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Exploring the Evolving Landscape of Robo - Advisors in Transforming Investment Decisions in Viksit Bharat

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Abstract

This paper examines the role of Robo-Advisors in transforming investment decisions for wealth management of Indian investors in their path towards Viksit Bharat. It evaluates how agile technology tools such as Robo-Advisors guide the millennials and Generation-Z to manage their wealth management with use of artificial intelligence (AI), machine learning (ML), blockchain and predictive analysis to track the investment decisions. The paper uses the bibliometric analysis review technique with PRISMA methodology with 964-publication pattern derived from Scopus database. The research reviews the historical, present and trend of future publications, using citation analysis to review the contribution of publishers in this area of research. Thematic clusters depict investment patterns through use of automation, AI and ML as key principles. Co citation analysis plots the most trending research. The study addresses significant challenges such as data privacy concerns, trust, irrelevant or not deeply analyzed information, bias towards Robo–Advisors firm's platform for a particular investment, lack of human intervention and ethical issues surrounding AI-driven decision-making models. It further promulgates the need for transformation in the field of Robo-advisors to build trust and confidence among investors, address anxiety and safety concerns, built assurance towards usage of Robo-Advisors and personal data confidentially. This can result in creation of digital wealth and overall economy wellbeing aiming to achieve Viksit Bharat milestone. The contributions by academic publishers, existing surveys and statistics provide a valuable trend to the policy makers for enhancement of Robo-Advisors tools and collaboration with Fin-tech firms in this field, thus building confidence and trust among investors, and achieving the goal of digital economy growth and Viksit Bharat.

Key Words: Robo-Advisors, wealth management, AI, artificial intelligence, machine learning, ML, automation, India, millennials, Generation- Z, Viksit Bharat.

1. Introduction

1.1 Robo – Advisors

The fast-paced transformation in financial technology has led to innovation in financial services sector in multiple areas. This advancement is particularly supporting investors in decision making for their personal saving options. A significant innovation in the industry is that of Robo-advisors (Brenner & Meyll, 2020). It is a technology driven service which guides investors in investment planning at a fraction of service cost using algorithms and predicative model based on a series of responses to the questions asked from the investors. These advisors eradicate the need and burden that goes into manual paperwork, and are usable at a cost lower than traditional investment advisors. These services can be easily accessed from the comfort of home, while moving around the world using mobile phones, depicting their easy to use and round-the-clock accessibility.

The Financial Technology (FinTech) sector in India comprises of a variety of segments and is distinguished by its rapid adoption rates and policy-driven integration. This growth is supported by several government-led initiatives, including Digital India, Jan-Dhan Yojana, and Direct Benefit Transfer (DBT), giving the country a strong edge towards its goal of becoming a digitally inclusive Viksit Bharat economy by 2047 (Vij, 2025). As India progress towards achieving this goal, Robo-advisors will continue to play an important role in the financial wealth management sector of the country through systematic support on financial inclusion to all levels of the society. This makes them a highly relevant and innovative approach for technological advancement, minimizing

risks of frauds and spam, easing workload through automation and most importantly staying aligned with the digital trends shaping the world.

According to Statista (2025), India's Assets under management in the Robo-Advisor market is forecasted to show an annual growth rate (CAGR 2025-2030) of 9.63% reaching the total amount of ₹3.11tn by 2030. This further enhances the need for technological tools for investment support to investors who look at Bharat as a next generation growing economy. Financial institutions and governments maintain finance regulations to mitigate risks and uphold transparency. However, despite these advancements, integrating technology into human investment decisions in the form of Robo advisors presents significant challenges, including data privacy concerns, and ethical issues surrounding AI-driven decision-making. These issues raise crucial questions about investment decisions using Robo-Advisors. Further, with the fast-paced advancement of technology developed by peers, the Robo-Advisor framework often struggles to keep pace, leading to a gap between market conditions and advisory risks.

Globally, the rapid pace of innovation particularly in artificial intelligence, big data, robotics and digital transformation in the financial sector, has resulted in high level of growth of the Robo-Advisory market. Countries such as the United States, Australia, Germany, and China have seen growing integration of Robo-Advisors into financial planning, and investor decision making. Adding to this, the report by Statista (2024) indicates that Australia & Oceania are expected to lead the amount of average assets under management per user in the Robo-Advisors segment of the fintech market with 156 thousand U.S. dollar. As a developing nation, this sets a not to be missed opportunity for India to leverage this technological advancement in the FinTech sector, especially considering the power of youth the country possess. Conducting a bibliometric analysis on usage of Robo-Advisors in investment decision transformation holds a significant direction and provides insight to both millennials and Generation-Z. Through the review of publications, keywords, themes and citations, a bibliometric analysis provides for key trends and emerging tendencies in the usage of Robo–advisors for investment decisions. It further identifies gaps in research and future recommendations for usage of agile regulatory technologies for investors and even beyond that, for the broader financial service sector, with a common goal of paving the path of growth for Viksit Bharat.

