

A Study on Challenges faced by the banking customers in handling operations linked with artificial intelligence - with special reference to internet banking users in Trichy region

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ABSTRACT

The purpose of this study is to evaluate the customers perception towards challenges faced by the banking users in handling operations linked with artificial intelligence with special reference to internet banking users in Trichy region. For this study, the data collected from 145 respondents were taken in Trichy region with the help of well-questionnaire. This study was conducted with due reference of literature review. This study focused on challenges faced by the banks in handling operations linked with Artificial Intelligence based upon the customers perception. Analysis was made by the use of statistical tools like percentage analysis and ANOVA test. This study clearly shows the challenges faced by the banking customers using Artificial intelligences.

Keywords: Artificial intelligence, Internet banking, Banking operations.

I. INTRODUCTION

Artificial intelligence is an approach to make a computer, a robot, or a product to think how smart human think. AI is a study of human brain think, learn, decide and work, when it tries to solve problems. The aim of AI is to improve computer functions which are related to human knowledge [17].

The intelligence is intangible. It is composed of reasoning, learning, problem solving, perception, linguistic Intelligence.

1.1 Artificial intelligence in banking sector:

Since 2016, many traditional banks have partnered with fintech start-ups or developed in-house solutions to provide consumers with modernised banking products. In the mid-1950s, the phrase "artificial intelligence" was coined. Although there are other definitions, Accenture defines AI in the context of banking as "a computer system that can detect, interpret, act, and learn." To put it another way, a system that can see the world around it, analyse and understand the information it gets, act on that understanding, and improve its performance by learning from its mistakes. And, by allowing robots to interact more naturally with their surroundings, people, and data, technology can expand both humans and machines' capacities well beyond what they can do on their own.

In the banking industry, artificial intelligence makes banks more efficient, trustworthy, helpful, and understanding. In current digital era, it is enhancing modern banks' competitive advantage. The expanding influence of AI in the banking sector reduces operational costs, enhances customer service, and automates processes. Furthermore, AI in banking assists consumers in selecting loan amounts at a competitive interest rate. In the banking industry, AI technology allows institutions to automate procedures and work within existing regulatory compliance.

1.2 Banks used Artificial Intelligence:

State Bank of India

The State Bank of India (SBI) is the country's largest public sector banking services provider. Artificial intelligence is used by the bank to provide successful banking services. SBI Intelligent Assistant (SIA), an AI-powered smart chat assistant, responds to customer queries quickly and assists them with common banking operations in the same way as a human would. This smart chat assistant, developed by AI banking platform Payjo, is capable of handling approximately 10,000 requests per second, or 864 million per day, or nearly 25% of the queries received by Google each day, according to sources [16].

HDFC

HDFC, based in Mumbai, is another AI-enabled Indian banking and financial services company. Eva, the bank's smart chatbot, works with Google Assistant on millions of Android devices to answer consumer questions and improve services. Eva, developed by Bengaluru-based Sense Forward AI Research, is said to have answered over five million user queries with an accuracy of more than 85 percent. On Chat, an AI-enabled chatbot from HDFC, debuted on Facebook Messenger in 2016 [16].

ICICI

ICICI Bank, India's largest private sector bank, has implemented software robotics in over 200 business processes across the company's many functions. The bank became the first in the country to use an AI system on a wide scale in numerous procedures as a result of this. According to the report, ICICI bank has scaled its RPA initiative to over 750 software robotics handling nearly 2 million transactions daily, which is 20% of the transaction volumes [16].

Axis

Axis Bank's AI-powered bot allows consumers to communicate about their banking difficulties at any time and from anywhere. In July 2020, AXAA, India's third-largest private sector bank, debuted a conversational interactive voice response (IVR) system. AXAA, a next-generation multilingual voice bot, helps clients navigate the IVR and responds to their questions and requests without the need for human intervention in the majority of cases. The private lender also has a 'Thought Factory' innovation lab, which aims to speed up the creation of novel AI technology solutions for the banking industry [16].

Bank of Baroda

Another public sector lender, Bank of Baroda, is modernising banking services and lowering account management costs while focusing on increasing customer experience with AI. The bank employs cutting-edge technology such as an artificial intelligence robot named Baroda Brainy and a Digital Lab with free Wi-Fi. It also has ADI, a chatbot (Assisted Digital Interaction). In 2018, Bank of Baroda teamed up with IBM and Accenture to create a cutting-edge IT and Analytics Centre of Excellence (ACoE) [16].

