

The Role of Robo-Advisors for Companies and Investors: A Comprehensive Analysis

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ABSTRACT

Robotic services, which have gained traction in the financial and investment sectors as robo-advisors, stem from technological advancements. While industrialized nations have utilized robo-advisors for over a decade, developing countries like India began adopting them around early 2015. This study examines the current state of robo-advisory services in India and evaluates their potential to mitigate behavioural biases among retail investors. From an expert's perspective, the research provides an in-depth understanding of how robo-advisors can help reduce these biases. The professionals involved in the study come from senior management positions across India's BFSI, IT, Fintech, and NBFC sectors, or they work in middleware, product development, or QA teams. Using categories derived from the literature, a structured content analysis was conducted on the transcript. A key takeaway is the importance of improving investor awareness through education and fostering trust. The findings reveal that while robo-advisors are effective at risk assessment and client profiling, they still need to account for investor biases. Currently, robo-advisory systems lack full autonomy.

Keywords: Robo-Advisors, Companies, Investors, Fintech and NBFCs

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Role of Robo-Advisors for Companies and Investors

INTRODUCTION

Robo-advisors represent a new development in the expanding fintech landscape. These platforms can handle large amounts of data and mark an evolution in the way financial advice was traditionally delivered and how it will likely be offered in the future. Also referred to as "automated investment advisors," "automated investment management," or "digital advisory platforms," robo-advisors are becoming increasingly popular. Investors with limited financial knowledge are witnessing the rise of robo-advisors equipped with artificial intelligence and machine learning capabilities, which are gradually reducing the need for human advisors.

It is basically a system in which a computer helps you in managing your investments. The advice given by the computer is generated by the algorithms which are set by the owner of the product for the client according to their needs. For example, some people need their investments to grow at a stable pace so they algorithms are set so the trigger for the investments and the assets in which the funds for that particular client don't go into risky ones and rather goes into non-risky instruments for example index funds, commodities etc. On the other hand the clients who want to grow their investments faster and are willing to take risk and defined drawdown for their target for them the algorithms are set to trigger their buying to relatively higher beta instruments which are usually volatile in nature.

Robo-advisors are digital platforms that use algorithms to provide automated financial planning services with little to no human involvement. Typically, a robo-advisor gathers information about a

client's financial situation and future goals through an online questionnaire, then uses that data to offer advice and automatically manage investments. Some robo-advisors also allow for live consultations, or provide the option to link investment accounts so clients can track progress, make adjustments, and continue working toward their goals. Many of these platforms also give users access to licensed human financial planners who can help prioritize goals and offer tailored suggestions.

As Phoon and Koh (2018) note, there are around 300 robo-advisory services, with new players like Betterment and Wealthfront competing with established firms such as Vanguard, Charles Schwab, and BlackRock. These platforms primarily attract investors by offering a broad selection of exchange-traded funds (ETFs) covering various sectors and regions, enabling widespread participation at moderate costs. While traditional financial advisors often charge annual management fees of at least one percent of assets under management, robo-advisors charge only a small fraction of that, with minimal starting balance requirements.

Today, the market is filled with dozens of robo-advisors, ranging from fully automated services to those offering the option of consulting with a human advisor, sometimes for an additional fee. Since robo-advisors operate through automation, they are less prone to conflicts of interest, which may arise when human advisors prioritize investments that pay higher commissions. According to Brett Hammond, robo-advisor fees typically range from zero — for accounts under \$10,000 — to 0.89 percent for assets below \$1 million.

HISTORY AND BACKGROUND OF ROBO ADVISORS

In recent years, "robo-advisors," automated investment services, have garnered significant attention. The first robo-advisor emerged in 2008, designed to rebalance assets. These platforms can automatically buy, sell, and hold debt, equity, and other assets to maintain a balanced portfolio as market conditions shift. Prior to their development, only human advisors used wealth management software, typically charging fees ranging from 1% to 3% of assets. By the mid-2000s, robo-advisors had gained widespread popularity, allowing individuals to manage their wealth without needing intermediaries.