1.2 An overview of Robo – Advisor

Robo advisors in our Viksit Bharat are evolving the landscape of transforming investment decision-making through usage of technology. This makes an edge over traditional manual model and overcomes bias of personal investors advisors. Robo advisors use artificial intelligence tools to advice on investment decisions with algorithms platforms, and predictive analysis tools to analyse the investors data which reflects Bharat digital transformation journey. Fan & Chatterjee (2020) reflected on the features of Robo-Advisors which includes automatic functioning of portfolio management and investment advises, minimum human involvement which makes investors from various fields to contribute to financial sector through usage of these digitation tools.

With the help of mobile application, Robo advisor can help investors leverage their services. These investorsjust need to provide their financial goals, know your customer (KYC) documents to verify their identity, and answer a series of questions instead of relying on pen paper forms. Based on the information gathered, Robo advisors generate real time profile of the investors using AI tools. A key benefit of using such tools is the personalization of the investor profile based on changing market conditions, risk taking capabilities, and their personal circumstances.

In other words, these innovative Robo-advisor platforms provide low-cost automated investment portfolio rather than relying of conventional wealth advisory services (Phoon & Koh, 2017).

1.3 Robo Advisors vs personal human advisors

Millennials and Generation Z have emerged as the primary early adopters of Robo-Advisors, broadly due to the cost efficiency and minimal entry barriers (Singh & Karamcheti, 2025). Traditional advisors often visit or call investors, sometimes making fake or high-end claims to them. Though they do promise and provide useful schemes but at the same time also ask for higher commission/brokerage for tapping the clients (investors).

Additionally, given the rise of fake calling and fraud in ways we would not have thought of, people now often tend to ignore or feel a lack of trust when they receive such calls, especially from unknown numbers. This is where Robo-Advisor brings an extra layer of safety and security. While the digital world has certain areas of caution, at the same time it provides a more transparent, efficient, time-saving, and trustworthy way for investors. A key advantage of utilizing Robo-advisors is their comparatively low cost, which can result in an estimated annual savings of approximately 4.4% in fees compared to traditional advisors (Belanche et al., 2023; Uhl & Rohner, 2018). This, therefore, makes them a great choice for people who are either beginners or who would not have much money to invest in. Secondly, these advisors allow the ease of account opening and most importantly, no need for a deep financial background, making them a highly preferred choice (Au et al., 2021; Contractor News, n.d.). Thirdly, these advisors are seen to be effective when it comes automation, monitoring, rebalancing, and reporting, and their user-friendly interface, with engaging visual appeal, positions them as appealing to a non-traditional client, such as Gen Z (Mathew et al.,2024). Additionally, the easy availability of these advisor services on the internet with uninterrupted access convey the accessibility, and flexibility advantages they bring (Figà-Talamanca et al., 2022).

Apart from their use case benefits, Robo-advisors have also been reported to be transparent and diversified which is essential in this technologically driven environment (Cull, 2022; Figà-Talamanca et al., 2022). Further, research by Au et al. (2021), and Belanche et al. (2023) has shown that these advisors can also lead to increase productivity because of their high accessibility and convenience. Additionally, the perceived authenticity of these service advisors is another benefit that allows them to establish trust and encourage user engagement (Yang & Lee, 2024).

However, though Robo advisors offer better and efficient services, they also have multiple weaknesses as pointed out by Baek & Kim (2023), Ku & Wang (2022), and Mathew et al. (2024). First of all, not everyone consumes things in a similar way. One's willingness to adopt a developing technology like GenAI financial advisor, depends on their interests, perceptions, and wants. Second, since these advisors are trained in specific manner, they might not be able to answer and fulfill investor needs. Thirdly, the questions these advisors ask the investors might not be enough to gather the necessary information and may or may not reflect the needs and wants of the investor. The threats these advisors face could be seen as a negative for them when it comes to building trust and confidence of the audience, especially the concerns surrounding the fully digital approach of these service providers. Most importantly implementation of such technological accompanies with data privacy issues, ethical risks, increased vulnerabilities, and compliance and regulatory risks allowing malicious actors to exploit security weaknesses (Chaudhari, 2025). These indicators suggest that a more human-centric approach, or a hybrid system, is valuable to address some of the challenges, improve accessibility, and also build audience trust and confidence (Brunen & Laubach, 2022; Guo, 2020).

1.4 Transformation in investment decisions through usage of Robo advisors

The world is currently undergoing a rapid technological transformation, where data has become the new gold, and ability to harness real-time data insights is more important than ever. In the financial industry, the evolution of Robo-Advisors has advanced investment decisions by offering a mix of proactive, predictive, and personalized responses. Brenner & Meyll (2020) have described Robo-Advisors as the most valuable innovation in the financial service industry. These advisors are built on AI technology that surpasses human capabilities, with faster memory and information-processing power (Phoon & Koh, 2018). By integrating data from multiple touchpoints such as credit histories, transaction patterns, insurance records, and investment behaviors, Robo-Advisors can construct a 360-degree customer profile, enabling highly personalized and precise recommendations tailored to investors' goals and aligned with market trends. Despite their efficiency and accessibility, human involvement remains important for ensuring reliability, trust, and ethical considerations when using these AI-driven systems. However, we must not forget that the benefits of Robo-Advisors, such as innovation, automation, trust, social influence, and ease of use, are the primary factors driving their adoption (Fatima & Chakraborty, 2024).

