Artificial Intelligence and Financial Well-being: Opportunities and Threats

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Abstract

Artificial Intelligence (AI) is radically changing the financial services sector, enhancing efficiency, accessibility, and personalisation in ways that contribute to financial well-being. This conceptual paper critically examines the dual narratives of AI in finance. It looks into its potential to improve inclusion, literacy, and decision-making, and the inherent risks it introduces. Based on a comprehensive review of literature, the study highlights how AI-driven finance platforms that range from robo-advisors and predictive analytics to interactive learning tools help in empowering individuals to make better financial judgment, widen their access to sophisticated financial services, and reduce disparities among underserved communities. The paper also looks into the pressing challenges which include data privacy concerns, algorithmic bias, systemic vulnerabilities, job displacement, and the digital divide. By synthesizing opportunities and threats, the paper puts forth a balanced framework for understanding AI's role in financial well-being. The findings call for ethical design of AI platforms, well studied regulatory framework, and inclusive deployment strategies to ensure that AI acts as a catalyst for equitable and sustainable financial ecosystems. Future research directions are identified, focusing on long-term systemic stability, ethical AI principles, and the socio-economic implications of widespread adoption.

Keywords: Artificial Intelligence, FinTech, Financial Well-Being, Financial Inclusion, Ethical AI, Digital Divide

1. Introduction

There is an ongoing transformation in the financial sector, contributed mainly by the rapid developments and integration of Artificial Intelligence (AI). AI, which consists of various

forms from machine learning algorithms to neural networks, is restructuring the way business works, helping in data-driven decisions, and generating new ways in which customer value can be created within the financial sector (Ranković et al., 2023; Bahoo et al., 2024). It is now an ever-present technology in Finance, providing benefits of reduced time consumption, cost-cutting, and faster decision making through automated financial assistance (Ahmed, 2021). The introduction of Artificial Intelligence in the financial sector technology has brought in a tremendous transformation, specifically through financial inclusion, financial literacy and overall well-being. (Akanfe et al., 2025; Aleksandrova et al., 2023; Hallam & Boutalby, 2025; Kaur & Dhiman, 2024; Sharma & Priya, 2025). Financial Well-being (FWB) is a complex, multi-dimensional phenomenon influenced by sociodemographic, economic, and psychological factors (Mathew et al., 2024). Recent studies show that the meaning of FWB is different for different generations. It evolves with age. For the younger individuals it is associated with achieving "financial freedom," while older groups give importance to security and maintaining current lifestyles and AI caters to the needs of both (Riitsalu et al., 2023).

AI-driven platforms leverage both cognitive and non-cognitive components of financial ability to help users navigate these life stages (Kaur & Dhiman, 2024). Studies show that there is a positive correlation between the use of FinTech services such as mobile banking, digital payment apps, and investment related apps, and enhanced financial literacy, increased savings rates, and greater financial inclusion (Sharma & Priya, 2025; Kavitha et al., 2025). There are numerous AI driven platforms that give customised financial services such as financial education, interactive learning platforms, and financial guidance on a real-time basis, all thanks to the constantly and rapidly evolving technology. This empowers people to make informed decisions. (Aleksandrova et al., 2023; Zakaria et al., 2023). Both cognitive and non-cognitive components of financial ability are leveraged by the AI supported platforms, helping the users in having better financial judgements, understanding complex concepts of finance and managing through the challenging economic environments. (Kaur & Dhiman, 2024). The main advantage to be highlighted with the AI driven platforms is its inclusivity. These AI platforms have been crucial in leveling access to financial resources and services to the marginalised and the downtrodden communities, leading to a much greater financial inclusion. (Akanfe et al., 2025; Hallam & Boutalby, 2025; Okeke et al., 2024). These platforms apply machine learning, NLP (Natural Language Processing), and predictive analysis to give users customised financial advices, different automated tools for budgeting and other personal finance management