In 2006, Aaron founded Mint, an online financial aggregator, which succeeded in changing consumer habits. This success spurred increased funding for robo-advisory platforms, with companies like Wealthfront and Betterment initially focusing on managing target-date funds. Over time, robo-advisors introduced services like tax-loss harvesting, enabling investors to offset stock market losses by selling underperforming assets and reducing their overall tax liability.

According to Corporate Insight, robo-advisors managed US \$19 billion by the end of 2014, and assets under management were projected to grow to US \$255 billion by 2020. Betterment, which launched in 2010, led the industry in asset collection and had grown from 10,000 customers in 2011 to over 175,000. As technologists continue developing these platforms, they are expected to fully automate financial advisory services, making them more accessible and scalable. Future services may include college savings, cash flow management, and additional financial tools.

LITERATURE REVIEW

The landscape of robo-advisory, a disruptive force in the financial industry, is intricately painted across a diverse spectrum of publications, ranging from PDF documents, books, and research papers to newspapers, magazines, and YouTube videos. Each medium contributes unique dimensions to the discourse, collectively shaping our understanding of this technological phenomenon.

Even though the Robo-advisory sector is expanding quickly, there hasn't been much scholarly research up to this point. In his paper, Fein (2015) refers to robot advisers as "smart money machines," citing their low cost, speed, and intelligence. An overview of the benefits and drawbacks of robo-advising in the future is given in the article, along with an analysis of a low-cost, reliable model that might be used in conjunction with human advisors. She comes to the conclusion, nevertheless, that the likelihood of Robo-advisory really emerging as a disruptive force actually hinges on the wise investment choices the algorithms' programming produces. Kim and Huxley (2016).

The primary step in the process of investment is to determine the suitable investment policy or strategy to allocate the investor's investment across different asset classes. Equity, bonds, fixed deposits and other assets have associated risk and return. The investors will have to choose the plan wisely and allocate the plan according to the investors' risk appetite and the time horizon. (Cochrane, 1999). (In automated platforms, the investors are required to fill out an online questionnaire that has questions for risk, preference and time horizon. After the questionnaire is filled up, the algorithm then automatically determines the portfolio in which the investor should invest. (Moewes, 2011). The algorithms in the robo-advisory model allocates the asset using mean-variance analysis, an important component of modern portfolio theory.

Jung Et Al in 2018 further stated that automation and the digitalization of investment and financial advisory is an ongoing process. The uniqueness of robo-advisory platforms is that they broaden the services to a currently underdeveloped segment of customers. Human advisory services are structured in four to six major phrases, and there is no established advisory process for robo-advisory platforms quoted Nueesch Et Al. Nussbaumer Et Al suggested to condense the human advisory process into three phase – Configuration, matching and customization.

In the academic realm, research papers on robo-advisory are bastions of in-depth analysis and scholarly inquiry. Rigorous methodologies, statistical analyses, and theoretical frameworks characterize these papers. Academic researchers dissect specific facets of robo-advisory, exploring its impact on investor behavior, the economics for financial institutions, and the regulatory landscape. Peer-reviewed and often published in esteemed journals, these papers contribute to the academic understanding of robo-advisory, pushing the boundaries of knowledge and pointing towards avenues for future research.

In essence, the description of robo-advisory across PDFs, books, research papers, newspapers, magazines, and YouTube videos paints a multifaceted and evolving portrait. It captures the fusion of technology and finance, the challenges that accompany innovation, and the transformative potential of robo-advisory in shaping the future of wealth management. Each medium contributes a unique brushstroke to this canvas, collectively creating a rich narrative that informs, challenges, and stimulates ongoing conversations in the ever-evolving landscape of robo-advisory.

A relatively recent development in the rapidly expanding fintech industry are robo-advisors. Increasingly sophisticated robo-advisors with machine learning and artificial intelligence capabilities have been developed in subsequent iterations, further undermining the role of human advisors and aimed at investors with low financial knowledge or a hands-off, carefree investing style (Tokic, 2018).

Digital platforms known as "robo-advisors" offer automated, algorithm-driven financial planning services with minimal to no human oversight. Using an online survey, a typical robo-advisor gets information from clients about their financial status and future objectives. Based on this information, the advisor provides guidance and invests client funds automatically.