1.5 Adoption of Robo Advisor

Generative AI and Financial Personalization: The emergence of Generative AI (GenAI) is a significant step in enhancing the capabilities of Robo-Advisor services as well as delivering high customer satisfaction. GenAI

improves user interactions by applying deep natural language processing (NLP) and machine learning techniques. These capabilities allow systems to hold conversations that resemble those of humans and provide customized financial guidance in an engaging manner (Roumeliotis & Tselikas, 2023). Hildebrand & Bergner (2020) have coined a term for Robo-advisors utlising AI-enabled chatbots, referring to them as 'conversational Robo advisors' for their ability to initiate a dialogue-based process similar to a human-to-human interaction, and thus responding to the issue of lack of human intervention by investors. By simulating conversions and training them with real-time financial data, Gen AI allow Robo Advisor services to tailor investment strategies that directly relate with user's financial situation and the dynamic market conditions (Javaid et al., 2023). Thus, GenAI powered Robo-Advisors represent a shift from static automation to dynamic, adaptive and context-aware advisors that have ability to interact precisely and accurately without any human intervention.

Social Influence: Beyond technological innovation, social influence also plays a key role in adoption of Robo-Advisor by investors. Research shows that in a world where trust is hard to build, individuals often look for peer opinions, family recommendations, or community validation before purchasing or adopting new technologies such as Robo Advisors (Bartschat et al., 2022).

Trust: Trust has appeared to be the major factor impacting adoption of Robo-Advisor services by multiple studies. According to Litterscheidt & Streich (2020), transparency regarding internal working of the algorithm and clear communication on how recommendations are generated, are set to generate higher confidence and build user trust and acceptance. From a generation perspective, the tech-savvy generation, millienials and Generation Z are considered to be enjoying greater comfort with emerging technologies and therefore trust services like Robo-Advisors actively for their use (Fatima & Chakraborty, 2024).

Human-Like Interaction: Investors want to interact with AI systems as they would do with the employees in their organization. As a result, they tend to perceive Robo-Advisors as human financial advisors, making the interaction quality as the main area of significance for them. Research by Chaudhari (2025) shares that Robo-Advisors not only enhances the analytical capabilities of financial advisors but also **improves client satisfaction and loyalty** by delivering seamless, personalized experiences. This aligns with the findings from a survey conducted by Sahoo & Urkude (2025) that saw around 20% of Indian respondents believing that AI models may have the potential to offer more organized and unbiased investment viewpoints by reducing biases and emotional emphasis. But still the presence of the human expert in validating and confirming the AI-driven insights is important. Adding to this, the increasing understanding of capabilities and strengths of conversational AI, and the existing research in this domain, conveys the powerful impact of the conversational ability of a Robo-Advisory system in creating engaging and positive user experiences, affecting perceptual and behavioral outcomes for both investors and the organizations. This thus leads towards a satisfying and trustworthy belief around using Robo advisors for investment advice, and other use cases (Hildebrand & Bergner, 2020). This balance sparks the emergence of augmented related advisory model or conversational Robo-advisors as termed by Hildebrand & Bergner (2020) where human intelligence complements algorithmic precision to achieve efficient financial outcomes and thus calls for a digitally skilled workforce capable of navigating evolving AI technologies and regulatory frameworks. It is important for financial institutions to cultivate an innovation and growth driven mindset in their employees through continuous learning, integration and adaptation, that will enable them to stay ahead of technological disruptions, build deeper investor trust, and ensure long-term resilience in the fast changing and transforming environment.

1.6 Robo Advisor in India

India has seen has some landmark innovations in the past few years with its Digital India initiative, signaling the countries' vision to adept modern technology, and use digitalization as an opportunity to expand amongst the rural population, empower women, and position itself as one of the leader's in the space (Vij, 2025). These initiatives such as Unified Payments Interface (UPI), Open Network for Digital Commerce (ONDC) and Public Tech Platform for Frictionless Credits (PTPFC) combined with the work in the field of financial technology (FinTech) lay a strong foundation for the growth of Robo-Advisor services in the developing country (PwC, 2024). As a result, Robo Advisor market in India has been forecasted to be emerging and evolving rapidly with a broad scope in the coming years (Nain et al., 2024; Singh & Karamcheti, 2025). The number of users in the Robo-advisors

