

Effective use of Artificial Intelligence in Banking Sector with special reference to Chikkamagaluru District

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Abstract: This paper focuses on the uses of Artificial intelligence in the banking sector in Chikkamagaluru District. In the fintech industry AI is one of the important inventions and how banks are effectively using this AI in the workplace, whether the banking industry need to bear huge cost to implement and effective use of AI in workplace. This study was done to know how the AI is benefitted to the customers and to the bankers, is it really helps to the customers and bankers for work and transaction or not. Banks can do the financial transaction, customer services, security, operational efficiency, personalization etc. This paper mainly focuses towards Chikkamagaluru city's both private and public sector Banks. To do the research study the data has been collected from two modes i.e. primary and secondary. A structured questionnaire is framed to collect primary data and primary data were collected from the 50 customers and from 50 bankers, and secondary data were collected through Newspaper, Magazines, and Websites etc. How banks are effectively uses the Artificial Intelligence in their Banks such as, speech recognition, chatbots, virtual assistants, fraud detection, Anti-money laundering, image recognition, credit risk management, Regulatory compliance, Recommendations, Customer segmentation, Portfolio management etc. the banking industry is undergoing ground-breaking reforms, The research paper is aims to explore the current status of Effective uses of AI in Banking sector with special reference to Chikkamagaluru city, A study was developed and evaluated in order to fulfil the goals of valuable suggestion that would benefited the customers for their easy transaction and to the banker to reduce of burden of work. This study also describes that AI financial services really satisfy the customers, clients, and what kind of progress we can see in bank after using AI. However, AI is an advanced technology in varying degree of maturity.

Key Words: Artificial Intelligence, Banker, Customers.

INTRODUCTION

1.1 The term artificial intelligence was coined and came into popular use. In 1950, the Alan Turing published computer Machinery and Intelligence which proposed a test of machine intelligence called the limitation Game. The term artificial intelligence was first used in 1956 at the Dartmouth conference. This conference marked the official start of AI research. It is the ability of a machine to perform cognitive functions we associate with human minds, such as problem solving, creating, computing, learning, interacting, reasoning, perceiving, evaluating, calculating, we can see lot of improvement in Banking sector due to AI technology. To increase productivity humans have continually developed newer machines, AI technologies or Fintech. Due to implementation of AI in banking sector we can see the significant progress in banking industry. The Artificial Intelligence has revolutionized traditional banking practices and financial services. The application of AI in banking sector has huge benefits but it also has some difficulties and dilemmas such as data security and privacy, it is very difficult to overcome come from some sensitive issues. The bank tries to give a strong security measures to protect the interest of the customers and to secure customer data. To regulate the ethical application of AI and advanced accountability, justice, and transparency, frameworks and rules must be established. To implement AI in banks and financial sector incurs huge cost, but at the same time it has its plenty of opportunities such as long term growth of the bank, helps to provide better services to the customers, fraud detection, credit scoring, Investment management, personalized banking, bias and fairness, ethical implication, chatbots, speech recognition, better decision making etc., The deployment of AI in banking and financial services, however, also has drawbacks, such as concern about data security and privacy, algorithmic bias, and possible job effects. The implementation of Artificial Intelligence is a major transformation in banking sector. In India state bank of India and HDFC banks are utilizing AI

1.2 Key applications of AI in Indian banking Document processing

AI can elicit relevant data from financial indenture like loan applications or account statements, reducing manual data entry.

Customer assistance

AI-powered chatbots and virtual assistants can handle routine customer request and queries, provide personalized instruction, and offer 24/7 support.

Credit scoring and loan sanction

Reinforcement learning models can evaluate customer data beyond traditional credit scores to assess creditworthiness or financial stability more accurately and efficient loan approvals.

Risk management

AI can identify potential risk in portfolios by analyzing market trends and customer behavior, enabling proactive risk mitigation strategies.

Personalized financial advice

By analyzing customer data, AI can provide tailored financial product recommendations based on individual needs and goals.

Compliance checks

AI can automate regulatory compliance checks by scanning documents and transactions for potential violations

Fraud Detection

AI proceeding can analyses transaction patterns in real-time to identify skeptical activity and prevent fraudulent transactions, including credit card fraud and financial crime.

