Exploring the Impact of ChatGPT on Financial Decision Making

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ABSTRACT

By facilitating natural language interactions with technology, ChatGPT, a generative artificial intelligence tool, has revolutionized the banking industry. Its use in banking, however, presents a number of moral issues that need careful consideration to guarantee its responsible and moral usage. This policy paper explores the ethical challenges surrounding the use of ChatGPT in the financial industry, such as biases, security flaws, false information, privacy concerns, a lack of accountability and transparency, job displacement, and intricate legal ramifications. Our research emphasizes how crucial it is for financial institutions utilizing ChatGPT to plan ahead in order to handle new issues and reduce any possible harm to people and society. We also suggest guidelines for successfully resolving moral conundrums. This essay emphasizes the necessity of an ethical framework that puts people's welfare and the interests of society at large first in order to guarantee the appropriate use of ChatGPT in finance. Our work not only advances finance research and practice but also suggests important topics for further investigation.

Keywords: *Finance, ChatGPT, Ethical Challenges, Applications, Policies, Artificial Intelligence.*

Introduction

A major advancement in generative artificial intelligence is the creation of huge language models, and OpenAI's flagship innovation product ChatGPT, which uses the Generative Pre-training Transformer architecture, was designed to achieve this goal. It is therefore a deep-learning system that, after training, can produce complex text outputs and learn from enormous volumes of data. The GPT series' development from GPT-1, which had 117 million parameters, to the most recent GPT-4, which has 1.76 trillion parameters, demonstrates how quickly this technology is developing. Innovation in a number of sectors, including banking, has been made possible by natural language processing (NLP) technologies such as ChatGPT (Chatbot-based Generative Pre-trained Transformer). Large volumes of text data are used to pre-train OpenAI's ChatGPT AI model, which produces precise and human-like responses to prompts. There are 141,000 publications (keyword = ChatGPT) indexed on Google Scholar as of April 29, 2024, 516 days after OpenAI launched ChatGPT, demonstrating its broad use and academic interest. These enhancements have enabled ChatGPT not only to produce human-like text responses but also to interpret and interact with image inputs. ChatGPT consistently outperforms most humans on a variety of academic and professional exams, showcasing its versatility across multiple disciplines. Its applications are vast, spanning natural language processing tasks, the development of chatbots, and virtual assistants. Furthermore, ChatGPT excels in generating text in multiple languages and addressing diverse topics, making it a valuable tool in global contexts. One of the sectors poised to benefit significantly from ChatGPT's capabilities is finance. Unlike other financial innovations, such as digital accounting systems and FinTech solutions, the core strength of ChatGPT is in natural language understanding and generation. It can; use this to great effect on tasks that involve more, sophisticated text, based interaction, like Customer support, financial advising, and document analysis. This transforms business operations and can promote innovation across industries.

However, like any emerging technology, ChatGPT is not without flaws. Its rapid evolution and inherent limitations raise the ethical considerations & challenges that must be addressed to ensure its responsible use for the wellbeing of individuals and society. While extensive literature has examined

ChatGPTs challenges in domains such as health, education, and scientific research, there is a noticeable gap in studies focusing specifically on its implications in the finance sector. Most existing research in this area has concentrated on the use of ChatGPT for academic purposes in finance, leaving the challenges associated with real-world financial decision-making largely unexplored and also this oversight is significant, as accurate and well-informed financial decisions are critical due to their far-reaching impact on individual economic stability and societal wellbeing. Bridging this gap in the literature is essential to understanding how ChatGPT can be effectively and responsibly integrated into financial systems.

As ChatGPT increasingly permeates the realm of financial decision-making, it is crucial to classify and examine the possible challenges that could be lead to wrong decisions, resulting in wasted time and financial loss. A comprehensive discussion of these challenges can help raise public awareness about the risks of relying on ChatGPT for financial decisions and provide valuable insights to policymakers and stakeholders. Such insights can guide efforts to mitigate these risks, ensuring the safe and effective use of this technology in monetary contexts. To address the existing gap in the literature, this study explores the ethical challenges associated with using ChatGPT in finance. Through a deductive analysis grounded in existing research and supplemented by a critical evaluation of ChatGPT's role in financial decision-making, the study identifies six key challenges. These findings aim to contribute to a more nuanced understanding of the limitations of ChatGPT in finance and inform strategies for its responsible integration into this critical sector.