sector of the fintech market in India has gone up from 1.57 million individuals in 2020 to 3.16 million individuals in 2025 (Statista, 2024b). Findings by Banerjee (2025) and Fatima & Chakraborty (2024), listed out a few factors that play a crucial role in adoption of Financial Robo Advisors in the Indian market, these include technological readiness, financial literacy, trust, perceived risk, perceived benefits, perceived usefulness, social influence, and investor type. The significance of 'trust' as a factor was also seen in investors in New Delhi by Manrai & Gupta (2023), and was also supported by the survey conducted by Sahoo & Urkude (2025) that revealed that over 40% of the survey respondent's showed confidence in AI's capacity to improve information processing, reducing biases and emotional decision-making, and thus being advantageous for investors. From a usage perspective, report by Statista (2024b) indicated that over 50% of the respondents in India use or are willing to use Robo-Advisor services because of its timesaving, informative, stress-free and transparent nature. Another key trend observed is that of the tech-savvy and curious attitude of some millennials and most of Gen Z in India, similar to their counterparts worldwide. Further, from a digital infrastructure point of view, India has a massive advantage when it comes to the environment and the setup required for the use of Robo-Advisor services, considering its over 800 million internet users, broad network of connectivity, affordable smart phone, and low-cost data plans in the country, even in rural areas (Verma, 2025). Despite these benefits and predicted trends, the FinTech market in the country has seen to be still in a transitional phase possibly due to multiple factors such as lack of awareness, limited financial literacy, cybersecurity vulnerabilities, and digital divide in rural areas, indicating the need to address and bridge these disparities to ensure India continues to grow and maintain its position as a technologically advanced country (Verma, 2025; Vij, 2025). With rising population, government-led digital initiatives, and a tech-driven investor demographic consisting of millennials and youth, India's Robo-Advisory market holds immense potential. The market thus is an open opportunity for Robo-advisor service providers to increase their user base in the country and develop trust and loyalty by focusing on the key factors that prevent investors from making use of such automated services (Fatima & Chakraborty, 2024).

1.7 Literature Review

Existing research on Robo-advisors highlights their significant influence within the financial services industry, outlining both potential benefits and associated challenges. Parasuraman (2000) developed the Technology Readiness Index (TRI) concept, which is a representation of how access and adoption of technology play a key role across industries, such as the financial services industry under which Financial Robo-Advisors operate. The adoption of Robo-Advisors can also be examined with the help of Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB), that provide some key insights allowing the researchers to analyze how perceived ease of use, trust, and risk influence investors' decision-making (Banerjee, 2025; Nain et al.,2024). As described by Aw et al. (2023), a significant amount of academic work on Robo-advisors has largely focused on technological acceptance models, aligning with the TRI concept and the advisor's larger benefit of customer adoption. In addition to this, Yang & Lee (2024) have gone on to analyze Rob-advisors from the Generative AI perspective which have significantly advanced these services. Several research studies demonstrate that Robo-advisors offer an automated, affordable, user-friendly, transparent, and accessible option compared to conventional human advisors, delivering personalized investment recommendations to a wider range of people (Brenner & Meyll, 2020; Guo, 2020; Ku & Wang, 2022). The low fees, no requirement to have high level of financial knowledge, and automated processes attract investors particularly the beginners and younger generations. To add on, the incorporation of advanced algorithms facilitates tailored portfolio management, thereby increasing both the efficiency and effectiveness of investment strategies (Brenner & Meyll, 2020). However, the studies also point out the some challenges and limitations associated with Robo-advisors, such as the lack of in-depth understanding of the investor by the advisors, and the lack of a human touch, which is often considered as a reliable source, and could build client confidence and trust (Baek & Kim, 2023; Ku & Wang, 2022). In fact, study by Singh & Karamcheti (2025) and Nain et al. (2024), have shed light upon risk perception as a much deeper obstacle that prevents or might prevent investors from utilizing automated technology and their urge to experiment with Robo-advisors, indicating both a strong and a negative relationship between the investors and their perception. This highlighted the importance of exploring hybrid models that integrate the work of automated guidance by Robo Advisors with human expertise, aiming to address these limitations and improve

user experience (Brunen & Laubach, 2022; Guo, 2020). This dual approach could allow organizations to utilize technological efficiencies while preserving the personalized guidance provided by human advisors.

Despite the growing adoption of Robo-Advisors globally, academic research exploring their usage, acceptance, and challenges in the Indian context remains limited. Hence, this study aims to analyze existing scholarly work through a bibliometric lens to identify research trends, challenges, publications, and emerging themes in Robo-Advisory adoption and investment decision-making, while providing future recommendations to achieve the path towards Viksit Bharat.

2. Research Objectives

The primary aim of this study is to conduct a review through the bibliometric analysis technique for eexploring the evolving landscape of Robo-Advisors in transforming investment decisions in Viksit Bharat.
This study aims to review below research objectives:

1. Assess the current publication trends in the usage of Robo–Advisors in transforming investment decisions

2. Evaluate the contribution made by authors on how Robo-Advisors are assisting in re-shaping the investment decisions

3. What are the present emerging trends in this area of research topics?

4. What are some future considerations that organizations in India can leverage in their move towards Viksit Bharat?

Research Methodology

The study uses PRISMA format and bibliometric analysis to evaluate 964 publications derived from Scopus database. This also includes citation trends, reviewing the thematic clusters that emerged, co-citation and co-occurrence of present and future trends, and usage of AI in wealth management transformation. Bibliometric analysis provides a systematic overview depicting that through a scientific method such as bibliometric analysis high value business research can be done. It leads to analyzing emerging trends, patterns and collaboration in publications, citation and subject areas. (Donthu et al.,2021).

2.1 Defining the research terms

Through the usage of PRISMA format as per Table 1 was used with an aim to follow a systematic review of search criteria. This helps in review of large data base of 1938 publications from Scopus database. Key terms deployed were, Robo-advisors, wealth management, AI, artificial intelligence, machine learning, ML, automation, Indian Millennials, Generation – Z, Viksit Bharat to get an in-depth view of the research work by different authors.