Worldwide, there are about 300 robo-advisories, and traditional financial institutions like Vanguard, Charles Schwab, and BlackRock are competing for market share with startups like Wealthfront and Betterment (Phoon and Koh, 2018). Their primary selling point is that they make it affordable for the general public to invest through a wide range of exchange-traded funds (ETFs) that span many sectors and regions. While robo-advisors only charge a small percentage of the assets under management and have modest minimum beginning balance requirements, professional financial advisors can charge substantial annual management fees of at least one percent of the assets under management. Investors are spared the possible conflict of interest that arises when algorithms create portfolios because human advisors are not financially motivated to recommend inappropriate products to their clients (Lai, 2016). Robo-advisors, as code-governed investing paradigms, overcome suboptimal investing behaviours that may impact do-it-yourself (DIY) investors, like cognitive and affective errors (Benartzi and Thaler, 2007) and portfolio over-trading (Barber et al., 2009).

Robo-advisors are a relatively new feature in the rapidly expanding fintech industry. Over time, more advanced versions of these platforms have emerged, incorporating machine learning and artificial intelligence to cater to investors with limited financial knowledge or those who prefer a more hands-off approach to investing. This development has further diminished the reliance on human advisors (Tokic, 2018).

"Robo-advisors" are digital platforms that offer automated, algorithm-driven financial planning services with minimal human involvement. Typically, these platforms use an online questionnaire to gather information about a client's financial situation and future goals. Based on this data, robo-advisors provide personalized advice and automatically manage investments for their clients.

EVALUATION ON THE CONTRIBUTION TO THE AREA OF THE STUDY

Although research on the impact of robo advisory on businesses is still in its early phases, a rising body of evidence points to a variety of advantages that businesses may be able to gain from using robo advisors. One of the main advantages of robo advisors for businesses is that they can assist in lowering the cost of giving staff and clients financial guidance. Traditional financial counselors are often far more expensive than robo advisors. For instance, according to research by Accenture, robo advisors can assist businesses in cutting the cost of offering financial advice to their employees by up to 80%. Robo advisors can also assist businesses improving the effectiveness of their financial advisory services, which is another advantage for them. Many of the duties that are traditionally carried out by human financial advisors, such as creating investment portfolios and routinely rebalancing portfolios, can be automated by robo advisors. This can free up human financial advisors to concentrate on more difficult duties and give clients more individualized advice.

Finally, robo-advisors can assist businesses in raising customer satisfaction levels. According to a Gartner study, 85% of employees who utilized robo-advisors said they were happy with the service. This is probably due to the fact that robo advisers are simple to use and offer straightforward. The research on robo advising for businesses is generally encouraging. Robo advisers can assist businesses in a number of ways, such as by lowering expenses, increasing productivity, and improving client happiness. The fact that robo advisors are still a relatively new technology and that there is little information available about their long-term success should not be overlooked. Furthermore, not all businesses may benefit from robo advisers. For instance, businesses with complicated financial requirements may require the help of a human financial counselor. The future of robo advising for businesses is probably bright despite these difficulties. The total client asset has exceeded \$ 1 trillion and is expected to be \$ 2.9 trillion by 2025. Robo-advisors are anticipated to gain increasing traction with businesses of all sizes as they grow more sophisticated and their performance data gets better.

OBJECTIVES OF THE STUDY

This study on robo-advisors which is a phenomenon thing nowadays in the field of Finance and Wealth Management is done for fulfilling certain objectives which are as follows:

- To provide a comprehensive overview of the Objectives of Robo-Advisors
- To measure the Types of Robo Advisory Services
- To identify the Robo-Advisors in India
- To analyse the impact of Robo Advisors on Human Advisors
- To measure the Flaws of Robo-Advisory
- To measure that requirement of the Robo Advisors for the companies in India.
- To measure the ethical legal considerations of Robo advisors for giving guidance to the market investors.
- To measure the way that the companies are choosing the Robo-advisor.

METHODOLOGY

Descriptive methodology is used to conduct research on this study of “Role of Robo Advisors for Companies and Investors”. Descriptive method is a research approach that seeks to describe and explain a phenomena or event in a methodical manner. It is often used to answer what, when, where, and how inquiries, but not why. Descriptive research can be used to investigate a variety of issues, such as human behavior, social structures, and economic patterns.