First, ChatGPT has a high likelihood of incorporating biases-such as gender, racial, political, and recency biases into its financial outputs. These biases can result in inaccurate and undesirable financial outcomes, undermining trust and fairness. Second, ChatGPT may generate sophisticated but delusive fake information that is difficult to detect within its financial recommendations. This misinformation could lead to severe financial losses, particularly for individuals and organizations that rely on the tool for critical decision-making. Third, the use of ChatGPT raises significant concerns about data security. Financial and personal information utilized by the tool may be vulnerable to hacking or unauthorized access by malicious parties, putting sensitive information at risk. Fourth, transparency and responsibility in ChatGPT's decision-making processes remain uncertain. This lack of clarity can erode confidence in the tool and complicate efforts to address legal issues arising from erroneous financial products. Finally, the automation of financial tasks such as accounting, marketing, and customer support risks large-scale human job displacement. If widespread job loss occurs within the financial sector, the net societal benefits of such automation could become negative. Proactive planning is necessary to reskill and transition displaced individuals into other relevant financial roles to mitigate this challenge. These challenges highlight the need for careful evaluation and forward-looking strategies to ensure the responsible integration of ChatGPT in the financial industry.

The research we do significantly advances the nexus between finance and generative AI. We start by filling a significant vacuum in the literature. Even though the corpus of research on ChatGPT has expanded quickly, there are still few studies that explicitly look at the moral implications of incorporating ChatGPT into the financial industry. Stakeholders like financial institutions, regulators, legislators, and researchers are extremely concerned about this lack of targeted insight. With a paper that examines the exclusive ethical dilemmas of applying ChatGPT's to finance, we not only underpin little explored issues but also bring up a most important conversation regarding the use of generative AI within a critical industry. Through these discoveries, we aim to support information based decision-making and policy making processes in ensuring ChatGPT's integration in finance is safe and in benefitting all those concerned.

Additionally, our work addresses urgent practical implications in addition to academic inquiry. We aim to educate legislators, regulators, and financial institutions about the possible dangers of using ChatGPT in the financial industry. As the financial sector uses AI technologies more and more, it's important to understand and address the ethical implications of this integration. This way, our study sets an essential foundation for informed decision making and provides evidence of the urgent need to establish strong policies and regulations to deal with the use of ChatGPT. Thus, our contributions go beyond abstract theoretical exploration and underscore that the use of ethical generative AI practices in the finance sector is very important. This work will also form the basis for future research on these challenges and their more general practical implications, hence promoting responsible innovation in the field.

The remainder of the article is organized into eight sections. **Section 2** provides a brief overview of the potential applications of ChatGPT in finance. **Section 3** explores the ethical challenges associated with ChatGPT's use in this domain. **Section 4** proposes solutions to address these challenges. **Section**

5 outlines the limitations of our analysis, while **Section 6** discusses the research and practical implications of the study. Finally, the last two sections focus on future directions and conclusions: **Section 7** presents recommendations for further research, and **Section 8** concludes the paper.

Review of Literature

- **Feng et al. (2025)** In this article researcher explores the potential of Natural Language Processing (NLP) technologies like ChatGPT in finance research. It highlights its applications in analyzing financial charts, providing coding support, and theoretical derivation of financial models. The article also discusses the potential of multimodal learning, such as Visual Referring Prompting, to enhance ChatGPT's image analysis capabilities. The study compares ChatGPT-3.5, ChatGPT-4, and Microsoft Bing to provide insights into their applicability in finance research. The goal is to encourage responsible AI adoption and address potential hazards and ethical concerns.

- **Zhang (2024)** In this article explored the role and influence of ChatGPT in financial technology, focusing on its applications in customer service, investment advice, and risk management. The study uses literature analysis, case studies, and data analysis to assess the advancement of ChatGPT in financial services. The findings suggest that ChatGPT has a significant impact on financial technologies, enhancing efficiency, speed, and personalization for customers. However, financial institutions should carefully consider the benefits and drawbacks of using ChatGPT technology to preserve information security and privacy. The article concludes that financial institutions should carefully consider the potential benefits and drawbacks of ChatGPT technology.

- **Hassan et al. (2024)** In this article examined the use of ChatGPT in finance and banking, using an NLP system built by OpenAI. ChatGPT has applications in finance and banking, including fraud detection, risk management, market forecasting, investment management, chatbots for customer service, personal financial management, impact investing, and asset management. We discuss its challenges, limitations, and promising future potential. We urge that authorities establish and improve ChatGPT-related legislation and regulations to prevent unlawful and criminal activities. The report concludes that ChatGPT would improve performance and user experience in many banking and financial industries. ChatGPT has quickly gained attention from research, business, and academia. This study will be beneficial to policymakers, practitioners, and researchers.