2.3 Data base

As per Table 1 below a detailed analysis was done at Scopus database search criteria option. Out of a total of 1938 initial publications 964 publications were derived for conducting a bibliometric analysis based on criteria with inclusion and exclusion reviews at each stage.

Table 1: Filter Report. Source: Scopus database

Criteria	Particulars	Exclude		Include
Database	Scopus			
Period	2020 to 30th September, 2025			
Search Terms	Robo-advisors, wealth management. Indian Millennials, Generation Z, Viksit Bharat			1938

	OR AI OR. "artificial intelligence", OR machine learning OR automation			
	AND Robo - Advisors, Wealth Management OR investment decision			
Subject Area	Economics, Econometrics and Finance, Engineering, Mathematics	505		1433
	Business, Management and Accounting, Computer Science			
Document Category	Articles, conference papers, books chapters	41		1392
Stage	Final, open access	230		1162
Affiliation, Sponsor	Not relevant	193		969
Region, Language	English	5		964

2.4 Bibliometric results

For bibliometric analysis using PRISMA protocol, VOS viewer tool was used to analyses 964 documents filtered as per Table 2. The trend as Figure 1 shows increasing importance of Robo – Advisors and its integrated tools such as AI, machine learning usage by authors during the period 2020 to 30th September 2025. The results of current year 2026 were not included so that full trend can be derived. The research shows a rising trend in publications from 2020 to 30th September 2025, which also supports the first research objective on trend of publication usage of Robo–Advisors in transforming investment decisions. The data is further validated as per Figure 2, which depicts documents under review by countries, with India leading the studies with maximum number of citations and total link strength.

Table 2: Scopus Data Base

Year	Scopus Documents published
2025*	260
2024	258
2023	172
2022	106
2021	93
2020	75
	964

* April 2025 to 30th September 2025

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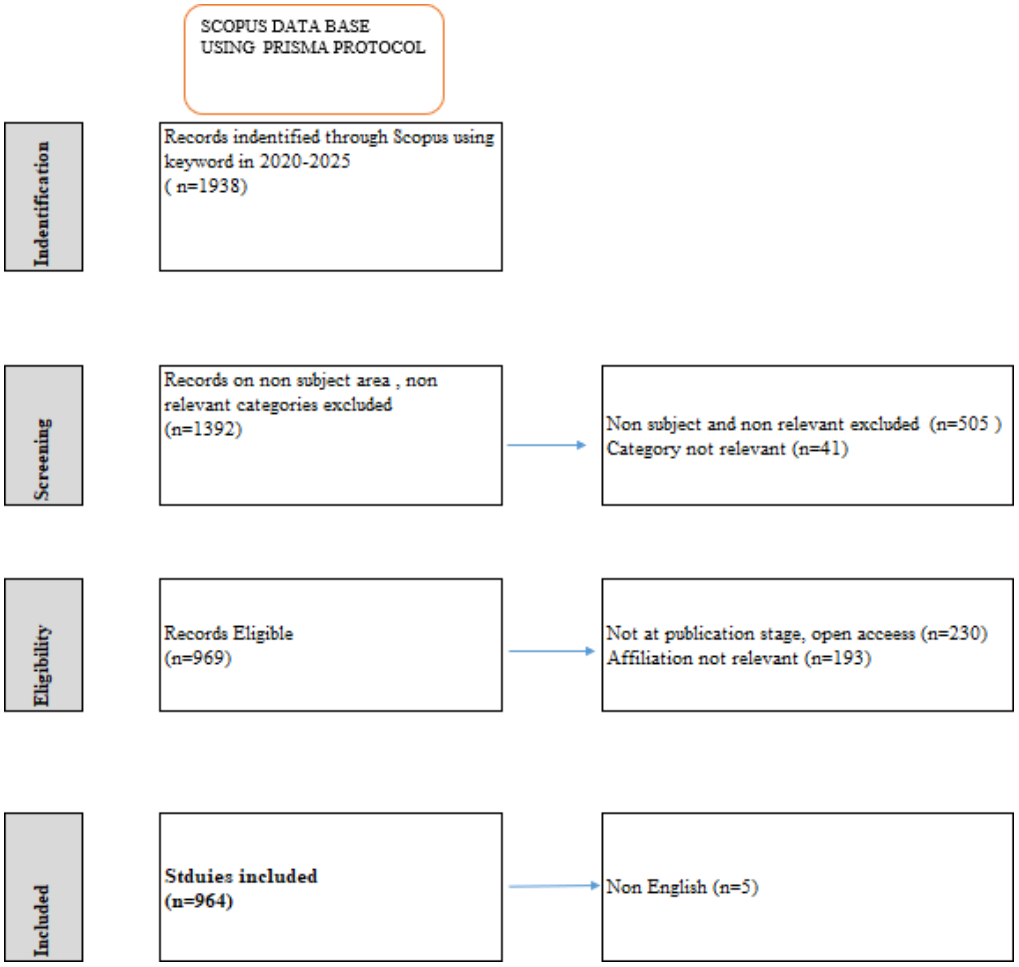
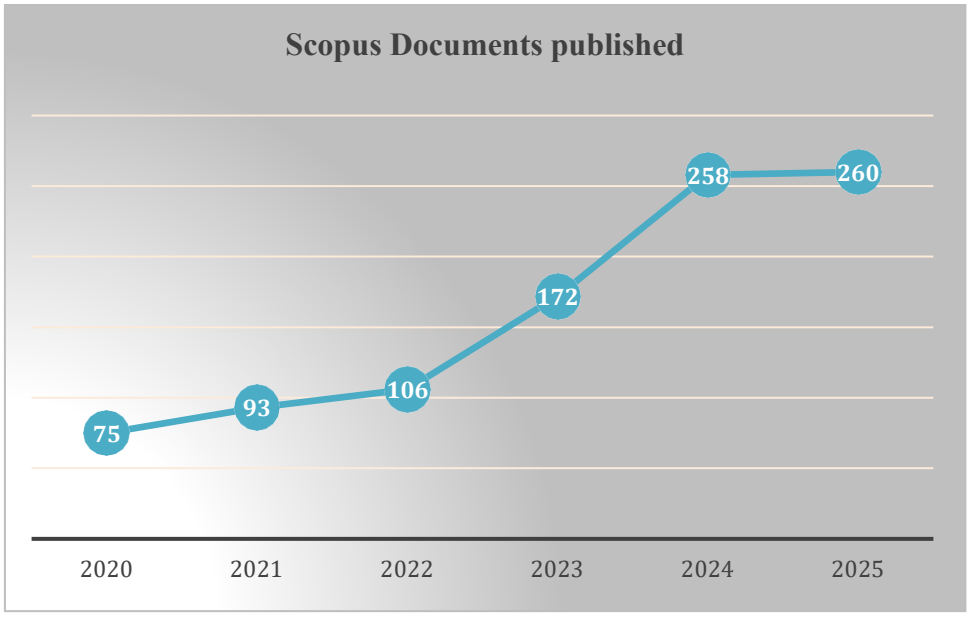


