

Impact Of Artificial Intelligence Towards Customer Relationship Management W.R.T Private Commercial Banks At Bangalore

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Abstract:

The banking sector has seen some big and revolutionary advances, but the one that stands out the most is the increased focus on customer demands.. Customers that are technically savvy and frequently use cutting-edge advances want banks to offer seamless transactions. Financial institutions have expore their industrial landscape to include retail, IT, and telecom in order to meet these demands for activities like digital money, e-banking, and real cash transfers. While these advancements have allowed customers to access the bulk of banking services whenever and whatever they choose, they have also come at a cost to the financial industry. The benefits and drawbacks of implementing AI technology in the Indian banking sector are also clarified by this study. In this descriptive study, artificial intelligence is used in financial services, and its effects on client interactions are discussed. 167 customers of

private sector banks in Bangalore were surveyed to gather data.

Key Words: Artificial Intelligence, Relationship marketing, Banking Industry, Customer relationship.

Introduction

The banking environment has recently been more turbulent and competitive due to globalisation and increased economic openness [1]. Customers now demand superior treatment when using a company's products or services, or put another way, there is a greater focus on their satisfaction. Due to cutting-edge technology like artificial intelligence, which have become more prevalent in businesses over the past several decades, the banking industry has been thriving, and customer loyalty will continue to rise.

In financial institutions, artificial intelligence refers to technology that decides conclusions and takes actions that have previously been possible through human-to-human interaction. **The Forbes website** [2] published an article about how AI is helping financial **companies**. The paper claims that artificial intelligence is supporting financial organisations in growing, and it is expected that by 2030, AI would have gained more than \$trillion in market share in the financial industry. The paper also mentioned that commercial banks have started using AI to address a number of persistent financial problems. For instance, Bank of America has already developed a virtual assistant named Erica. Erica is an Automation tool that provides speech and text-based investment advice to the bank's clients. This facility can conduct basic transactions and is accessible to clients 24/7. Utilising this technology will help financial institutions stay abreast of the most recent developments in the IT industry [3].

Due to the nature of the contemporary corporate environment, artificial intelligence applications, like data, are essential to practically every industry, from deposit taking and lending to investment banking and asset management. In order to improve speed, accuracy, and efficiency, banks may therefore considerably benefit from autonomous data handling without human intervention. [4]. Four categories can be used to group the various potential applications of AI in the banking industry. First,

there are back-office programmes aimed towards operations and front-office apps geared towards clients. The second issue is related to the legislation that controls trading and portfolio management. Some banks have fully incorporated new technology into their business processes, while the majority are still in the testing stage. Additionally, it appears that more effort is being put into exploring AI technologies with the goal of enhancing customer service and optimising business operations.

According to the researchers of [5], financial institutions should use cognitive technologies to assist managers in making decisions. According to previous research findings [6], communicative AI systems are well-known in the banking sector for promoting speedy consumer involvement on media platforms and mobile applications. Although the use of AI technologies in banking customer interactions has been found to have definite benefits and uses, scientific research reveals that these systems still have security and reliability issues because the technology is still vulnerable to hacks [7]. The most recent research, however, differs from past study attempts in that it places a strong emphasis on AI-powered automation as a useful tool for improving customer service and providing bank customers with quick access to credible information [8].

According to researchers of [9], consumers' trust in AI technologies for customer relations is anticipated to be reasonably impacted by the automation's ease of use attribute, which has significant predictive value in generating trust for providers.

Review of Literature

According to Noreen et al. (2023), the banking sector can employ appropriate artificial intelligence-based techniques to raise the calibre of customer services as well as bank performance measures.

Karbassi Yazdi et al. (2022) suggested that the service sector is crucial for a sustainable economic development, particularly because, in contrast to traditional industries, its dependence on conventional resources is greatly decreased and it is amenable to the implementation of new and creative business models.

According to Mehdiabadi et al. (2022), the architecture of an industrial revolution created by artificial intelligence serves as the foundation for the notion of banking 5.0.