- **Gupta & Kumar (2023)** In their studied researcher had focused on as social media becomes more popular for marketing and engagement, there is a growing need for efficient consumer communication techniques. One approach is to use AI-powered chatbots. This article examined how small finance institutions in India employ OpenAI's ChatGPT language model for social media marketing and engagement. We describe how we evaluated ChatGPT's response to customer enquiries and social media interactions. Our study suggests that ChatGPT can improve client engagement and social media visibility for small finance institutions.

- **Sanil (2023)** The present studied had attempted to explore on the social media marketing strategies used by small financing institutions in India compared to larger banks and other businesses. Social media marketing is a crucial tool for businesses to communicate with customers, promote products, and boost brand visibility. However, the use of these methods varies depending on the organization's size and industry. The research used a qualitative approach and reviewed relevant literature on social media marketing strategies for small and major banks. Small financial banks primarily use social media to market their brand and goods, while larger banks prioritize client involvement and relationship-building. The survey concluded that organizations across sectors use social media platforms for various goals, including customer involvement, lead generation, and brand promotion.

- **Rane (2023)** In this study researcher had explored the marketing strategies of small and major banks in India, revealing that small financial institutions use social media for brand promotion, while larger banks focus on customer engagement and relationship-building. The research reveals that these institutions use different social media marketing methods than larger banks and other businesses. However, the integration of ChatGPT and AI in finance and accounting presents ethical challenges such as data privacy, security, and biased decision-making algorithms. The study also highlights the need for a careful balance between human skill and

machine intelligence to ensure the accountability of AI-driven financial decisions. The study underscores the need for overcoming these challenges before these technologies can truly disrupt the financial environment.

Research Methodology

Our methodology mainly consists of a thorough review of the contents of existing literature to identify potential ethical issues related to ChatGPT, and our study closely resembles the format of a theoretical policy paper. The study focuses on identifying potential ethical challenges associated with ChatGPT, a new and evolving tool in finance. It avoids quantitative analysis due to the lack of available data and avoids relying on prompts submitted to ChatGPT. The study also avoids quantitative analysis due to limitations in generalizability and standardized methods for evaluating outputs, which can lead to conflicting interpretations. Additionally, ChatGPT's is answer to the same prompt can vary over time, raising concerns about replicability. To address these limitations, a deductive analysis approach is adopted. The study primarily draws on peer-reviewed studies, but incorporating working papers when relevant. Examples from the literature are used to support arguments, but some challenges have not been tested with empirical data, making it difficult to cite specific examples. Identifying these challenges is crucial to raise public awareness and prompt authorities to address them in the future. The study's methodology is designed to avoid quantitative analysis and ensure a comprehensive analysis.

Functions of ChatGPT in Finance

Fig.1: Benefits of using ChatGPT in Finance

It is useful to provide a brief overview of ChatGPT's usefulness in the finance industry before delving into the ethical concerns surrounding it. ChatGPT can carry out a variety of tasks thanks to its sophisticated language processing capabilities. Among the most important uses of ChatGPT in the finance and business domains are:

- **Analyzing the Dynamics of the Financial Market:** ChatGPT classifies financial news and analyzes text and social media for insights into the market.

- **Offering Customer Service:** ChatGPT can answer client queries regarding financial products and services.

- **Performing Named Entity Recognition:** ChatGPT is a source of understanding the large amounts of financial information from unstructured texts.

Generating Financial Summaries, Reports, and Forecasts

- **Providing Personalized Investment Recommendations:** ChatGPT provides individualized investment suggestions based on individuals' financial objectives and risk choices.

- **Fraud Detection and Prevention:** ChatGPT has the potential to be trained for fraud detection and prevention.