requirements. Also, sophisticated investment strategies which were previously accessible to only a small privileged section of the society, are now available to all with the arrival of AI in financial services. (Akanfe et al., 2025; Aleksandrova et al., 2023, Ranković et al., 2023). With this improved accessibility to simple and sophisticated financial services, a sense of empowerment is created in its users as they are able to better manage their financial future. (Okeke et al., 2024). Financial disparities are reduced as the financially underserved communities are provided with accessibility to financial services which helps in financial fraud detection, personalised financial advice and improved decision making. (Akanfe et al., 2025). However, this enhanced super power also creates multiple challenges that require careful attention and intervention. The integration of AI into the financial services sector, while resulting in improved efficiency, also introduces new vulnerabilities (Lestari & Andika, 2025). There are a number of concerns that range from ethical issues like data privacy and algorithmic bias to the "black box" problem of AI decision-making and the possibility of displacement of jobs due to automation (Ranković et al., 2023). There also lies the possibility to mislead individuals by bringing in bias in the data presented to them which may affect their decisions. This is a major ethical side to be considered regarding use of AI in Finance (Ranković et al., 2023).

The current study aims to explore how the use of Artificial Intelligence in the finance sector acts as a catalyst towards Financial Well-being. It uses the existing studies to frame a theoretical understanding of how AI influences financial literacy, inclusion and improved decision making which paves the way to a better Financial Well-Being. It also looks into the challenges of using AI in financial services.

2. Methodology

This conceptual paper uses a comprehensive and critical review methodology in order to develop a theoretical understanding of the relationship between Artificial Intelligence and financial well-being, focusing on both opportunities and threats. The study undertakes systematic identification, synthesis and analysis of the scholarly articles on AI in the Finance sector. This helps in creating a theoretical framework without relying on the primary data.

This process involves different stages to ensure both the breadth and depth of the coverage of literature, at the same time keeping high academic standards (Lestari & Andika,

2025). As a first step in the process, relevant keywords are identified and used for a systematic search of the relevant literature. Keywords such as "Artificial Intelligence," "financial well-being," "financial services," "opportunities," "threats," "challenges," "ethics," "financial inclusion," and "financial literacy" are used for the extensive search. This helps in finding the right literature and identifying key constructs.

As the second step, the identified literature is critically analyzed to understand how AI applications which range from machine learning algorithms to neural networks, helps in data-driven decisions and thereby improves financial services. Ascertaining the explicit and implicit connections between AI integration and its effects on various dimensions of financial well-being, such as efficiency, accessibility, security, and personalized financial products is the main focus of the analysis (Ranković et al., 2023; FSB, 2024). Identifying theoretical foundations and conceptual models that underpin these relationships is a major part of this stage.

Third, the methodology involves thoroughly understanding the opportunities presented by AI, such as better operational efficiency, increased financial inclusion, better risk prediction, and personalised advice (Maple et al., 2023; Ranković et al., 2023; FSB, 2024). Also, the approach carefully examines the threats and challenges, including ethical concerns (data privacy, bias), systemic risks (third-party dependencies, market correlations), and socioeconomic impacts (labor market shifts) (Ranković et al., 2023; FSB, 2024). Focussing on both opportunities and threats allows for a balanced perspective on AI's role.

Once the synthesis of the available literature is done, the synthesized information will be used to construct a conceptual framework as the third step in the process. This framework explains the interplay between AI and financial well-being and highlights the ways through which opportunities are realized and threats are manifested. Here, critical gaps in the existing literature are also identified which helps in future research.

3. Discussion

The integration of Artificial Intelligence into the financial sector presents two narratives of the tremendous opportunities for enhancing financial well-being as well as the significant threats that demand careful navigation. The preceding analysis, drawing exclusively from the

provided literature, reveals a complex interplay where AI acts as a potent catalyst, driving both progress and potential peril.

3.1 Opportunities for Financial Well-being

AI's transformative potential in improving financial well-being takes place from its capacity to revolutionize efficiency, accessibility, and personalization in financial services. The major opportunity provided by AI is the **enhanced efficiency and productivity that it offers** through automation which helps in minimizing human error, and identifying complex patterns in financial data (Ahmed, 2021). Automation helps to minimise the time requirement and operational costs while improving the fraud detection accuracy through real-time monitoring of spending patterns (Ahmed, 2021; Judijanto et al., 2025; Ridzuan et al., 2024). This leads to faster processing of financial data, minimised operational costs, and more accurate insights for both financial institutions and consumers (Ahmed, 2021). For example, AI-powered predictive models significantly contribute to the accuracy of credit scoring, which transforms lending practices, ultimately helping in extending credit to underserved populations who might otherwise be overlooked by traditional assessment methods (Maple et al., 2023; Ranković et al., 2023). FinTech companies are utilising the AI to assess the creditworthiness of small borrowers, a segment often ignored by traditional banks due to perceived high risk and evaluation costs (Maple et al., 2023). Also, AI tools can help in creating "IT mindfulness" and financial self-efficacy which make the users feel more in control of their economic conditions (Sharma & Priya, 2025).