Additionally, Samartha et al. (2022) used the "Unified

theory of acceptance and use of technology" (UTAUT) model to analyse the effects of mobile banking apps and online transactions in India, an emerging market.

According to Birau et al. (2021), the banking system is a crucial mechanism for the global economy to develop at a sustainable rate.

According to Singh and Pathak (2020), the distribution channels are crucial in the context of the buying and selling process of investments in financial tools and assets because a rising nation like India is not very focused on digitization. The research study also covered the actions taken by RBI in response to the COVID-19 pandemic, as well as SEBI, the Securities Exchange Board of India, and the volatility of stock prices.

Problem Statement

In India, there is a barter system; at that time, trading and transaction are quite challenging. After that, paper notes entered the scene. People started using paper money for transactions since it was convenient and felt comfortable, and it also provided the right amount of value.

When conducting a banking transaction, a trip to the bank is required. If there is a question, one must visit the bank to get it resolved, even though this causes extra time waste. AI implementation decreases transactional time and error, but unfortunately it leads to more unemployment.

Need for the study

The study is to determine whether the application of artificial intelligence in the banking industry benefits the bank, the customer, or the clients. Positive effects of AI were then seen in how bankers and customers were affected by their interactions.

The customer's question is actually promptly resolved by chatbots, which also provide information about the loan and any other improvements made as a result of the adoption of AI in banks. What issues did customers and banks face following the deployment of AI, and what are the factors that actually benefited banking transactions.

OBJECTIVE

1. To study the impact of AI on customer support in Indian banking sector.
2. To study the influence of AI in to the bankers.

3. To examine the performance of banking sector post implementation of Artificial Intelligence.

RESEARCH METHODOLOGY

Research approach was used to attain the project goal. acquired information from the primary and secondary data to complete the project's goal. This study, which is descriptive in nature, broke the big issue down into smaller ones. Added emphasis is placed on solving more particular issues and finding novel solutions. Out of 138 crore people in India, in that divided private bank client and the banker and based on that 200 sample collected for the study. Sample refers to a subset of the study's population. The sample for the study includes both private bank clients and private banking sector bankers. Instance Size The sample size refers to the total number of sample units gathered for the investigation. 167 responses are collected.

How their banking activities were impacted by the use of artificial intelligence in banks. 30 respondents were gathered from Bank staff members. Sampling Technique The respondents for the survey were chosen using a random sampling technique. Data collection employed a primary technique. The questionnaire was divided into two sections. Demographic information is in Part A, while conceptual questions are in Part B. Regression, correlation, pie charts, and chi square are used to illustrate sample design data.

Data Collection

For this study, primary and secondary data were gathered. Primary data were gathered through questionnaires. The questionnaire used both open-ended and closed-ended questions. Bankers and clients each received a separate questionnaire.

The secondary sources of data used for this project's completion include journals, periodicals, and websites on the internet, textbooks, and a literature review.

STATISTICAL TOOLS

Table no 1 - Customer satisfaction and safety in AI Data collected from customers' perspective Test used Chi-square Table

Case Processing summary						
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
The safety of transactions is increased by AI use in banks. AI improves experiences beyond what customers	160	100	0	0	160	100

Table No-2- The use of AI in banks improves transaction security* Beyond what the customer expects, AI provides superior experiences.

The use of AI in banks improves transaction security* Beyond what the customer expects, AI provides superior experiences.					
	AI gives better experience beyond the customer expectation				Total
	Disagree	Neutral	Agree	Strongly agree	
Strongly disagree	1	3	10	1	15
Disagree	3	10	27	4	44
Neutral	1	18	22	6	47
Agree	1	5	20	2	28
Strongly agree	0	6	18	9	33
Total	6	42	97	22	167

Chi-Square Tests		
Value	df	Asymp. Sig. (2-sided)
22.376a	12	.034
21.289	12	.046
7.134	1	.008
167		
a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .53.		