The Ethical Issues of Implementing ChatGPT in Finance

As ChatGPT becomes more integrated into the financial sector, it introduces a range of ethical challenges that must be carefully considered. These challenges stem from the tool's inherent limitations, biases, and potential for misuse, all of which could have significant consequences for individuals and organizations relying on its outputs. The following section examines some of the key ethical concerns related to the use of ChatGPT in finance:

Fig 2: Ethical Challenges of using ChatGPT in Finance

- **Biased Outcome**

ChatGPT, a popular online platform, uses vast datasets to generate responses, which may contain biases related to gender, race, religion, politics, and region. These biases can lead to undesirable outcomes & potentially maintain existing biases on a larger scale. Preliminary evidence suggests that ChatGPT may exhibit biases in financial contexts, such as favoring financial organizations aligned with certain political ideologies or businesses with strong environmental profiles. Additionally, as ChatGPT draws from media sources, it may disproportionately highlight firms with extensive media coverage, such as those that invest heavily in advertising. This could lead to recommending firms that are not necessarily financially viable options, especially for smaller firms. Due to limited data available online, ChatGPT might struggle to accurately assess their financial standing, leading to incorrect evaluations and suggesting inefficient or suboptimal investment opportunities. These concerns highlight the need for attentive inquiry and measures to moderate biases in ChatGPT's financial outputs to ensure more accurate, fair, and effective decision-making.

- **Fake Information and Misinformation**

Misinformation and fake financial news are global problems. ChatGPT, which was created to weed out false information, has trouble guaranteeing the reliability of the data. It might include false information in financial forecasts or market sentiment analysis, which would result in inaccurate results. "There are risks associated with ChatGPT's ability to generate consumer recommendations, as it may provide false information." Investors and consumers may be exposed to financial risks as a result. Additionally, ChatGPT's recommendations may reflect biases, alienating other interest groups. It can also make factual mistakes when handling numerical data, especially in financial documents. Relying on ChatGPT for financial summaries or statements can be risky, potentially leading to financial losses.

- **Privacy Concerns**

ChatGPT, an AI-driven tool, is heavily reliant on financial data, which raises privacy concerns. Its extensive repository of transactional information can be compromised by malicious actors, leading to severe financial harm. These actors can exploit vulnerabilities to generate impersonate firms, phishing attacks, and produce fraudulent emails and ChatGPT is also makes an attractive target for cybercriminals, who can quickly generate and modify malicious code to breach financial institutions' security systems. The widespread availability of ChatGPT exacerbates these risks, providing novice cybercriminals with an accessible resource for generating malicious code. To maintain trust, transparency in communication of privacy and security protocols is crucial and also maintains strong protective and modification measures must be established and widely disseminated to address potential data breaches. Proactively handling privacy concerns and promptly addressing breaches is critical to sustaining societal trust in AI-driven tools like ChatGPT in finance.

- **Transparency and Accountability**

ChatGPT, an artificial intelligence (AI) tool used in finance, is a sophisticated system that makes decisions using sophisticated algorithms, especially Natural Language Processing (NLP). However, the opacity of these algorithms can make it difficult to understand how the tool arrives at its conclusions. ChatGPT operates on imperfect and noisy data, and errors in its development can have significant consequences in the financial sector. Even after training, ChatGPT may mislabel or else miscategorize new data, leading to financial losses for individuals and organizations. This underscores the need for clear explanations for its outputs, particularly in cases of adverse outcomes. Incorporating accountability and transparency in ChatGPT's design and decision-making processes is crucial for fostering trust and promoting a more transparent and responsible tool that aligns with the high-stakes demands of the financial sector.

- **Human Replacement**

ChatGPT has the potential to automate various finance tasks, such as accounting, tax filing, and marketing, but it raises ethical concerns about workforce displacement. While technology can improve efficiency and productivity, it cannot replicate human judgment, intuition, and ethical reasoning, which are crucial for sound decision-making. The adoption of ChatGPT in finance requires careful consideration of its economic benefits and broader societal impact. It is essential to address how automation might affect employment opportunities and the preservation of ethical values. Human involvement is crucial for navigating complex financial decisions, and stakeholders must balance the potential of ChatGPT with the need to safeguard human employment and ethical integrity. This balance ensures that technological progress does not compromise the workforce or responsible financial practices.

- **Legal Issues**

ChatGPT's global training and learning process introduces complexities in ensuring compliance with domestic financial regulations and laws. The financial outputs generated by ChatGPT, such as investment recommendations and organizational decisions, may inadvertently infringe upon local legal frameworks. Content generated by ChatGPT for business purposes, such as financial reports, marketing materials, and investment analyses, can exhibit similarities across firms, leading to accusations of piracy or copyright infringement. Resolving these cases becomes challenging due to the lack of comprehensive legal systems to address these novel issues. The heterogeneity of financial regulations across countries further complicates matters, making cross-border legal disputes difficult to resolve due to varying and often conflicting legal standards. To address these concerns, clear legal guidelines and international cooperation are urgently needed to regulate the use of generative AI in finance.