Andhra Bank

In April 2020, Andhra Bank merged with Union Bank of India, becoming a medium-sized public sector bank in India. The bank has implemented new technology because it has a network of branches and numerous satellite offices throughout the country. To respond to customer concerns quickly and effectively, the bank employs an AI interactive assistant known as "ABHi." Floatbot's AI chatbot is linked with Andhra Bank's Core Banking Servers (CBS) and will automate customer service for the bank's five crore account customers [16].

Kotak Mahindra Bank

Kotak Mahindra powers millions of Kotak customers with a smart AI-enabled chatbot that is available 24 hours a day, 7 days a week to answer banking questions. Keya, a bilingual voice Bot, is integrated with Kotak's phone banking helpline and will supplement the traditional interactive voice response (IVR) system. In 2019, the bank released Keya 2.0, a speech bot with improved functionality.

II. LITERATURE REVIEW

1. **Praveen Kumar Donepudi (2017)** we can aptly say that Machine Learning and Artificial Intelligence technologies are taking over the banking sector, and it seems like there's nothing we can do about it. Customers are a smart lot nowadays. They have realized that technology is not expensive or complicated to learn; everything is bundled together in a smartphone that an ordinary man can easily operate.
2. **Dr. Simran Jewandah (2018)** to explore the areas where the AI is being used in the Banking Sector and its implication in the top banks in India.
3. **Ritu Tuli Sameer Salunkhe (2019)** The sector has challenges in terms of awareness, acceptance of new technology, issues with security and data threat. Banks need to promote these products and should have strong policies in place to enable its optimum usage.
4. **Aishwaryalakshmi.S and Dr. k. Suresh Kumar (2020)** to provide personalized and high-quality customer satisfaction along with efficient and time saving services.
5. **Kishore Meghani (2020)** The study was conducted to know the importance of using Artificial Intelligence and Block Chain especially in the Banks to reduce the dependency on the human element also to understand what can be the possible implications of the use of artificial intelligence and Block Chain.
6. **Dr. Monika Sharma, Dr. Navleen Kaur and Ms. Supriya Lamba Sahdev (2020)** Banks can apply AI to improve the client experience by empowering frictionless, round the clock client association - however AI in banking applications isn't simply restricted to retail banking services. The back and middle office of investment banking and all other money related supervisions are gaining by AI.
7. **Arvid Hoffmann, Janin Karoli Hentzen, and Rebecca Dolan (2021)** The accuracy and performance of AI algorithms to assist with credit scoring or investigating AI consumer adoption behaviours in a banking context.
8. **Geetha. A (2021)** The customers more commitment from representatives to the banking and financial services by giving development innovative preparing to improve the AI procedures in the workplace.
9. **Veeranjaneyulu Veerla (2021)** In general and focusses on recent developments in context of India's banking sector, urging banking leadership to shift their focus proactively towards leveraging AI with an objective to bring in delight for customers.

III. OBJECTIVES OF THE STUDY

- To identify banking operations linked with Artificial Intelligence.
- To identify and measure the variables associated with banking operations linked with Artificial Intelligence.
- To analyse challenges faced by banking customers in handling operations linked with Artificial Intelligence.

IV. VARIABLES

- Chatbots
- Cyber security and Fraud detection
- Loan and credit decision
- Process automation
- Tracking market trends.

V. RESEARCH METHODOLOGY

RESEARCH DESIGN

The research design used in the study is descriptive analysis. Descriptive research describes data and characteristics about the population or phenomenon being studied. It set up the blueprint for the collection, measurement and analysis of data. The research design is the conceptual structure within which research is shown. It is a plan that specifies the sources and types of information related to the research problem.

DESCRIPTIVE METHOD

This research is completely based on the description of the factors that lead to the perception and awareness of consumers. It is basically valued on the various parameters which include consumer preferences, attitudes and their demographic factors.

SAMPLE SIZE

The sample size taken for this study is 145 respondents.

SAMPLING TECHNIQUE

Convenient Sampling Method is implemented to collect the primary data. The respondents for the purpose of this study are selected systematically.

DATA COLLECTION

In this study, “A study on Challenges faced by the banks in handling operations linked with artificial intelligence” – Data will be collected through primary sources.

