



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

# IJRSET

International Journal of Innovative Research in  
**SCIENCE | ENGINEERING | TECHNOLOGY**



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 13, Issue 5, May 2024

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 8.423

 9940 572 462

 6381 907 438

 [ijirset@gmail.com](mailto:ijirset@gmail.com)

 [www.ijirset.com](http://www.ijirset.com)

# Role of AI in Finance: An Empirical Study on the User's Perception

Abhiram Santhosh, Dr. Shalini. R.

MBA Student, CMS Business School, Jain (Deemed-To-Be) University, Bangalore, India

Associate Professor, CMS Business School, Jain (Deemed-To-Be) University, Bangalore, India

**ABSTRACT:** Smart machines, called AI, are changing how banks and finance companies work. They can do things faster and better by quickly analyzing lots of data. AI helps in many ways, like giving personalized advice to customers through chat bots and robo advisors. It's also used for fast stock trading, managing risks, and stopping fraud. AI can even talk to customers all day, making them happy with the service. But there are concerns about privacy and job losses along with all the merits it's been providing, which should be taken into consideration. Banks need to train employees, protect information, and use AI responsibly. Overall, using AI in finance is a giant leap forward, opening doors to new and exciting possibilities. By using these smart tools, financial businesses can work better, serve customers like never before, and stay ahead of the game in a world that's increasingly digital and data-driven.

**KEYWORDS:** Artificial intelligence, banks, users' perception, chatbots, robo advisors

## I. INTRODUCTION

In recent years, the integration of Artificial Intelligence (AI) into the financial sector has garnered significant attention and interest. This innovative technology has revolutionized traditional financial processes, offering new avenues for efficiency, accuracy, and personalized service. From chat bots providing customer support to complex algorithms driving high-speed trading, AI's presence in finance has become pervasive, reshaping the industry landscape. The aim of this empirical study is to delve into the user's perception of AI in finance, examining how individuals perceive and interact with AI-driven financial services and products. By understanding user attitudes, preferences, and concerns surrounding AI in finance, this research seeks to shed light on the evolving relationship between technology and financial services.

## II. LITERATURE REVIEW

1. The Sina Ahmadi., Year: 2024. This study evaluates the substantial influence of AI-technologies in the finance industry, with advancement expected to accelerate in the next few years.
2. M Hidayat, SY Defitri, H Hilman. Year: 2024, this study examines the impact of artificial intelligence (AI) on financial control, exploring the implementation of AI technology in financial selection-making strategies, predictive analysis and hazard manipulation.
3. S Brightwood, H Jame, Year: 2024, this research article delves into the transformative impact of Artificial Intelligence (AI) on automating accounting processes and streamlining financial reporting.
4. S Brightwood, H Jame, Year: 2024, this research article delves into the transformative impact of Artificial Intelligence (AI) on automating accounting processes and streamlining financial reporting.
5. TB Adeyeri., Year: 2024, this research article delves into the transformative impact of Artificial Intelligence (AI) on automating accounting processes and streamlining financial reporting.

## III. RESEARCH METHODOLOGY

### A. Research Design:

This research begins by defining clear objectives, including conducting a thorough literature review to understand the current landscape of AI applications in finance, encompassing use cases, challenges, and opportunities. Additionally, the study intends to identify key stakeholders involved in AI implementation within the financial



industry and gather insights through interviews or surveys. Subsequently, hypotheses will be formulated to guide the investigation towards potential solutions. Statistical tools such as the chi-square test will be employed to analyze data and draw conclusions. The implications of AI adoption in finance, such as changes in job roles, workforce upskilling needs, and potential disruptions, will be summarized. Furthermore, recommendations will be provided for financial institutions on effectively leveraging AI technologies, addressing challenges, and maximizing benefits. Finally, the research will conclude by highlighting key findings, implications, and future directions for integrating AI into the financial industry

B. *Methods Of Data Collection:*

- **Primary Data:** Primary source of data was collected by questionnaire. These questionnaires were made in a Google form and distributed among my peers, family and friends.

