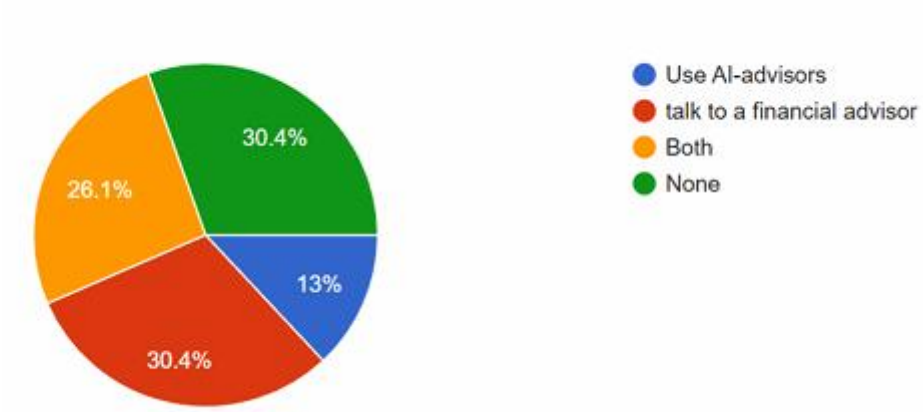

Fig 1: Percentage of respondents using financial help

The majority of respondents expressed a preference for human financial advisors, citing the emotional connection they can establish and the personal touch that is not present in Ai advisors according to them. A financial advisor offers personalized advice, emotional support, and tailored strategies that take into account complex, unique client needs advantages that robo-advisors, with their automated and standardized approaches, cannot fully replicate however some believed that AI advisors can provide cost-effective, 24/7 automated services with data-driven insights and real-time portfolio adjustments, making them accessible and efficient for a wide range of investors. It is important to note that those who have never used Ai advisors also believed the same. The people who had not used Ai advisors were most above the age of 30 and had an average of trust in Ai advisors of approximately 2.5 (out of 10) compared to the overall average of 3.5.

Results and discussion

The survey shows that most of the people still prefer AI advisors, respondents were mainly 30 - 50 years of age. The financial experience of the respondents is shown in Figure 3. Most of the people surveyed had more than 10 years of market experience with 12% of the people have invested more than 1 crore.

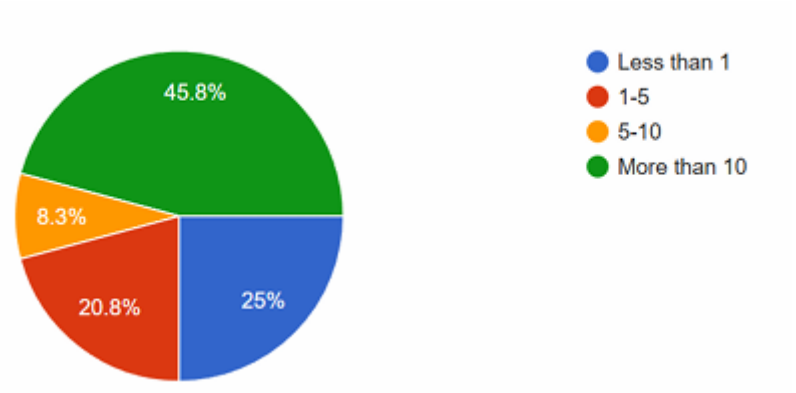

Figure 2. Financial experience of respondents in years.

As we can see in Fig 3, it was clear that a clearly large number of respondents saw Ai advisory tools as the potential to enhance the work of consultants and cannot fully replace the valuable skills and capabilities of human consultants.

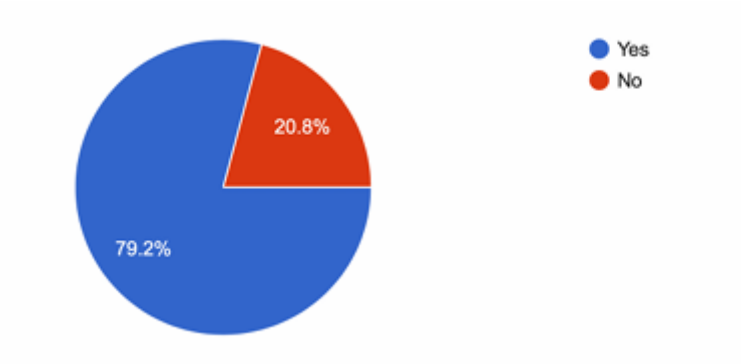

Figure 3. Response chart on 'Would you prefer using a combination of AI-advisors and human advisors to manage your portfolio?'

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Conclusion

In this study, a survey was conducted to gather perceptions regarding AI financial advisors from various age groups. Most participants had substantial market experience. The results indicated that while individuals are hesitant to place complete trust in AI advisors, they are open to considering both AI and human advisors. This suggests a lingering skepticism towards relying solely on AI for financial guidance. The hesitance stems from the fact that AI is trained on publicly available data, which can be either accurate or inaccurate, and lacks consciousness; it cannot think critically but instead relies on a robust memory of existing information. When it comes to financial advice, numerous factors come into play, including company performance, future outlook, media coverage, internal corporate culture, CEO biographies, and more. All these elements together should offer a solid basis for making investment decisions. Ultimately, it can be concluded that as AI technology continues to develop, people are not yet fully ready to trust it entirely.

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