STATISTICAL RESEARCH TOOL

The statistical tools applied for the study include the following are

- Percentage method
- ANOVA test

VI. DATA ANALYSIS AND INTERPRETATION

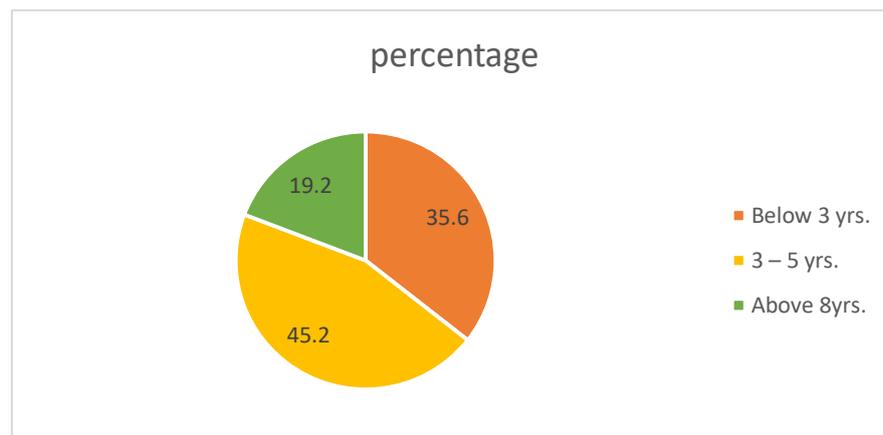
6.1 PERCENTAGE ANALYSIS

Table 6.1.1 Demographic profile of the respondents

S.No.	Demographic profile of the respondents	No. of Respondents	Percentage
	Age		
	Below 25 years		
	25 – 35 years	36	21.9
	35 – 45 years	32	24.7
	Above 45 years	18	12.3
	Gender		
	Male		
	Female	61	41.8
	Qualification		
	UG		
	PG	64	43.8
	Diploma	38	30.1
	Occupation		
	House wife		
	Student	34	23.3
	Employee	51	34.9
	Business Man	27	18.5
	Agriculture	11	7.5
	Monthly Income		
	Below 20k		
	20k – 40k	36	24.7
	60k – 80k	37	25.3
	Above 80k	28	19.2

Table 6.1.2 Period of holding account

S.No.	Categories	No. of respondents	percentage
1.	Below 3 yrs.	66	35.6
2.	3 – 5 yrs.	52	45.2
3.	Above 8yrs.	27	19.2

**Figure 6.1.1****Interpretation**

The above table shows that, 35.6% respondents are holding accounts on below 3 years, 45.2% respondents are holding accounts on 3 to 5 years and 19.2% respondents are holding accounts on above 8years.

Table 6.1.3 Chatbot

S.No.	Particulars	No. of respondents					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
		61	35	8	36	5	41.8	24	6.1	24.7	3.4
2.	Send information about balance inquiry, mini statement correctly.	11	71	7	42	14	7.5	48.6	5.5	28.8	9.6
3.	Send reminders and regular alerts about payment deadline at the right time.	20	33	9	71	12	13.7	22.6	6.9	48.6	8.2
4.	Customers are highly satisfied with respect to chatbot’s service.	12	31	7	42	53	8.2	21.2	5.5	28.8	36.3
5.	Chatbot recognizes the voice of customers and understand it properly.	50	24	7	42	22	34.2	16.4	5.5	28.8	15.1
6.	Chatbot responds quickly to the queries of customers.	16	62	9	37	21	11	42.5	6.8	25.3	14.4