To conduct descriptive research on Robo-advisors, we have collected data from a variety of sources, such as: Academic research papers, News articles, blog posts and magazines, Websites, Youtube Videos, Books etc.

ANALYSIS AND DISCUSSION

1. Objectives of Robo-Advisors

- i. **Evaluating market trends:** Getting aware about robo-advisory's current market situation which includes growth rate, developing rate and major players.
- ii. **Evaluating performance:** Analysing the robo advisory's performance of past in comparison to traditional investment approaches.
- iii. **Customers experience and satisfaction:** Analysis user's experience and level of satisfaction with robo-advisory system, considering personalized possibilities, support and easy usage.
- iv. **Cost benefit analysis:** Taking fees, performance, and total returns into consideration while evaluating how cost effective robo advisors in comparison with standard financial advisors. And assessing the investment risk involved with robo advisors.
- v. **Regulating Compliance:** Rating the degree of investors protection by the robo advisors as well as their attachment to financial regulation.
- vi. **Comparing with traditional advisors:** Analysing the cost, services and clients outcomes while comparing with human financial advisors.
- vii. **Investor behavior:** Researching about how can a robo advisors affect investors risk appetite, time horizons, while making an investment decision and selecting socially and morally conscious products.
- viii. **Looking into the future:** Seeking advancement and technologies in the robo advisory space, such the incorporation of blockchain technology and Artificial intelligence.
- ix. **Scholarly research-** Uplift the scholarly comprehension of robo advisory by carrying out observational investigation and giving perception based on the data.

2. Types of Robo Advisory Services

Auto-pilot: In this mode, you can select from a range of pre-set "packages" tailored to different investment needs. You choose what suits you and continue investing accordingly. For instance, Scripbox, an online mutual fund investment platform, offers three "boxes" for investment: equity, fixed income, and tax-saving.

Goal-based advisory: This type of robo-advisory revolves around asset allocation, where the funds you invest in are based on the information you provide. Some platforms offer basic advice on long-term investments, while others allow you to directly purchase funds as per your needs. For example, FundsIndia.com enables goal-based investing and was among the first to implement an online distribution model. It also offers advisory services and facilitates transactions in shares, company deposits, and corporate bonds.

Full-service: For those who need more comprehensive guidance, a full-service robo-advisor provides a complete assessment. These platforms require you to fill out a detailed questionnaire to gauge your risk tolerance, financial goals, saving and spending patterns, and asset-liability position. The data is analyzed to offer personalized advice on monthly liquidity, net worth, spending habits, taxation, and other financial factors. ArthaYantra is an example of a full-service robo-advisor.

3. Robo-Advisors in India

Despite recent tremendous growth, the Indian Robo-Advisory sector is still in its early phases. By the end of 2023, it is anticipated that the market for robo-advisors would have US\$33.49 billion in assets under management. As of 2023, 110 companies are based in India, according to data analytics firm Tracxn. More than 58% of the total is made up of Mumbai and Bengaluru, which serve an increasing number of investors looking for automated and reasonably priced financial advice services. Numerous services are provided by these companies, including goal-based investing, tax-advantaged investing, and portfolio management. Several well-known businesses in the industry are:

Company	Founded In	Headquarters	Business Model
Kuvera	2016	Bengaluru	Fund-Based Advisory
Groww	2017	Bengaluru	Fund-Based Advisory
Cube Wealth	2016	Mumbai	Comprehensive Wealth Advisory
Markets Mojo	2015	Mumbai	Equity-Based Advisory
Smallcase	2015	Bengaluru	Equity-Based Advisory
Scripbox	2012	Bengaluru	Fund-Based Advisory
ArthaYantra	2007	Hyderabad	Comprehensive Wealth Advisory
Angel One	1996	Mumbai	Fund-Based Advisory

Three categories of Robo-Advisory services are offered by the majority of Indian companies:

- Fund-based Robo-Advisory,
- Equity-based Robo-Advisory, and
- Comprehensive Wealth Advisory.