Additionally, AI-based robo-advisors are making the **investment strategies available to all by offering personalised advice** with little human intervention, making advanced financial planning accessible to a wider audience (Maple et al., 2023; Ranković et al., 2023). These tools can suggest the investment portfolio which may be optimal, and even efficiently drive ESG investment targets, keeping the financial goals aligned with the broader societal values (Maple et al., 2023). FinTech driven by AI could bridge the gap for the populations not much exposed to banking and financial services by utilizing alternative data for credit scoring, thereby providing access to credit and insurance (Sharma & Priya, 2025; Vuković et al., 2025). Financial literacy is another key area where AI contributes hugely to consumer finance helping the consumers with sustainable financial practices. There are many financial planning applications that are driven by AI which simplify budgeting, saving, and investment

management, providing support to consumers in making better financial decisions and thereby being empowered (Lestari & Andika, 2025). The algorithms of these AI platforms provide customised savings and spending plans for low- and middle-income families which helps them in debt management and future growth planning (Dhanapathy et al., 2025). AI impact is not just within the individual financial management. AI-based systems guide consumers as well as financial institutions towards better and sustainable financial options through the analysis of environmental and social impacts of investments, thereby contributing to Sustainable Development Goals (Lestari & Andika, 2025).

Risk prediction and fraud detection is another important opportunity or blessing provided by AI when used in the finance sector. Traditional approaches are nothing compared to machine learning (ML) and deep learning models in areas of risk prediction, portfolio optimisation, and market sentiment analysis (Lestari & Andika, 2025; Takalkar et al., 2025). AI can make predictions based on the past actions which is very significant for applications like credit risk analysis, rating, and score rates. Studies have shown that various AI methods can attain a higher degree of accuracy in making judgements on credit and estimations, similar to a human brain (Ahmed, 2021). AI can also help in better stock price predictions by interpreting unstructured data from social media and online forums, capturing subtle language cues and context in producing more reliable stock market assessments (Lestari & Andika, 2025).

3.2 Threats to Financial Well-being

Though there are many opportunities provided by AI, it also puts forth many threats which cannot be ignored. These are substantial threats that could damage financial stability and individual well-being if not properly addressed. One of the main concerns is the **ethical implications of AI**, especially on data privacy and algorithmic bias (Ranković et al., 2023). AI systems often use huge amounts of personal data of consumers which are necessary for its processing. But this calls for proper measures for privacy and security, as well as transparency in data usage (Ranković et al., 2023). Processing of high volume of data may increase the chance of unauthorized data access, privacy violations, and highly sophisticated AI-driven frauds (OECD, 2021; Pamarthi, 2024; Takalkar et al., 2025). Another risk is the risk of discriminating practices in critical areas such as credit assessments or investment decisions which could affect unbiased data processing and recommendations (Ranković et al., 2023).

Studies on algorithmic discrimination in lending underscore the risk of exacerbating social inequalities if AI systems replicate existing biases, making it crucial to prioritize bias detection and mitigation in AI development and application (Lestari & Andika, 2025). There are many high-risk AI applications that can lead to social scoring or the exploitation of human vulnerabilities, with many models operating with an opacity that makes decisions difficult to interpret (Ridzuan et al., 2024). This "black box" problem referring to the decision-making processes of AI systems that are opaque adds further to the ethical challenges, especially in the financial decisions involving huge funds where interpretability and accountability are crucial (Lestari & Andika, 2025; Ranković et al., 2023).