II. LITERATURE REVIEW

2.1 Hickam Sadok, (2022)- This article examines the effects of artificial intelligence (AI) use on banks and other financial institutions credit score assessment process. These restrictions serve as the base for a new age of economic law that introduce the certification of AI operation and bank-used data.

2.2 Adrian Lee (Jan 23, 2017) Banking on artificial intelligence –The purpose of this article was to determine the most prominent forms of AI within the banking industry. AI-driven customer service, personalized financial advice, real-time fraud prevention and risk management, etc.,

III. OBJECTIVES OF THE STUDY

- 1.To study about effective use artificial intelligence in Chikkamagaluru banks
- 2.To study the progress of banks by using artificial intelligence in the workplace
- 3.To know about the AI enabled services provided by the bank to their customers

IV. SCOPE OF THE STUDY

The study of Artificial Intelligence in Banking Institutions such as both private and public banks, progress of banks by using artificial intelligence in their work environment.

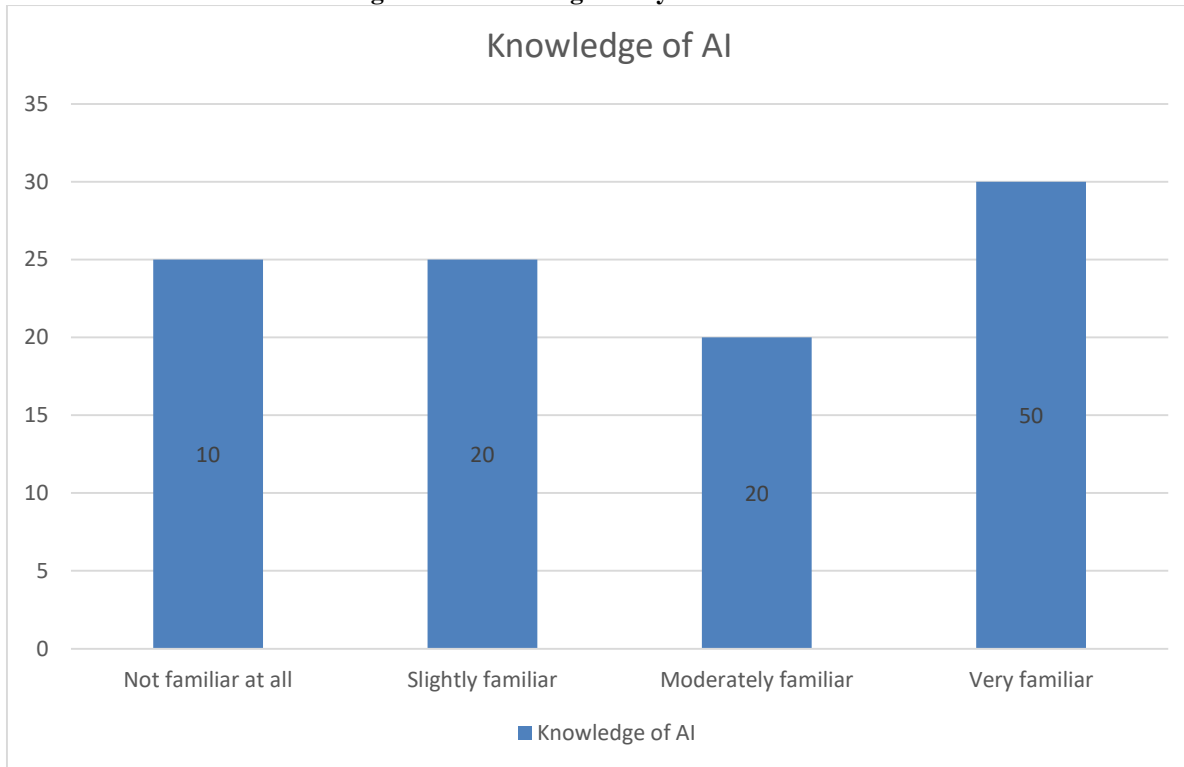
V. DATA AND METHODOLOGIES

SOURCE OF DATA

This paper describes primary, secondary and auxiliary sources. Primary data was collected through questionnaire. Secondary data was collected from the websites, newspaper, magazines, reports etc.,