Monetary making advice to clients based on their financial goals and risk tolerance is emphasised by robot advisors. You can invest only money; no other assets are allowed. These advisors take commissions from fund distributions; they don't charge much to their clients. They are suitable for novices and inexperienced investors who need assistance on their portfolios but do not want to trade stocks actively.

The primary focus of equity-based robot advisers is on stock portfolios. They provide services for fund execution through a number of brokers. They can provide portfolio mix services for investments based on specific industries or investment styles. These platforms frequently charge fixed fees that might be applied once a year or once each transaction. These advisers are best suited for people who can manage moderate to high risk and have a reasonable understanding of the equity market, as they provide market experts and portfolio optimisation.

The goal of comprehensive wealth advisers is to offer full wealth management services. They consider their clients' entire fortune and acknowledge their reluctance to take chances. A whole package of services is linked to the majority of the fees. These platforms provide services for both individuals and households. In addition to portfolio advising, they provide services for financial planning, real estate planning, human resources, and portfolio administration.

Thanks to a number of factors including technological advancement, the increasing availability of smartphones, increased internet accessibility, the transformative 'Digital India' initiative, rising customer demand, increased financial literacy, the rise of investment platforms, a favourable demographic profile, and supportive government policies, the Indian financial landscape has undergone a remarkable transformation. All of these elements have played a part in the rapid growth of Robo Advisory Platforms in India, which have completely changed the way that people manage their money.

With a strong Compound Annual Growth Rate (CAGR) of 43.8% between 2020 and 2025, the Indian Robo Advisory market is estimated to reach a staggering \$53.9 billion in Assets under Management (AUM) by that time. The Robo Advisors Platform's ability to offer affordable, technologically advanced financial advising services has contributed significantly to its rise in popularity in recent years. With the help of this novel strategy, financial advice is now more widely accessible, empowering individuals from all walks of life to achieve their financial goals and make wise investment choices. The increasing proportion of Gen Z, millennials, and even tech-savvy traditional investors is fueling the growth of Robo Advisors in the Indian finance industry, which in turn is propelling the expansion of the FinTech and WealthTech industries in the nation.

Research indicates that in June 2020, there were more than 500 FinTech startups in India. However, as of 2022, India is among the countries with the highest concentration of WealthTech or FinTech businesses, with over 2000 FinTech companies. India is a very desirable market for the FinTech and WealthTech sectors because to several factors, such as increasing per capita income, anticipated changes in investing patterns, favourable demographics, and increasing usage of smartphones and the internet.

The popularity of robo- advisory firms in India has grown significantly in recent years. In response to rising investor awareness and interest among stock market investors, many businesses have established robo- advisory firms in India. These businesses offer specialized investment advice and a wide range of investment services. The main objectives of robo advisory firms are the eradication of human bias, as well as access to real-time data for portfolio revision and short- or long-term gains. Although it is a relatively new idea in India, millennials and Gen Z Investors who are seeking cost-effective, approachable, and practical investment solutions are becoming more and more interested in it. Investors are typically questioned about their risk tolerance, financial objectives, and investment horizon by robo advisory platforms in India. The platform recommends a customized investment portfolio after creating the investor's profile using algorithms. The platform then automatically allocates the investor's funds to the suggested portfolio and periodically rebalances them to maintain their level of risk tolerance and financial objectives. Although it is still in its infancy, robo- advisory

in India is expanding quickly. With a CAGR of 43.8% between 2020 and 2025, the Indian robo-advisory market is anticipated to reach\$ 53.9 billion by 2020.

Investment advice is becoming more accessible, affordable, and convenient for Indian investors thanks to the promising new fintech service Robo advisory. The Securities and Exchange Board of India(SEBI) has established regulations that must be followed by fintech companies operating in the robo advisory space in India. To protect investors and preserve the integrity of the financial system, compliance with regulatory standards is essential.

In order to raise awareness of investing and financial planning, some fintech robo- advisors in India participate in educational programs. In order to assist investors in making wise decisions, this entails offering educational materials, webinars, and tools.