Systemic vulnerabilities and financial stability risks are also magnified by the widespread adoption of AI. The dependence on specialized hardware, cloud services, and pre-trained models can cause increased third-party dependencies which pose the threat of creating operational vulnerabilities and systemic risk if there are any disruptions in the key service providers (FSB, 2024). The increased interlink and reliance on a few technology providers can aggravate market volatility and create "concentration risks" (FSB, 2024; FSB, 2025). In addition to this, there could be increased correlations across trading, lending, and pricing from the extensive use of common AI models and data sources. This will potentially lead to cascading failures in tightly coupled financial systems (Lestari & Andika, 2025; FSB, 2024). The rapidly evolving AI innovation and integration, along with limited data on its usage, cause complications in the efforts to detect these vulnerabilities and their potential financial stability implications (FSB, 2024).

The **socioeconomic impacts** of AI are another threat that cannot be overlooked. Displacement of jobs is a major concern of AI adoption as far as socioeconomic aspects are concerned. AI has the potential of bringing in long-term changes in the job market leading to job displacements (Ranković et al., 2023; FSB, 2024). AI automates repetitive cognitive tasks which poses a threat to job security and creates qualitative job insecurity for traditional financial sector employees (Ahmed, 2021; Kanupriya, 2024; WEF, 2025). Earlier waves of technological upgradations primarily automated and displaced routine tasks. But AI poses a threat to the highly skilled workers whose intelligence can be replaced by it (FSB, 2024). Such AI-driven labor market dislocations could increase vulnerabilities in the financial sector through asset-quality and leverage channels, potentially leading to increased delinquencies and

debt-to-income ratios (FSB, 2024). AI also poses the threat of digital divide. A lack of digital literacy may cause the vulnerable populations to be left behind, widening the gap in financial well-being (Pamarthi, 2024). Interestingly, energy consumption is also a challenge posed by AI. There is a significant energy consumption associated with AI, estimated to be around 1% of global energy consumption. If this rises, it may cause broader energy supply issues which could impede the financial sector's ability to use AI if it becomes overly dependent (FSB, 2024).

Finally, AI poses the threat of **infrastructural and regulatory limitations**. This is particularly present in developing economies. There should be regulations to make sure that AI adoption in financial services does not exacerbate inequality in society (Lestari & Andika, 2025). While advanced economies focus on leveraging AI for competitiveness, developing economies often struggle with limitations in terms of digital infrastructure, data security risks, and limited regulatory clarity which restricts the full realisation of AI's benefits (Lestari & Andika, 2025).

4. Conclusion

AI undeniably serves as a powerful catalyst for financial well-being, offering unprecedented opportunities for efficiency, personalisation, and accessibility in financial services. It holds the promise of greater financial inclusion, improved decision-making, and faster and efficient risk management. However, these benefits are inevitably linked to significant threats. These include the perpetuation of biases, risks to data privacy, systemic vulnerabilities, and potential socioeconomic issues. A focussed effort is required in addressing these threats and design AI applications with a strong emphasis on explainability, fairness, and regulatory compliance. A balanced approach that proactively manages these challenges while harnessing AI's potential is essential to ensure its integration into the financial industry leads to a more secure, equitable, and efficient financial ecosystem for all. Future research should focus on developing long-term studies on how AI adoption influences systemic stability, ethical AI design principles, and effective regulatory frameworks to mitigate the inherent risks. Also, each threat can be studied separately in depth, going into the intricate details.H

References

Ahmed, R. (2021). Artificial Intelligence (AI) in financial sectors: Blessings or threats? IOSR Journal of Business and Management (IOSR-JBM), 23(3), 20–25.

Akanfe, O., Bhatt, P., & Lawong, D. A. (2025). Technology advancements shaping the financial inclusion landscape: Present interventions, emergence of artificial intelligence and future directions. Information Systems Frontiers, 27(12), 2189–2212.

Aleksandrova, A., Ninova, V., & Zhelev, Z. (2023). A survey on AI implementation in finance, (cyber) insurance and financial controlling. Risks, 11(5), 91.

Dhanapathy, G., Kumaran, A., Aravinth, S., Kumar, K., & Dravid, V. S. (2025). AI powered financial wellness and sustainable lifestyle. International Journal of Research Publication and Reviews, 6(12), 8374–8378.

Financial Stability Board (FSB). (2024). The financial stability implications of artificial intelligence. https://www.fsb.org/wp-content/uploads/P141124.pdf

Financial Stability Board (FSB). (2025). Monitoring adoption of artificial intelligence and related vulnerabilities in the financial sector. https://www.fsb.org/wp-content/uploads/P101025.pdf

Hallam, Z., & Boutalby, H. (2025). Harnessing artificial intelligence to enhance financial inclusion: Insights from a cross-sectional study. Futurity Economics & Law, 5(1), 140–160.