ANALYSIS AND INTERPRETATION

Figure 5.1 Percentage Analysis



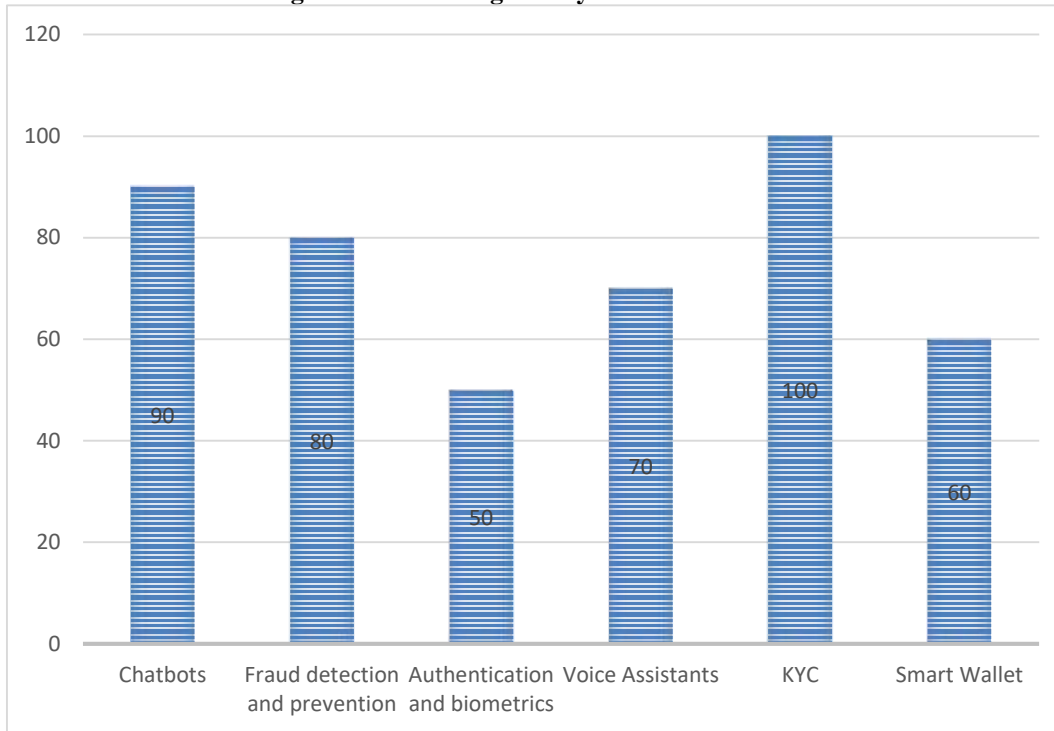
Interpretation:

One of the primary goal of our survey was to determine the familiarity of participants with AI. The responses varied greatly, with some participants claiming to be very familiar with AI, while others admitted to being not familiar at all, this highlights the varied levels of awareness and knowledge about AI, needs to create awareness in the minds of the customers, and few bankers are not so familiar with this AI application, so that the banks have to train their employees to use AI

TABLE 5.2 Multiple Response Analysis

Useful Applications of AI	YES		NO		TOTAL	
	Frequency	%	Frequency	%	Frequency	%
Chatbots	90	90	10	10	100	100
Fraud detection and prevention	80	80	20	20	100	100
Authentication and biometrics	50	50	50	50	100	100
Voice Assistants	70	70	30	30	100	100
KYC	98	98	2	2	100	100
Smart Wallet	60	60	40	40	100	100

Figure 5.2 Percentage Analysis



Interpretation: The above table shows that the frequency analysis for evaluating the useful applications of AI in Banking sector 90% of respondents says chatbots applications of AI is very useful in Bank, 80% of respondents says Fraud detection and prevention applications are useful in AI, 50% of respondents says authentication and prevention is not useful in AI, 70% of the respondents says that voice assistants is useful in AI, KYC application is very useful application in AI, all the respondents says that KYC is mandatory to use both bankers and customers, 40% of customers reveals that Smart Wallet is not useful application in AI but 60% of respondents says that it is useful because it will be helpful for cashless transaction.