Figure 1: Year-wise trend of publications



Source: Scopus Database

Figure 2: Documents by Country

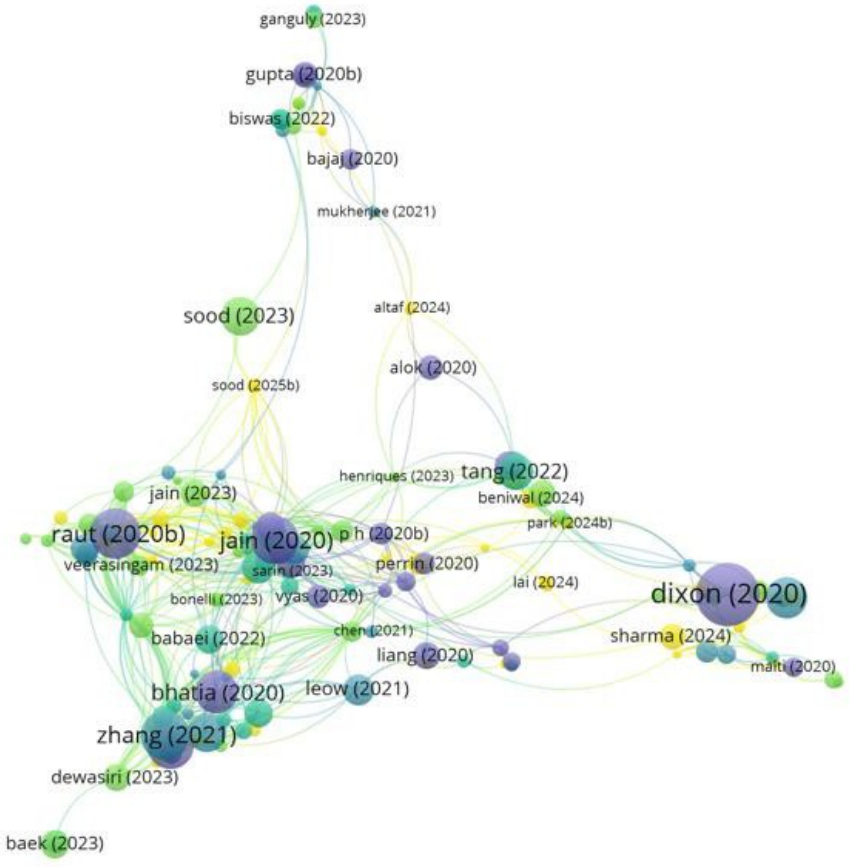
Country	Documents by Country /Territory	Citations	Total link strength
India	503	3341	59
China	127	1193	30
United States	91	1092	26
United Kingdom	34	582	17
Malaysia	31	220	16
Indonesia	24	58	5
Australia	22	155	11
Germany	21	170	4
Canada	19	159	9

Source: Scopus Database

2.5 Citation Analysis

As per co citation analysis performed through VOS viewers for research topic on Robo - Advisors and investment decision we can observe as per Figure 3 shows clusters emerging. The cluster emphasise on the impact of technological innovation for investors decision making.