SAMPLE SIZE :- 101

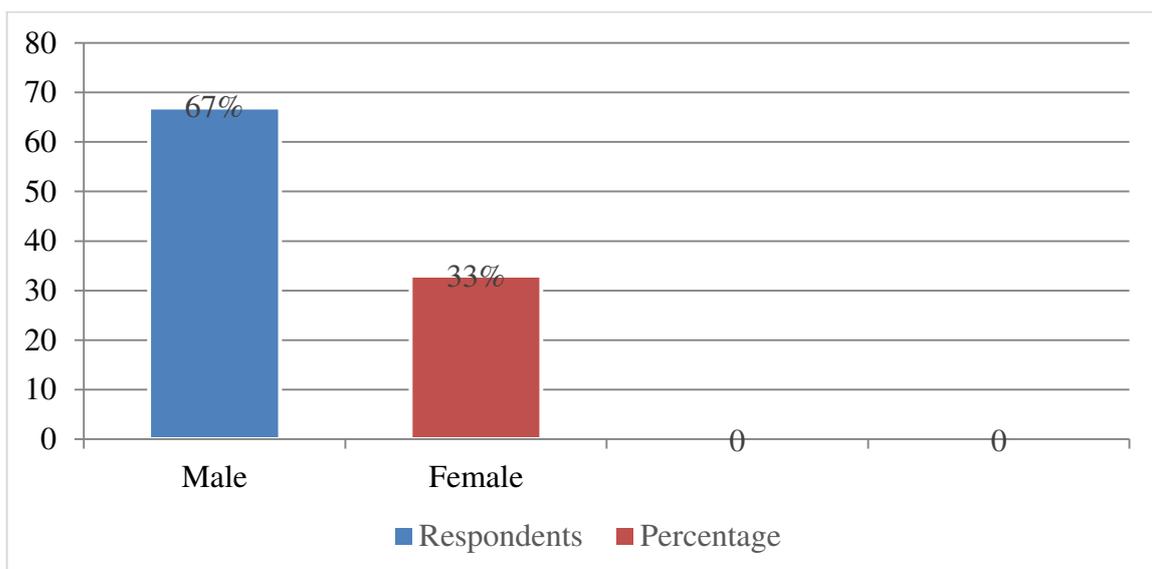
- **Secondary Data:** Secondary source of data was collected from;

- Books
- Journals
- Magazines
- Web’s logistics

C, *Data Interpretation*

1. Gender

Category	Respondents	Percentage
Male	67	67%
Female	33	33%



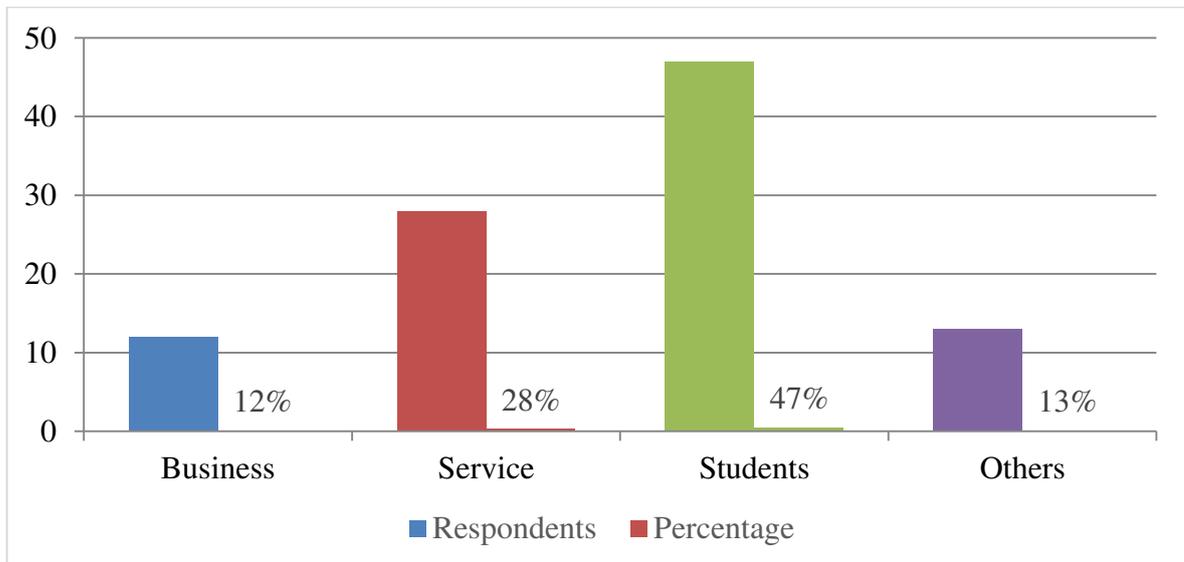
**Interpretation:** You will find a table at the very top of the page that organizes the information according to gender for your own personal convenience. In all, there are 67 males and 33 women.



2. Occupation

- a) Business
- b) Services
- c) Students
- d) Others

Category	Respondents	Percentage
Business	12	12%
Service	28	28%
Students	47	47%
Others	13	13%



**Interpretation:** The following table provides a condensed explanation of the term "Occupation." The one immediately behind it is the next in line after this one. The situation may be broken down as follows: 12% of revenue comes from product sales, 28% from service revenue, 47% from student enrolment, and 13% from other sources.



IV. HYPOTHESIS TESTING

A. Hypothesis 1:

Null Hypothesis (H0):

There is no significant relationship between AI ANF FINANCE.

Alternative Hypothesis (H1):

There is a significant relationship between AI ANF FINANCE

Planning process.  $r=n-1=4-1=3$   $\alpha=0.05$

O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
35	25.5	9.5	90.25	3.539216
30	25.5	4.5	20.25	0.794118
25	25.5	-0.5	0.25	0.009804
10	25.5	-15.5	240.25	9.421569
TOTAL				13.76471

Based on the chi-square table , by using the r and  $\alpha$  values the chi-square value is 7.815 Since the calculated value is 13.76471 and it exceeds the table value and also it does not fall in the critical region H0 is rejected. H1 is accepted.