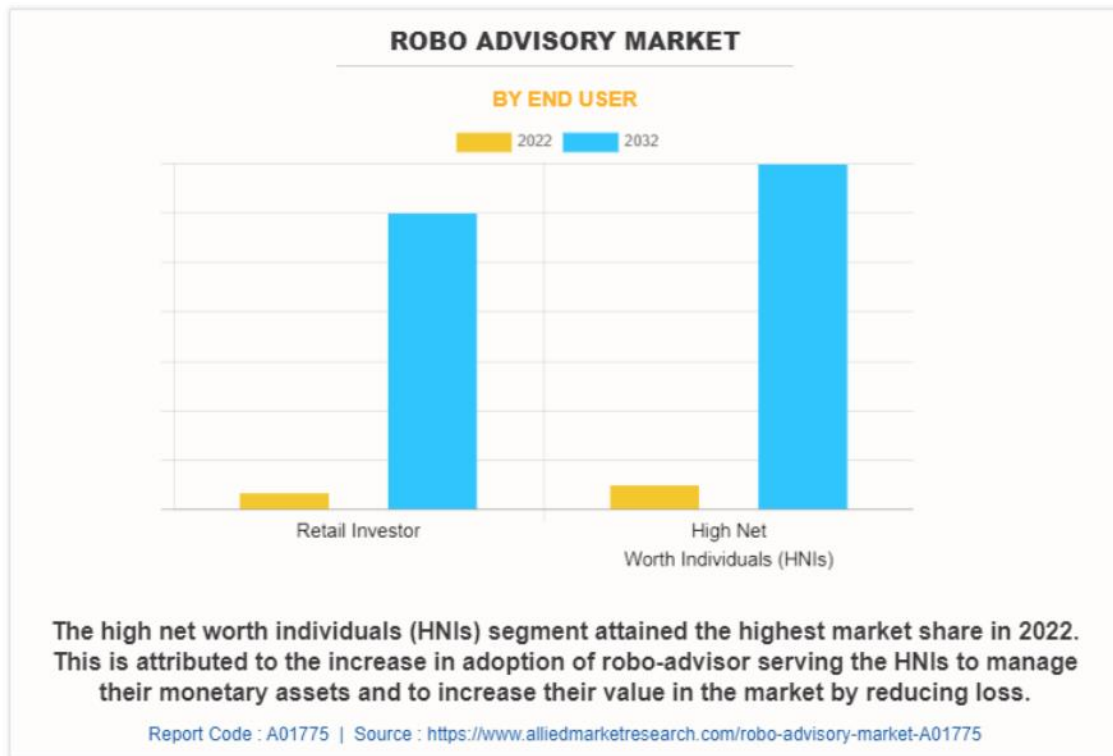
Due to technological advancement, regulatory support, and shifting investor dynamics, robo-advisory services in the Indian fintech sector have grown significantly. Th e focus on user education, regulatory compliance, and technological advancements will be crucial in determining the future of robo- advisory in India as the market continues to develop.

4. Global Market Report

Particulars	Details
Market size value in 2022	USD 5.22 billion
Revenue forecast in 2030	USD 41.83 billion
Growth rate	CAGR of 29.7% from 2022 to 2030
Base year of estimation	2021
Historical data	2017 – 2020
Forecast period	2022 – 2030
Quantitative units	Revenue in USD million and CAGR from 2022 to 2030
Report coverage	Revenue forecast, company market share, competitive landscape, growth factors, and trends
Regional scope	North America; Europe; Asia Pacific; Latin America; Middle East & Africa
Country scope	U.S.; Canada; Germany; U.K.; China; India; Japan; Brazil
Key companies profiled	Betterment; Fincite GmbH; Wealthfront Corporation; The Vanguard Group, Inc.; Charles Schwab & Co., Inc.; Ellevest; Ginmon; Wealthify Limited; Social Finance, Inc.; SigFig Wealth Management

- The market for Robo-Advisors is expected to reach USD 5.22 billion trillion in assets under management by 2023.

- Assets under management are estimated to expand at a 13.99% annual rate (CAGR 2023-2027), resulting in a total value of US\$4.66 trillion by 2027.
- The number of users in the Robo-Advisors market is estimated to reach 234.300 million by 2027.
- In 2023, the average assets under management per user in the Robo-Advisors market is estimated to be \$8.05k.
- In terms of worldwide comparison, the greatest assets under management are found in the United States (US\$1,172,000.00m in 2023).