Possible Solutions for these Challenges

There are multiple approaches to address and mitigate the ethical challenges posed by ChatGPT in the finance sector. In this context, we outline five broad mechanisms that could play a pivotal role in overcoming these challenges.

- **Mitigating Biased Outcomes in ChatGPT Training**

To minimize bias in ChatGPT's future training, developers at OpenAI should collaborate with representatives from diverse sectors to design algorithms that minimize bias. Government regulators and consumer protection agencies can oversee these interactions, ensuring meaningful and productive results. This participatory approach emphasizes inclusivity and transparency, enabling the development of algorithms that embrace diverse financial perspectives and significantly reduce biases in ChatGPT's

outcomes. This approach, as highlighted in a study on ChatGPT and ethical practices in emerging biotechnology, enables the creation of algorithms that yield meaningful results.

- **ChatGPT Solution to Fake and Misleading Information**

    We consider a variety of solutions to the problem of fake and misleading information. During the algorithm development stage, engineers may create a reliable framework for ChatGPT to extract information from trustworthy sources. Human supervision, such as random audits of generated outcomes, can detect fraudulent or disinformation in ChatGPT results. Algorithms can be adjusted to prevent future usage of similar information sources in financial recommendations and assessments. Human supervision can generate new employment possibilities and minimise job losses caused by ChatGPT automation in the finance sector.

- **Protecting Financial Data from ChatGPT Attacks**

    To protect sensitive financial data from hostile actors using ChatGPT, organizations should have a defined policy in place, with each sector developing and executing its own regulations. Proper communication of policies is crucial to ensure public understanding of ChatGPT's access to financial transactional data. Public regulators can collaborate with industry to develop and execute standard regulations, accelerating progress and reducing financial losses. Regularly upgrading data security measures is essential to prevent cybercrime and hacking, using multiple protection barriers to make it difficult for hackers to infiltrate, even with ChatGPT's support.

- **Global Collaboration for ChatGPT in Finance**

    The use of ChatGPT in finance presents legal challenges that require a global collaborative approach. Countries like the US, UK, Japan, China, and the EU, along with international organizations like UNESCO and the World Bank's ICSID, should work together to create a comprehensive legal framework. One solution is the establishment of a 'Global AI Regulator and Court of Arbitration', which would set global standards for the application of ChatGPT in finance. This would ensure ethical guidelines, privacy and security standards, and combat fake or inaccurate information. This would standardize the use of AI in finance and promote ethical AI usage globally, fostering trust and consistency in AI-driven financial practices.

- **Hybrid Approach to AI-Based Financial Decisions**

    To ensure accurate financial decisions, a hybrid approach combining AI-based decision-making with the expertise of finance professionals is recommended. This allows for a comparison of AI and human perspectives, promoting mutual learning and improvement. Human involvement in overseeing ChatGPT's recommendations helps identify and correct flaws, minimizes risks, and addresses legal complexities. This approach also creates new job opportunities in AI-driven financial decisions. As ChatGPT evolves, ethical challenges in the finance sector will emerge, necessitating regular updates and adaptations to maintain financial wellbeing. Proactive policy adjustments are also necessary to maintain trust in AI applications.

Limitations of the Analysis

- Analysis heavily relies on existing studies, often drawing conclusions from limited observations.
- Lack of extensive data makes in-depth, systematic analysis difficult.
- Solutions proposed for mitigating ethical challenges of ChatGPT in finance remain empirically untested.
- Stakeholders like financial institutions, regulators, and AI developers should implement these solutions cautiously, considering their unique context and challenges.
- Future research and testing are essential to assess the practicality and success of these proposed solutions.

Ethical Implications of ChatGPT's Integration into Finance

- The study explores the ethical implications of ChatGPT's integration into finance, a gap in existing literature.
- Ethical considerations specific to ChatGPT's use in finance have received less attention.
- The study aims to catalyze conversations about accountable deployment of ChatGPT and generative AI in the monetary region.

- It proposes avenues for future research to deepen understanding of these issues.

- Practical recommendations are offered for regulators, financial institutions, and policymakers to understand possible risks related with ChatGPT's use in finance.

- The study emphasizes the importance of transparency, accountability, and data privacy in AI use in finance.

- Clear guidelines and protocols are necessary to ensure the ethical, accountable, and transparent use of AI tools in finance.

Future Research on ChatGPT's Ethical Implications in Finance

- Identify and mitigate biases in ChatGPT's financial outcomes, especially those related to socio-religious factors.

- Examine equity and inequality issues, assessing their impact on different socio-economic groups.