VI. FINDINGS

1. 50% of the respondents are very familiar about AI in Banking sector, 10% of the respondents are not at all familiar, some customers know only KYC, and most of the customers familiar about the KYC.
2. 10% of the respondents are uneducated so, they don't have an awareness regarding AI applications and its uses.
3. 60% of the respondents are using Smart Wallet, and they all are self-employed, salaried people.
4. 80% of the respondents are very satisfied by using AI applications for their financial transaction.
5. 75% of the respondents says that, AI applications is not easy for the uneducated customers, because they don't have technical knowledge
6. 70% of the respondents strongly trust AI based investment.

VII. CONCLUSION

The bankers and the customers have huge benefits from Artificial Intelligence, based on the findings, it can be concluded that the customers and bankers are satisfied by using AI, The AI can fulfil the customers needs in related to financial transaction, providing information. Voice assistance, fraud detection, risk management, security, KYC etc. the bankers can feel easy and feel much comfortable to work by using AI in their Bank, it reduces the employees work because it has its own applications, such as chatbots, voice assistance, fraud detection, KYC, smart wallet, biometric etc. will be very helpful to

the banker. AI saves customer's money because customers no need to visit banks, they can do their banking related works through mobile phones, this is called as mobile banking, in mobile banking lot of AI applications has been introduced.

VIII. REFERENCES

1. Latimore, D. (2018) Artificial Intelligence in Banking
2. IJCRT – Volume 9 Issue 9 – SEPTEMBER 2021 A. Geetha -A STUDY ON ARTIFICIAL INTELLIGENCE (AI) IN BANKING AND FINANCIAL SERVICES International Journal of Creative Research Thoughts, ISSN No: ISSN: 2320-2882
3. IJRT – Volume 8, Issue 10 – 2023 Dr. Lalita B, Malusare – A Study of Artificial Intelligent in Banking Sector: A Study of Consumer and Bank Employee Perception toward AI based banking Services, ISSN: 2456-3315
4. Abhishek Gupta, Dwijendra Nath Dwivedi, Jigar Shah (2023) Artificial Intelligence Applications in Banking and Financial Services.

WEBSITES

5. <https://cloud.google.com>
6. <https://star-knowledge.com>
7. <https://appinventiv.com>

ANNEXURE

QUESTIONNAIRE

Dear Respondents,

I Spandana M.J, Asst. professor. Of commerce studies, Adichunchanagiri Institute of Business Management, Chikkamagaluru, Undertaking the research Titled “**Effective use of Artificial Intelligence in Banking Sector with special reference to Chikkamagaluru City**” Requesting you to provide your valuable time and response for the below questions.

PART – A

Personal Information

1. Name of the respondent:
2. Address:
3. Age:
a) Below 20 b) 21 to 35 c) 36 to 50 d) 50 and above
4. Occupation
a) Employed b) Self Employed c) Student d) Other
5. Educational qualification
a) Post Graduation b) Graduation c) Under Graduation d) SSLC and below

PART – B

Questions Related to effective use of Artificial Intelligence in Banking sector both bankers and the

customers

1. How familiar are you with AI technology?
a) Not familiar at all b) Slightly familiar c) Moderately familiar d) Very familiar
2. In which of the following banking services do you think AI Application would be most useful? (select all that apply)
a) Chatbots b) Fraud detection and prevention c) Authentication and biometrics d) Voice Assistants) KYC
f) Smart Wallet
3. Would you trust AI with your investment decisions?
a) Strongly trust b) Trust c) Neutral d) Distrust e) Strongly distrust
4. What is your level of satisfaction with the AI –based customer service in your bank?
a) Very satisfied b) satisfied c) Neutral d) Dissatisfied e) Very Satisfied
5. Do you think AI is biased in decision making?
6. a) Yes b) No c) Not Sure
7. Do you believe AI can help full to the customers?
a) Yes b) No
8. Do you believe that uneducated customers can easily use AI for banking services
a) Yes b) No

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