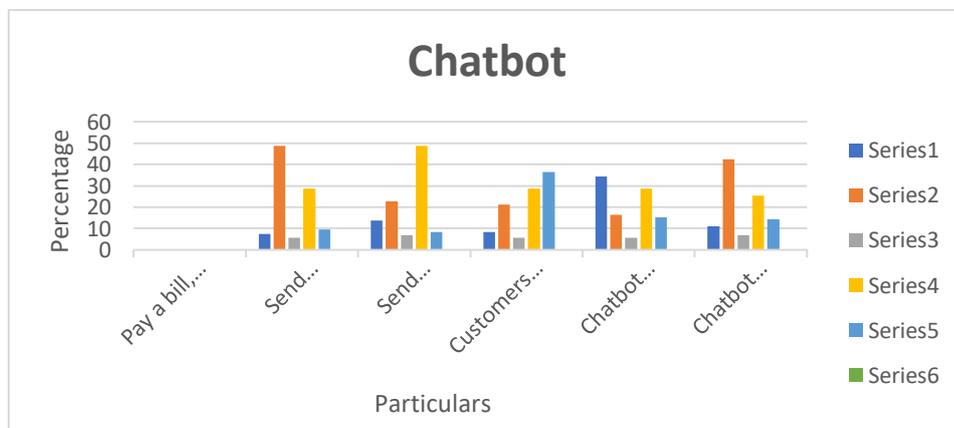


Figure 6.1.2

Interpretation

The above table shows that, 41.8% of respondents are disagree and 24.7% of respondents are agree with the Pay a bill, track money transfer and setup or cancel payments. 48.6% of respondents are disagree and 28.8% of respondents are agree with the Send information about balance inquiry, mini statement correctly. 48.6% of respondents are agree and 22.6% of respondents are agree with the Send reminders and regular alerts about payment deadline at the right time. 36.3% of respondents are Strongly agree and 21.2% of respondents are disagree with the Customers are highly satisfied with respect to chatbot’s service. 34.2% of respondents are Strongly disagree and 28.8% of respondents are agree with the Chatbot recognizes the voice of customers and understand it properly. 42.5% of respondents are disagree and 25.3% of respondents are agree with the Chatbot responds quickly to the queries of customers.

Table 6.1.4 Cybersecurity and Fraud Detection

S.No.	Particulars	No. of respondents					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
		13	34	10	70	18	8.9	23.3	7.5	47.9	12.3
2.	All online transactions is secured by OTP.	16	20	7	46	56	11	13.7	5.5	31.5	38.4

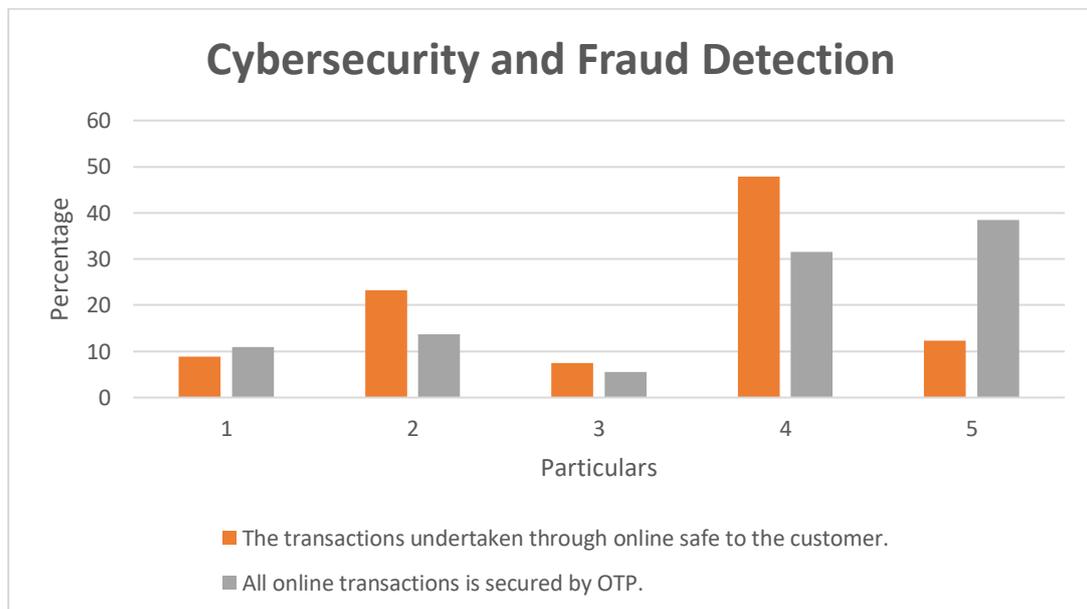


Figure 6.1.3

Interpretation

The above table shows that, 47.9% of respondents are agree and 23.3% of respondents are disagree with the transactions undertaken through online safe to the customer. 38.4% of respondents are strongly agree and 13.7% of respondents are agree with the all-online transactions is secured by OTP.

Table 6.1.5 Loan and Credit decision

S.No.	Particulars	No. of respondents					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
		51	43	6	23	22	34.9	29.5	4.8	15.8	15.1