Figure 3: Bibliographic network



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2.6 Co -occurrence with Authors Keywords

Thematic pattern was observed in Figure 4 using Authors key words criteria. The size of clusters depicts the importance of each cluster. The links with the cluster show importance of each cluster and important relations. Refer to below cross connectivity between investment decisions, artificial intelligence and machine learning and shows a strong bonding. This leads to linkage of Robo – Advisors as per Figure 5 below with these clusters and further confirms on the emerging trends in investment management tools.

Figure 4: Co-occurrence analysis

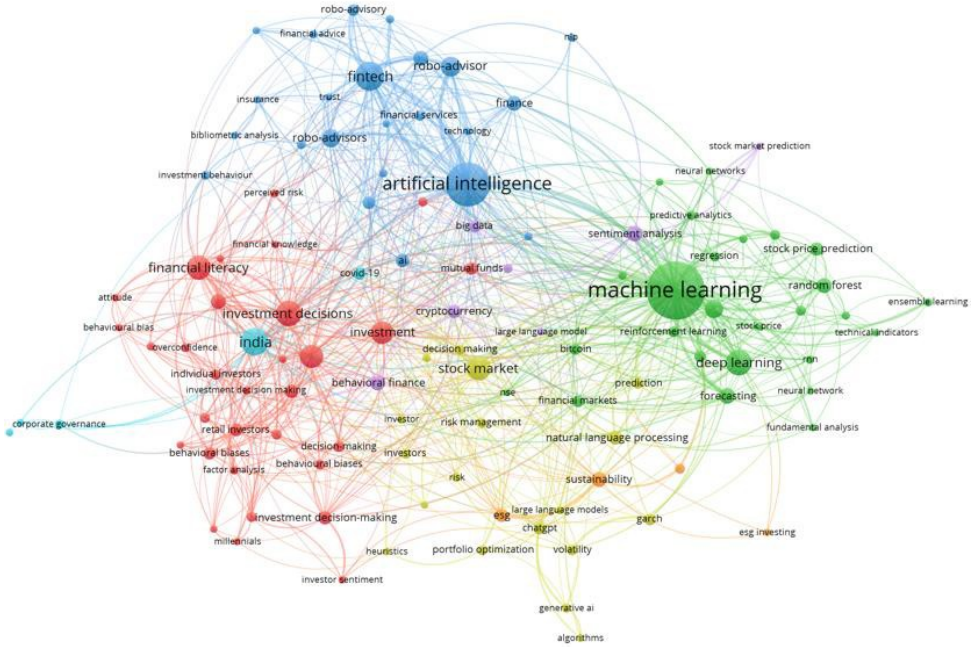

Figure 5: Connectivity with Robo -Advisors

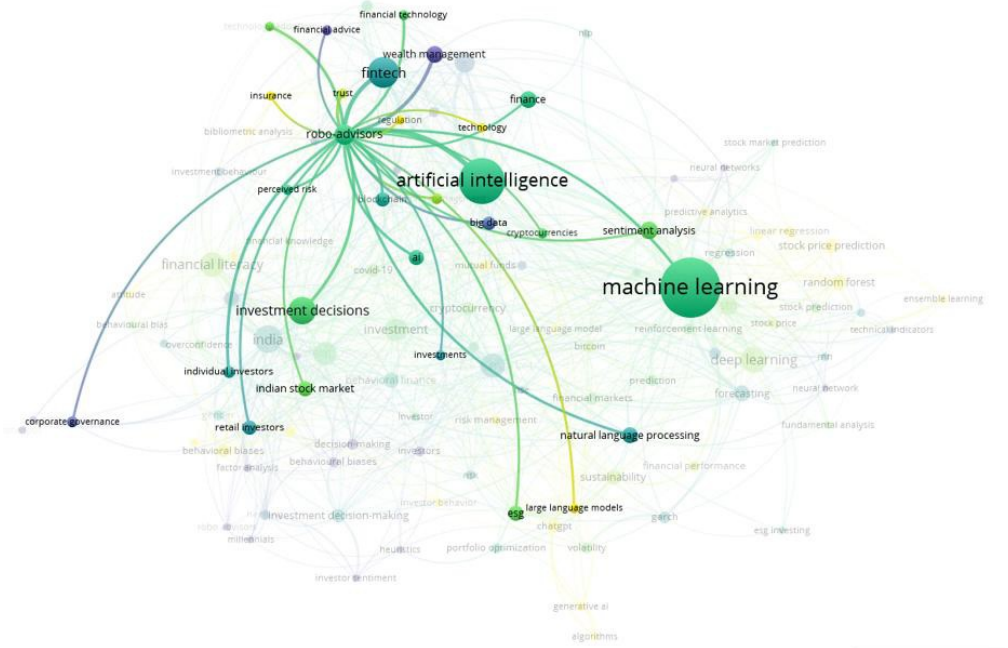

Figure 6: An overview of Thematic clusters

Colour Cluster	Thematic Aim
Blue	Exploring areas of artificial intelligence e, fintech, robo- advisors, trust, financial behaviour.
Red	Aims on investment decision, India, behaviour finance, individual decisions, overconfidence.
Green	Evolve in usage of machine learning, stock market predictions, deep learning, neuron network

3. Trends, Limitation, and Future

3.1 Emerging trends

Our own research made us realize that there is not much existing research on the adoption of Robo-Advisor services in India. This raises the need for more comprehensive research especially incorporating investor perspectives to better understand the factors influencing adoption of these services in the country (Fatima & Chakraborty, 2024). There is a growing demand for further investigation, identification, and transformation in fields such as artificial intelligence (AI) and investor management to strengthen transparency, and trust in order to enhance investor confidence in tax audits and maintain data confidentiality. By working on these areas, Robo-advisors can help minimize data leakages, improve compliance practices, and support social welfare initiatives promoted by the Indian government.