B. Hypothesis 2:

Null Hypothesis (H0):

AI IN FINANCE does not affect our daily life

Alternative Hypothesis (H1):

AI IN FINANCE effect our daily life

Planning process.  $r=n-1=2-1=1$   $\alpha=0.05$

O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
75	50	25	625	12.5
25	50	-25	625	12.5
0	0	0	0	0
0	0	0	0	0
TOTAL				25

Based on the chi-square table , by using the r and  $\alpha$  values the chi-square value is 3.814 Since the calculated value is 25 and it exceeds the table value and also it does not fall in the critical region H0 is rejected. H1 is accepted.



**C. Hypothesis 3**

Null Hypothesis (H0):

AI in finance is not sustainable and effective

Alternative Hypothesis (H1):

AI in finance is sustainable nor effective

planning process.  $r=n-1=4-1=3$   $\alpha=0.05$

O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
60	25.5	34.5	1190.25	46.67647
10	25.5	-15.5	240.25	9.421569
20	25.5	-5.5	30.25	1.186275
10	25.5	-15.5	240.25	9.421569
TOTAL				66.70588

Based on the chi-square table , by using the r and  $\alpha$  values the chi-square value is 7.815 Since the calculated value is 66.71 and it exceeds the table value and also it does not fall in the critical region H0 is rejected. H1 is accepted.

**V. FINDING AND RECOMMENDATIONS**

**A. Findings:**

- The findings of the study show that out of the total number of respondents, implementation of AI in transforming finance is 35% very effective, 30% moderately effective, 25% ineffective and 10% of the respondents are not sure about it.
- From the analysis it has been found that 75% of the respondents believe that AI has an impact in transforming finance and the remaining respondents do not believe in this.
- The findings of the study show that out of the total number of respondents, significance of AI in transforming life Is, 40% Significant, 25% Limited, 20% none, 15% Not applicable.
- From the analysis out of the total number of respondents, overall sentiment towards AI in finance is, Positive for 14%, Negative for 58%, Neutral for 16%, not applicable for 12%.
- From the study, change in efficiency brought about by AI in finance 20 percent of the respondents believe that it has Increased 50 percent of the respondents believe that it has decreased and 30 percent believe that it has No significant change.
- In this research out of the total number of respondents, sustainability of AI in finance in the long term is, 60% highly sustainable, 10% of moderately sustainable and 20% not sustainable 10% of Unsure.

**B. Recommendations**

1. Prioritize Cyber security and Data Privacy.
2. Invest in AI Talent and Expertise.
3. Enhance Regulatory Agility.
4. Promote Interdisciplinary Collaboration.
5. Facilitate Financial Inclusion.

## VI. CONCLUSION

In conclusion, the rapid advancement of Artificial Intelligence (AI) is transforming the financial sector in unprecedented ways. The emergence of AI technologies is revolutionizing the traditional financial services industry by enabling more efficient and personalized customer experiences, streamlining operations, detecting fraud, and enhancing risk management. The scope of AI in finance is vast, encompassing various applications such as predictive analytics, algorithmic trading, chat bots for customer service, and credit scoring. The trends in AI are constantly evolving, with machine learning algorithms becoming more sophisticated and capable of handling vast amounts of data in real-time. The incorporation of AI-based solutions is essential for financial institutions to stay competitive in the digital age.

## REFERENCES

- [1] Ahmadi, S. (2024). A Comprehensive Study on Integration of Big Data and AI in Financial Industry and its Effect on Present and Future Opportunities. *International Journal of Current Science Research and Review*, 7(01), 66-74.
- [2] Hidayat, M., Defitri, S. Y., & Hilman, H. (2024). The Impact of Artificial Intelligence (AI) on Financial Management. *Management Studies and Business Journal (PRODUCTIVITY)*, 1(1), 123-129.
- [3] Brightwood, S., & Jame, H. (2024). Data privacy, security, and ethical considerations in AI-powered finance.
- [4] Addula, S. R., Meduri, K., Nadella, G. S., & Gonaygunta, H. AI and Blockchain in Finance: Opportunities and Challenges for the Banking Sector.
- [5] Khan, M. S., & Umer, H. (2024). ChatGPT in finance: Applications, challenges, and solutions. *Heliyon*, 10(2).
- [6] Giudici, P., Centurelli, M., & Turchetta, S. (2024). Artificial Intelligence risk measurement. *Expert Systems with Applications*, 235, 121220.
- [7] Ariany, V. (2024). The Future of Accounting and Finance: Trends and Challenges. *Accounting Studies and Tax Journal (COUNT)*, 1(2), 150-157.
- [8] Kim, D., & Duval, C. (2024). The Role of Artificial Intelligence in Financial Statement Analysis. *Legfin Multidisciplinary Research Journal*, 14(1).
- [9] Kanaparthi, V. (2024). AI-based Personalization and Trust in Digital Finance. arXiv preprint arXiv:2401.15700.
- [10] Oberoi, S., & Puranik, M. DIGITAL FINANCE AND THE PERSPECTIVE OF GEN-Z COHORT: A REVIEW



INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  [ijirset@gmail.com](mailto:ijirset@gmail.com)



[www.ijirset.com](http://www.ijirset.com)

Scan to save the contact details