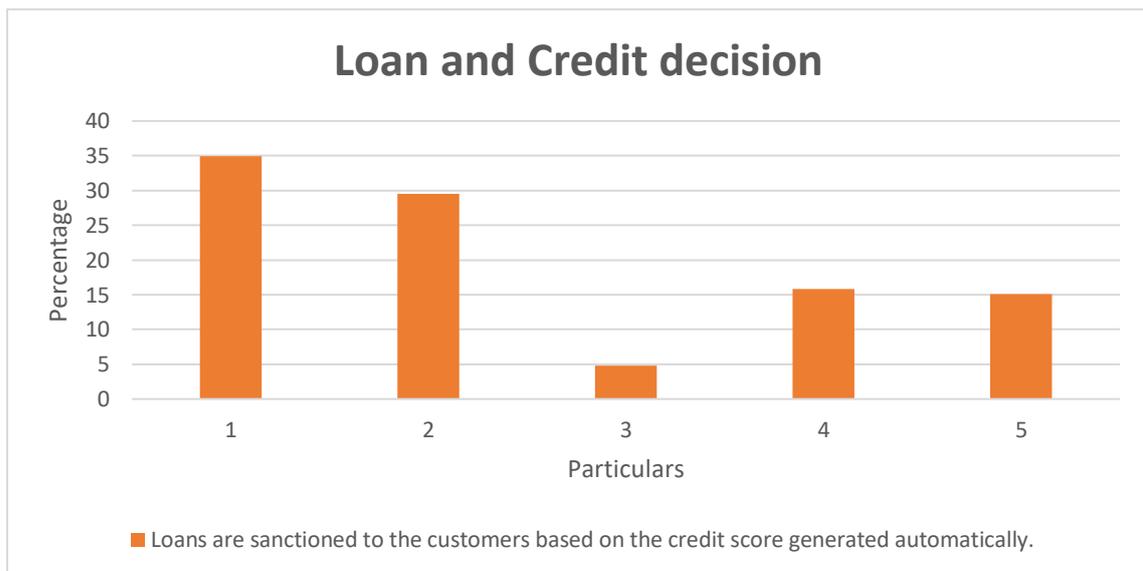


Figure 6.1.4

Interpretation

The above table shows that 34.9% of respondents are strongly agree and 15.8% of respondents are agree with the Loans are sanctioned to the customers based on the credit score generated automatically.

Table 6.1.6 Process Automation

S.No.	Particulars	No. of respondents					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
		19	69	4	33	20	13	47.3	3.4	22.6	13.7
2.	Customers are reminded promptly about submission of required documents.	17	41	7	61	19	11.6	28.1	5.5	41.8	13
3.	Guides the customer regarding application and obtaining of loan.	18	36	9	33	49	12.3	24.7	6.8	22.6	33.6
4.	Guides the customer regarding account opening.	41	43	12	28	21	28.1	29.5	8.9	19.2	14.4

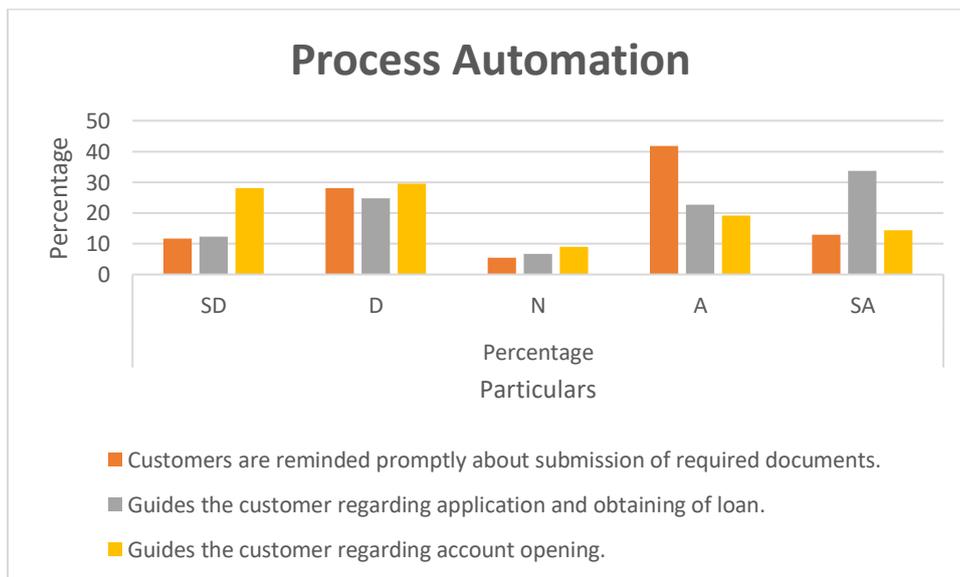


Figure 6.1.5

Interpretation

The above table shows that, 47.3% of respondents are disagree and 22.6% of respondents are agree with the Increases operational efficiency and reduces operational cost. 41.8% of respondents are agree and 28.1% of

respondents are disagree with Customers are reminded promptly about submission of required documents. 24.7% of respondents are disagree and 22.6% of respondents are agree with the Guides the customer regarding application and obtaining of loan. 29.5% of respondents are disagree and 19.2% of respondents are agree with the Guides the customer regarding account opening.