5. Impact on Human Advisors

Robo-advisors had an vital impact on the role of human-advisors and the examples of the same are as follows:

- Decline in demand for fundamental investing services:** Investors feel more confident handling their own finances as robo-advisors have become more popular and sophisticated. As a result, there is lesser need for fundamental services like portfolio selection and rebalancing.
- Increase in demand for specialised services:** There has been high demand for human advisors who offer specialised services such as retirement planing, tax planning and estate management. The reason for this is that these services are very complex to understand and requires a deep understanding of client's circumstances which human does better than technology.
- Need for human advisors to adapt technology:** In the period of robo-advisors, human advisors who can effectively and successfully use technology to automate activities and offer personalised advice stand a better chance to succeed.
- Rise of hybrid robo-advisors:** Many robo-advisors now provide hybrid services, combining the ease of automated investment with the personalised guidance of a human advisor. This reflects the increasing demand for both robo-advisers and human advisors.

- v. **New pricing schemes:** Some human advisors are abandoning traditional fee-based structures in favour of subscription-based alternatives. This is in response to the low-cost investment services provided by robo-advisors.
- vi. **Emphasis on specialized knowledge:** To differentiate themselves from robo-advisors, human advisors are increasingly emphasising their specialised knowledge and skills. This is because robo-advisors are becoming more sophisticated and can now handle many of the basic investment tasks that were once the exclusive domain of human advisors.

Human advisors are coming up with innovative ways to use technology for their benefits. For instance, some human advisors are automating processes like risk assessment and portfolio rebalancing with the use of Artificial Intelligence (AI) which allows them to focus on providing more personalised advice to their clients.

Considering all the things, investors will probably always need human advisors since they want personalised advice and support. But to keep up with times where impactful technological advancements are taking place, human advisors will need to embrace technology and provide specialised services. And for the same, human advisors are doing the following things:

- Connecting with the clients virtually through video conferencing.
- Using financial planning software to create personalised financial plans for clients.
- Automating tasks with the help of Artificial Intelligence.
- Linking with clients on Social Media platforms and share financial information.

6. Flaws of Robo-Advisory and Who Should Go For It

Robo-advisors perform well when markets are positive, but during downturns, investors may require additional support. It remains uncertain whether these platforms can effectively guide investors through tough times. In achieving good returns, investor behavior plays a crucial role.

A robo-advisor may struggle to determine whether an investor is willing to take risks due to rising stock markets or if they have the capacity to handle potential losses during a market crash. The human touch becomes essential in understanding the deeper motivations behind investments, such as saving for retirement or a child's education. During the accumulation phase of savings, investors might feel uneasy about putting money into stocks due to market volatility or perceived risks. In such situations, personalized guidance may be needed to help investors understand why continuing to invest during a market decline can be beneficial or when it might be the right time to book profits.

While robo-advisors aim to simplify investing, they may not work for everyone. Traditional financial experts argue that while these platforms provide useful advice, it is often incomplete. This is because robo-advisors do not adjust their recommendations to account for or mitigate individual investor psychology.

FINDINGS AND RESULTS

In the next 4-5 years, we will likely have a greater appreciation for robo-advisors as trust is built through positive outcomes. These systems, with their probabilistic nature, may even replace human advisors. While some robo-advisors include alternative assets like real estate and commodities such as gold, most primarily focus on building portfolios with ETFs and bonds. The "black box" nature of the algorithms used by various robo-advisors can result in the same investor being categorized differently by each platform (Geiger, 2017). Certain parameters that control risk assessment and asset allocation remain unknown to the investor, and different robo-advisors utilize distinct methods for rebalancing portfolios.

Robo-advisory services were first introduced in the United States, yet according to one market study, only 20% of investors are aware of them, and just 3% actively use them. A key issue in the adoption of new technologies across industries, including financial markets, is the slow uptake of services and platforms by investors. While adoption rates are low in developed countries, the scenario is different in developing nations like India.