Interpretation

The first table gives an overview of case processing and details how many valid examples were used for analysis. The test can only consider samples with non-missing data for both Implementing AI in banks improves transaction safety and goes above and beyond what customers want. Individual chi-squares are the findings of the chi-square testing tables. The value of the test statistic is 22.376. No cell had an expectation that was less than 5, hence the statistic alludes to the expectation that all expected cell

counts will be larger than 5, which was met. There are 12 degrees of freedom (df). The test statistic's associated p-value is $p = 0.034$. We must reject the null hypothesis because the p-value is smaller than the significant level we established ($\alpha = 0.05$). Instead, we come to the conclusion that there is insufficient data to draw a link between the use of AI in banks and an improvement in customer experience that goes above and beyond their expectations.

Table no3 Digital transaction and customer experience

Case Processing Summary						
		Cases				
		Valid		Missing		Total
		N	Percent	N	Percent	N
AI Service motivates the customers to do digital transactions *						
AI gives better experience beyond the customer expectation		167	100.0%	0	.0%	167
Cross tabulation						

Table No-4AI Service motivates the customers to do digital transactions * AI gives better experience beyond the customer expectation Cross tabulation

			AI gives better experience beyond the customer expectation Cross tabulation				Total
			Disagree	Neutral	Agree	Strongly agree	
AI9	Disagree	Count	1	4	8	0	13
		Expected Count	.5	3.2	7.4	1.9	13.0
	Neutral	Count	1	21	20	5	47
		Expected Count	1.7	11.6	26.8	6.9	47.0
	Agree	Count	3	12	56	8	79
		Expected Count	2.8	19.5	45.1	11.6	79.0
	Strongly agree	Count	1	5	13	12	31
		Expected Count	1.1	7.7	17.7	4.6	31.0
Total		Count	6	42	97	22	167
		Expected Count	6.0	42.0	97.0	22.0	167.0

Table No 5

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.908a	9	.000
Likelihood Ratio	31.302	9	.000
Linear-by-Linear Association	12.720	1	.000
N of Valid Cases	170		

7 cells (43.8%) have expected count less than 5. The minimum expected count is .46.

Interpretation

The first table gives an overview of case processing and details how many valid examples were used for analysis. The test can only include instances where there are no missing data for both the implementation of AI services that encourage customers to do digital transactions and the provision of AI with better experiences than anticipated by the customer.

Individual chi-squares are the findings of the chi-square testing tables. The value of the test statistic is 33.908. No cell had an expectation that was less than 5, hence the statistic alludes to the expectation that all expected cell counts will be larger than 5, which was met. There are nine degrees of freedom (df). The test statistic's matching p-value is $p = 0.000$. due to the p-value.

SUGGESTIONS

Customers should think about moving to digital transactions because they are becoming more popular and it is important to keep up with them. Additionally, buyers should search for new information, follow it, and stay away from fraud when it arises. When AI is applied in a bank, the bank should also inform or educate the public about it. Because of this, more people are using it, and even those who are unwilling to adapt, unsure of how to use it, or afraid of it will learn about its implementation in banks, which will aid the bank in boosting the use of AI in the banking industry.

CONCLUSIONS

The world of banking is evolving more quickly than ever thanks to artificial intelligence (AI), which is driving a revolution in the financial sector. Numerous AI technologies have been applied in the banking sector in areas such as core banking, operational performance, customer service, and analytics. Instead of only physical locations, banking

now includes a whole new world of modern banks for AI. The addition of new financial services by contemporary banks promotes their development and growth. Technology makes it possible to undertake low-value transactions, enhance banking system penetration, and increase cost effectiveness. Effective application of technology multiplies the growth and development of banks. As a result, the adoption of artificial intelligence increases client interest and encourages further bank expansion. Banks may employ AI to improve the customer experience by making it possible for 24/7 frictionless client interaction. The application of AI in banking apps, however, is not just for retail banking services. In investment banking's back and middle offices as well as all other financial supervisions, AI is advancing.

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