Table 6.1.7 Tracking Marketing trends

S.No.	Particulars	No. of respondents					Percentage				
		SD	D	N	A	SA	SD	D	N	A	SA
		18	68	8	31	20	12.3	46.6	6.2	21.2	13.7

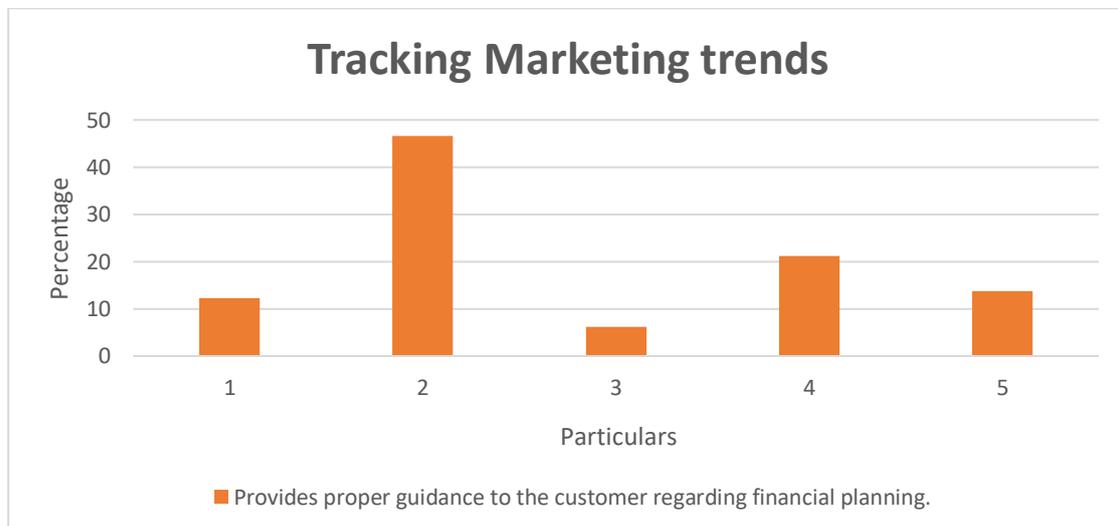


Figure 6.1.6

Interpretation

The above table shows that 46.6% of respondents are disagree and 21.2% of respondents are agree with the Provides proper guidance to the customer regarding financial planning.

6.2 ANOVA test

HYPOTHESIS 1:

Null Hypothesis H0: There is no significant relation between Qualification and pay a bill, track money transfer and setup or cancel payments.

Alternative Hypothesis H1: There is significant relation between Qualification and pay a bill, track money transfer and setup or cancel payments.

Table 6.2.1 ANOVA

Chatbot helps to pay a bill, track money transfer and setup or cancel payments.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.573	2	.286	.163	.850
Within Groups	249.979	142	1.760		
Total	250.552	144			

Interpretation

The F-value is 0.163 and the level of significance (P-value) is 0.850. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and pay a bill, track money transfer and setup or cancel payments.

HYPOTHESIS 2:

Null Hypothesis H0: There is no significant relation between Qualification and It sends information about balance inquiry, mini statement correctly.

Alternative Hypothesis H1: There is significant relation between Qualification and It sends information about balance inquiry, mini statement correctly.

Table 6.2.2 ANOVA

It sends information about balance inquiry, mini statement correctly.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.744	2	.872	.596	.552
Within Groups	207.608	142	1.462		
Total	209.352	144			

Interpretation

The F-value is 0.596 and the level of significance (P-value) is 0.552. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H₀ and Accept Alternative Hypothesis H₁, it concluded that there is significant relation between Qualification and It sends information about balance inquiry, mini statement correctly.

HYPOTHESIS 3:

Null Hypothesis H₀: There is no significant relation between Qualification and recognizes the voice of customers and understand it properly.

Alternative Hypothesis H₁: There is significant relation between Qualification and recognizes the voice of customers and understand it properly.

Table 6.2.3 ANOVA

The chatbot recognizes the voice of customers and understand it properly.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.526	2	8.263	3.583	.030
Within Groups	327.516	142	2.306		
Total	344.041	144			

Interpretation

The F-value is 3.583 and the level of significance (P-value) is 0.030. Therefore, significant value is greater than 0.05, Accept Null Hypothesis H₀ and Reject Alternative Hypothesis H₁, it concluded that there is no significant relation between Qualification and recognizes the voice of customers and understand it properly.