In industrialized countries, there is abundant literature documenting the development, adoption, challenges, and growth of robo-advisory services. However, research on this topic in the Indian context is more limited. Researchers, aiming to gain insight into the current state of robo-advisory services in India and their potential to reduce behavioural biases, have conducted studies using quantitative analysis. These studies sought to understand robo-advisory usage from the perspective of experts, employing a phenomenological approach to explore the topic more deeply. As Creswell and Poth (2017) note, phenomenology seeks to determine the essence of a particular phenomenon.

Although developed countries have an extensive body of literature on the growth and challenges of robo-advisors, the material on this subject in India remains comparatively scarce.

ETHICAL LEGAL CONSIDERATIONS

For companies:

- Its Robo-advisors duty to ensure that the investment advice and recommendations which have been provided are suitable and appropriate for their clients, based on their financial circumstances, risk tolerance, and investment goals. This is known as the fiduciary standard, which requires investment advisors to act in the best interests of their clients.
- Robo-advisors must also be transparent about their fees, investment strategies, and risks. This even includes disclosing the potential for conflicts of interest and the limitations of their algorithms.
- Robo-advisors must take appropriate measures to protect their clients' personal data from unauthorized access, use, or disclosure.
- Robo-advisors must also be financially stable to meet their obligations to their clients. This includes having adequate capital reserves and risk management policies in place.

For investors:

- Investors should understand the risks which involved in investing with a robo-advisor before opening an account. Robo-advisors are not a magic bullet and can still make mistakes and lose money.
- Investors should regularly monitor their robo-advisor account to ensure that the investments are still aligned with their financial goals and risk tolerance.
- Investors should seek professional advice from a financial advisor if they have any questions or concerns about their robo-advisor account.

Few more ethical and legal considerations:

- Robo-advisors use algorithms to generate investment advice and recommendations. These algorithms are trained on actual data, which may be biased. Robo-advisors need to take steps to mitigate algorithmic bias to ensure that all clients receive fair and unbiased advice.
- Robo-advisors may be used to spread misinformation and disinformation about financial markets and investment products. Robo-advisors need to have policies in place to prevent the spread of misinformation and disinformation on their platforms.
- Robo-advisors can make investing more accessible and affordable to a wider range of people. However, it is important to ensure that robo-advisors are designed in a way that promotes financial

inclusion. For example, robo-advisors should have low account minimums and should offer educational resources to help investors learn about investing.

LIMITATIONS OF THE STUDY

- Data on the robo-advisory market's growth rate, major players, and developing trends may be difficult to obtain, especially for emerging markets like India.
- Data on robo-advisory portfolio performance may be limited, especially for newer robo advisors. Additionally, it can be difficult to compare robo-advisory portfolio performance to that of conventional investment approach as they may invest in different asset classes and have different risk profiles.
- It can be difficult to develop objective metrics for user experience and satisfaction. Additionally, survey results may be biased, as users who are satisfied with robo advisory services may be more likely to respond to surveys.
- It can be difficult to compare the cost-effectiveness of robo-advisors to traditional financial advisors, as they offer different services and levels of support. Additionally, the fees charged by robo-advisors may vary depending on the investor's account size and investment strategy.
- It can be difficult to assess the severity of potential cybersecurity flaws and investment risks associated with robo-advisors.
- The regulatory landscape for robo advisors is still evolving, and it can be difficult to assess the degree to which robo advisors comply with all applicable regulations.

CONCLUSION

In order to continue reducing investor biases, our result highlights the necessity of risk analysis and investor profiling by robo-advisors. As of yet, robo-advisory platforms lack the necessary self-sufficiency to effectively conduct risk analysis for individual investors. The evidence indicates that robo-advisors can be a useful tool for investors of all skill levels, notwithstanding the limits of the research on the subject. Investors can design and manage diversified portfolios that are in line with their unique investing objectives and risk tolerance with the assistance of robo-advisors. The research on robo-advisory leads one to the conclusion that robo-advisors will probably become more significant players in the wealth management industry in the future. Robo-advisors are predicted to draw more investors and have a bigger influence on the wealth management sector as they develop and become more widely available. All things considered; robo-advisory has a very bright future.

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