Judijanto, L., Tjeng, P. S., & Nopianti, R. (2025). Challenges and opportunities of AI implementation in financial sector early warning system. Sinomics Journal, 4(2), 279–288.

Kanupriya. (2024). Opportunities and challenges of AI in financial risk management: A brief labour-centric analysis. Forum for Economic and Financial Studies, 2(2), 1758.

Kaur, M., & Dhiman, B. (2024). A framework for exploring the integration of AI and financial literacy toward a sustainable financial ecosystem. Educational Administration: Theory and Practice, 30(4), 8750–8759.

Kavitha, T. (2025). Connecting digital, AI and fintech: The generative transformation of global finance. Forbes Technology Council. https://www.forbes.com/councils/forbestechcouncil/2025/09/23/connecting-digital-ai-and-fintech-the-generative-transformation-of-global-finance

Lestari, P. A., & Andika, C. (2025). Artificial intelligence and the future of financial governance. Moneta: Journal of Economics and Finance, 3(2), 87–100.

Maple, C., Szpruch, L., Epiphaniou, G., Staykova, K., Singh, S., Penwarden, W., Wen, Y., Wang, Z., Hariharan, J., & Avramovic, P. (2023). The AI revolution: Opportunities and challenges for the finance sector. The Alan Turing Institute.

OECD. (2021). Artificial intelligence, machine learning and big data in finance: Opportunities, challenges, and implications for policy makers. OECD Publishing. https://www.oecd.org/finance/artificial-intelligence-machine-learning-big-data-in-finance.htm

Okeke, N. I., Bakare, O. A., & Achumie, G. O. (2024). Artificial intelligence in SME financial decision-making: Tools for enhancing efficiency and profitability. Open Access Research Journal of Multidisciplinary Studies, 8(1), 150–163.

Pamarthi, K. (2024). Analysis on opportunities and challenges of AI in the banking industry. International Journal of Artificial Intelligence and Data Science (IJADS), 1(2), 10–23.

Ranković, M., Gurgu, E., Martins, O. M. D., & Vukasović, M. (2023). Artificial intelligence and the evolution of finance: Opportunities, challenges and ethical considerations. EdTech Journal, 3(1), 1–12.

Ridzuan, N. N., Masri, M., Anshari, M., Fitriyani, N. L., & Syafrudin, M. (2024). AI in the financial sector: The line between innovation, regulation and ethical responsibility. Information, 15(8), 432.

Sharma, V., & Priya, B. (2025). Bridging the gap: AI-powered FinTech and its impact on financial inclusion and financial well-being. Discover Artificial Intelligence, 5, 290.

Takalkar, P., Sherkhar, S., Shrigod, C., Shaikh, U., & Patil, P. (2025). AI in finance: Challenges, techniques, and opportunities. International Journal of Scientific Research & Engineering Trends, 11(2), 1504–1507.

Vuković, D. B., Dekpo-Adza, S., & Matović, S. (2025). AI integration in financial services: A systematic review of trends and regulatory challenges. Humanities & Social Sciences Communications, 12, 562.

World Economic Forum (WEF). (2025). Artificial intelligence in financial services (White Paper). https://www.weforum.org/publications/artificial-intelligence- in-financial-services

Bahoo, S., Cucculelli, M., Goga, X., & Mondolo, J. (2024). Artificial intelligence in Finance: a comprehensive review through bibliometric and content analysis. SN Business & Economics, 4(23).

Mathew, V., Cherian, N., & Justin, E. (2024). Unraveling financial well-being: A comprehensive systematic literature review. Multidisciplinary Reviews, 2024290.

Riitsalu, L., Sulg, R., Lindal, H., Remmik, M., & Vain, K. (2023). From security to freedom—The meaning of financial well-being changes with age. Journal of Family and Economic Issues.

Zakaria, S., Manaf, S. M. A., Amron, M. T., & Suffian, M. T. M. (2023). Has the world of finance changed? A review of the influence of artificial intelligence on financial management studies. Information Management and Business Review, 15(4), 420–432.