HYPOTHESIS 4:

Null Hypothesis H0: There is no significant relation between Qualification and responds quickly to the queries of customers.

Alternative Hypothesis H1: There is significant relation between Qualification and responds quickly to the queries of customers.

Table 6.2.4 ANOVA

Chatbot responds quickly to the queries of customers.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.470	2	.735	.428	.653
Within Groups	243.978	142	1.718		
Total	245.448	144			

Interpretation

The F-value is 0.428 and the level of significance (P-value) is 0.653. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification responds quickly to the queries of customers.

HYPOTHESIS 5:

Null Hypothesis H0: There is no significant relation between Qualification and responds Loans are sanctioned to the customers based on the credit score generated automatically.

Alternative Hypothesis H1: There is significant relation between Qualification and Loans are sanctioned to the customers based on the credit score generated automatically.

Table 6.2.5 ANOVA

Loans are sanctioned to the customers based on the credit score generated automatically.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.143	2	1.071	.488	.615

Within Groups	311.816	142	2.196	
Total	313.959	144		

Interpretation

The F-value is 0.488 and the level of significance (P-value) is 0.615. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and Loans are sanctioned to the customers based on the credit score generated automatically.

HYPOTHESIS 6:

Null Hypothesis H0: There is no significant relation between Qualification and Increases operational efficiency and reduces operational cost.

Alternative Hypothesis H1: There is significant relation between Qualification and Increases operational efficiency and reduces operational cost.

Table 6.2.6 ANOVA

Increases operational efficiency and reduces operational cost.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.677	2	.338	.193	.825
Within Groups	249.351	142	1.756		
Total	250.028	144			

Interpretation

The F-value is 0.193 and the level of significance (P-value) is 0.825. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and Increases operational efficiency and reduces operational cost.

HYPOTHESIS 7:

Null Hypothesis H0: There is no significant relation between Qualification and guides the customer regarding account opening.

Alternative Hypothesis H1: There is significant relation between Qualification and guides the customer regarding account opening.

Table 6.2.7 ANOVA

Guides the customer regarding account opening.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.291	2	.645	.309	.735
Within Groups	296.847	142	2.090		
Total	298.138	144			

Interpretation

The F-value is 0.309 and the level of significance (P-value) is 0.735. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and guides the customer regarding account opening.

HYPOTHESIS 8:

Null Hypothesis H0: There is no significant relation between Qualification and provides proper guidance to the customer regarding financial planning.

Alternative Hypothesis H1: There is significant relation between Qualification and provides proper guidance to the customer regarding financial planning.

Table 6.2.8 ANOVA

Provides proper guidance to the customer regarding financial planning

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.619	2	2.309	1.373	.257
Within Groups	238.871	142	1.682		
Total	243.490	144			

Interpretation

The F-value is 1.373 and the level of significance (P-value) is 0.257. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and provides proper guidance to the customer regarding financial planning.

VII. FINDINGS

- The majority of respondents are chosen disagree about pay a bill, track money transfer and setup or cancel payments.
- The majority of respondents are chosen disagree about send information about balance inquiry, mini statement correctly.
- The majority of respondents are chosen agree about send reminders and regular alerts about payment deadline at the right time.
- The majority of respondents are chosen strongly agree about customers are highly satisfied with respect to chatbot's service.
- The majority of respondents are chosen strongly disagree about chatbot recognizes the voice of customers and understand it properly.
- The majority of respondents are chosen disagree about chatbot responds quickly to the queries of customers.
- The majority of respondents are chosen agree about the transactions undertaken through online safe to the customer.
- The majority of respondents are chosen strongly agree about all-online transactions is secured by OTP.
- The majority of respondents are chosen agree about the loans are sanctioned to the customers based on the credit score generated automatically.
- The majority of respondents are chosen disagree about increases operational efficiency and reduces operational cost.
- The majority of respondents are chosen agree about the customers are reminded promptly about submission of required documents.
- The majority of respondents are chosen disagree about the guides the customer regarding application and obtaining of loan.
- The majority of respondents are chosen disagree about the guides the customer regarding account opening.
- The majority of respondents are chosen disagree about the provides proper guidance to the customer regarding financial planning.
- The F-value is 0.163 and the level of significance (P-value) is 0.850. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H₀ and Accept Alternative Hypothesis H₁, it concluded that there is significant relation between Qualification and pay a bill, track money transfer and setup or cancel payments.
- The F-value is 0.596 and the level of significance (P-value) is 0.552. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H₀ and Accept Alternative Hypothesis H₁, it concluded that there is significant relation between Qualification and It sends information about balance inquiry, mini statement correctly.