- Quantify biases to evaluate how AI systems may favor certain groups.

- Develop smaller, focused large language models (LLMs) for transparent and ethical decision-making processes.

- Develop stronger security and privacy protocols for ChatGPT, especially in finance.

- Investigate human-AI collaboration in finance to balance automated decision-making and human expertise.

- Address legal and regulatory challenges associated with deploying AI tools in diverse financial jurisdictions.

- Shift towards large-scale data-driven studies of ChatGPT's use in finance for a clearer understanding of challenges and biases.

Conclusion

ChatGPT has revolutionized financial decision-making, but it also presents ethical challenges such as biases in outcomes, the risk of misinformation, security and privacy breaches, lack of transparency and accountability, human displacement due to automation, and legal complexities. To address these issues, companies, financial institutions, and agencies using ChatGPT should engage in inclusive dialogues with stakeholders, including public consultations, subject matter experts, regulators, and technology developers. A participatory approach ensures diverse perspectives are integrated into AI application development and governance. ChatGPT offers exciting new options for finance researchers. However, like with any modern technology, there are obstacles and constraints to consider, such as the dependability and accuracy of the data. Researchers must understand these limitations and utilize ChatGPT properly. Despite limitations, ChatGPT has promise to enhance finance research. ChatGPT's adaptability makes it an invaluable tool for financial study, including coding. By checking and cross-referencing material provided by ChatGPT and following ethical rules, researchers may use AI effectively while maintaining academic standards. The inside Financial charts and visual data can be studied more accurately and effectively by utilizing advanced technologies such as Visual Referring Prompting (VRP), which enhances data interpretation. Finance scholars can use ChatGPT to better understand finance, investigate its societal effects, and influence the direction of finance academia. Deeper insights, fresh approaches, and wider viewpoints in financial research will be made possible by the combination of AI technology, distinctive GPT models, and expanded web search capabilities.

To mitigate misinformation and hallucination risks, a robust algorithmic framework focused on source credibility and data verification is proposed. Proactive measures should be taken at the organizational level to control the accessibility and exposure of sensitive financial data to minimize cybercrime vulnerabilities. Establishing and frequently updating stringent security protocols is crucial for countering hacking attempts and unauthorized data exploitation. Global harmonized standards and legal frameworks are necessary to address the international legal implications of AI-driven financial decisions. International cooperation among entities like the OECD, UNESCO, and other regulatory bodies will be crucial in setting these standards. A hybrid decision-making approach that combines the analytical capabilities of ChatGPT with the experiential and intuitive judgment of financial professionals is strongly recommended.

Implementing these strategies can maximize societal benefits, build greater public trust, and establish ethical guardrails for its use in finance. As the conversation around AI ethics and innovation intensifies, it is essential for the research community to remain actively engaged. This work provides a foundational perspective on the ethical dimensions of integrating ChatGPT into financial practices and sets the stage for future research.

References

1. Feng,Z., Hu,G., Li,B., & Wang,J. (2025). Unleashing the power of ChatGPT in finance research: opportunities and challenges*, https://doi.org/10.1186/s40854-025-00770-3, 1-26.*

2. Hangrui,Z. (2024). The Impact of ChatGPT on Finance Technology. *DOI: 10.54254/2754-1169/80/20241887, 250-257.*

3. Khalid,H., Shahnaz,P., & Jahangir, A.S. (2024). ChatGPT Practices: Finance and Banking Domain. *Journal of Business, Communication & Technology*, *3*(2), 29-40.

4. Nitin,L.R. (2023). Role and challenges of ChatGPT and similar generative artificial intelligence in finance and accounting. *http://dx.doi.org/10.2139/ssrn.4603206*.

5. Sanil,N. R. (2023). Comparison of Social Media Marketing Strategies used by Small Finance Banks in India with those Used by Larger Banks and Other Industries. *International Journal of Research Publication and Reviews, 4*(3), 830-843.

6. Sanil,N.R. (2023). Scope of ChatGPT for Small Finance Banks in India for their social media marketing and social engagements. *International Journal of Creative Research Thoughts (IJCRT), 11*(2), 409-412.

7. OpenAI, "Introducing ChatGPT." [Online]. Available: https://openai.com/blog/chatgpt. (Accessed 7 September 2023).

8. https://fastercapital.com/content/Chatgpt-in-finance-streamlining-reports-and analyses.html.

9. https://fastercapital.com/startup-topic/Challenges-and-Ethical-Considerations-with-ChatGPT.html.

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