3.2 Limitations

However, several challenges and obstacles exist while fully transitioning to automated Robo-Advisor services. These include concerns about data privacy and confidentiality, resistance to technological change among investors, lack of human intervention and potential of biases within algorithmic models.

Firstly, to expand market reach and attract a broader customer base, Robo-Advisor companies must diversify their marketing channels, targeting specific yet varied demographic groups, and design personalized investment solutions. **Secondly**, to mitigate uncertainty surrounding the use of Robo-Advisors, firms should ensure the robustness of their machine learning algorithms through continuous monitoring, auditing, and testing, while adhering to ethical standards and regulatory frameworks for AI implementation and service deployment (Singh & Karamcheti, 2025). **Thirdly,** given the critical focus and concerns regarding customer data protection and the need to address security and privacy risks, organizations using Robo-advisor services should prioritize using advanced data protection methods and software to guarantee strict compliance with relevant data protection and privacy regulations (Zakaria, 2022). **Fourthly,** to overcome the challenge limited awareness about Robo-Advisor services, there is a need to launch financial literacy focused initiatives such as educational webinars, hybrid workshops, events, tailored sessions, conducted in collaboration with banks and fintech organizations. These sessions would allow those with little or no knowledge about investment or those uncertain with the use of Robo-Advisor to achieve their goals, a chance to understand and get familiar with the functionality, benefits, and long-term growth in Robo-Advisory services. **Fifth,** considering the powerful impact of conversational ability of a Robo-Advisor in creating engaging and positive investor and firm experiences, financial organizations can use this as a tool to build trust and create a digitally appealing experience which particularly catches the eye of the targeted generation of millennials and Gen-Z. Additionally, considering that India has a lot of different languages spoken across states such as Hindi, Punjabi, Marathi, and others, the Robo-advisor service providers can also work on ensuring that they are targeting this linguistic base of the country by developing multi-lingual AI-based advisory bots as a platform that would foster greater inclusivity and adoption.

3.3 Future considerations

With fast pace of technology changes, it's important that Robo advisors' organizations in India can leverage in their move towards Viksit Bharat through collaboration with Government. Robo advisors can engage within the sandbox framework promoted by the Reserve Bank of India (RBI). Regulatory sandboxes have become essential tools for governments across the globe, promoting the controlled testing of innovative technologies under regulatory supervision (Fred, 2025). These frameworks represent an evolution from conventional regulatory practices by permitting organisations to identify potential risks and address challenges related to their business models, and also try out new innovative solution prior to their market launch (Kelly, 2018). Given that these sandboxes function within defined timeframes and are seen to encourage collaboration among startups, regulators, and established companies, they could act as a productive way to nurture a collaborative workspace, build connections, and showcase a dynamic innovative environment of regulatory processes (Attrey, Lesher & Lomax, 2020). Thus, regulatory sandboxes enhance innovation, adaptability, and scalability for businesses in a way that is engaging, productive, dynamic, and ever evolving (Alam and Akhtar, 2024; Olawale et al., 2024). On the broader side, RBI as the central authority on financial regulation in India, remains committed to advancing analytical decision-making, streamlining compliance and regulations, rationalizing reporting processes, and refining regulatory guidelines as India progress with its massive technological potential and the growing startup ecosystem (Rao, 2023).

3.4 Conclusion

With its Viksit Bharat 2047 vision, India presents a massive opportunity for Robo-advisors, given the rapid expansion of fintech, population of the youth, evolving consumer preferences, particularly of millennials and Generation-Z, and the increasing adoption of digital financial solutions in the country.

The study found that biased investor advice by human advisors are gradually been replaced with Robo advisors services which uses complex AI, and machine learning tools without any human bias. Low cost and data driven advice on personal mobiles has been widely accepted by next generation of users. It not only transforms the wealth management process but also creates an atmosphere of trust, lower cost driven and adherence to corporate governance ethics. However limitations exist in building trust on personal data confidentiality, these include concerns about data privacy and confidentiality, resistance to technological change among certain investors, lack of human intervention and potential of biases within algorithmic models.

To tackle these challenges, and ensure smooth transition, the contributions from academic researchers and investors continue to play a crucial role as observed in bibliometrics analysis in guiding Robo advisors towards identifying valuable trends and investor needs. These insights would allow Rob advisors to develop comprehensive policies that address the challenges faced by investors, deliver personalized investment plans while also promoting greater collaboration between services, digitization, and AI technologies. These transformations will also enable Robo advisors to transform investment decisions into Viksit Bharat through its digital mission**.**

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