- The F-value is 3.583 and the level of significance (P-value) is 0.030. Therefore, significant value is greater than 0.05, Accept Null Hypothesis H0 and Reject Alternative Hypothesis H1, it concluded that there is no significant relation between Qualification and recognizes the voice of customers and understand it properly.
- The F-value is 0.428 and the level of significance (P-value) is 0.653. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification responds quickly to the queries of customers.
- The F-value is 0.488 and the level of significance (P-value) is 0.615. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and Loans are sanctioned to the customers based on the credit score generated automatically.
- The F-value is 0.193 and the level of significance (P-value) is 0.825. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and Increases operational efficiency and reduces operational cost.
- The F-value is 0.309 and the level of significance (P-value) is 0.735. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and guides the customer regarding account opening.
- The F-value is 1.373 and the level of significance (P-value) is 0.257. Therefore, significant value is greater than 0.05, Reject Null Hypothesis H0 and Accept Alternative Hypothesis H1, it concluded that there is significant relation between Qualification and provides proper guidance to the customer regarding financial planning.

VIII. SUGGESTION

- The customers are satisfied about send reminders and regular alerts about payment deadline at the right time they shall maintain it for future period and improve extra features also.
- The customers are satisfied about loans are sanctioned to the customers based on the credit score generated automatically and customers are reminded promptly about submission of required documents they shall maintain it for future period and improve extra features also.
- The customers are satisfied about transactions undertaken through online safe to the customer, all-online transactions are secured by OTP they shall maintain it for future period and improve extra features also.
- The customers are not satisfied with increases operational efficiency and reduces operational cost and guides the customer regarding account opening so they improve to satisfied the customers.
- The customer's qualification influences the proper guidance to the customer regarding financial planning so they improve to satisfied the customers.

IX. CONCLUSION

Artificial intelligence is becoming more and more popular, and banks are researching and putting it to use to change how consumers are supported. This study comes to the conclusion that customers have trouble handling operations linked with AI. Improving some feature based upon satisfied to the customers. Therefore, artificial intelligence has a highly promising future in the banking industry, and its implementation will make it even simpler for customers to conduct transactions from any location and at any time without having to stand in long lines at the bank.

REFERENCE

- [1] Akalya. A (2020) "Impact and challenges of Artificial Intelligence in Banking" Journal of information and Computational Science, Volume 10 Issue 2.
- [2] Amer Awad Alzaidi (2018) "Impact of Artificial Intelligence on Performance of Banking Industry in Middle East" IJCSNS International Journal of Computer Science and Network Security, VOL.18 No.10.
- [3] Erol Pala (2021) "Artificial intelligence in customer facing financial services: a systematic literature review and agenda for future research" International Journal of Bank Marketing.
- [4] Geetha. A (2021) "A STUDY ON ARTIFICIAL INTELLIGENCE (AI) IN BANKING AND FINANCIAL SERVICES" International Journal of Creative Research Thoughts (IJCRT) Volume 9, Issue 9.
- [5] Kishore Meghani (2020) "USE OF ARTIFICIAL INTELLIGENCE AND BLOCKCHAIN IN BANKING SECTOR: A STUDY OF SCHEDULED COMMERCIAL BANKS IN INDIA" INDIAN JOURNAL OF APPLIED RESEARCH Volume - 10 | Issue – 8.
- [6] Laraibe Siddiqu (2020) "THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON THE BANKING INDUSTRY & HOW AI IS CHANGING THE FACE OF MODERN DAY BANKS" International Journal of Management (IJM) Volume 11, Issue 6.
- [7] Praveen Kumar Donepudi (2017) "Machine Learning and Artificial Intelligence in Banking" Engineering International, Volume 5, No 2.
- [8] Ritu Tuli Sameer Salunkhe (2019) "Role of Artificial Intelligence in Providing Customer Services with Special Reference to SBI and HDFC Bank" International Journal of Recent Technology and Engineering (IJRTE) Volume-8 Issue-4.
- [9] Dr. Simran Jewandah (2018) "How Artificial Intelligence Is Changing the Banking Sector –A Case Study of top four Commercial Indian Bank" International Journal of Management, Technology And Engineering Volume 8, Issue 7.
- [10] Veeranjaneyulu Veerla (2021) "To Study the Impact of Artificial Intelligence as Predictive Model in Banking Sector: Novel Approach" INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY Volume 7 Issue 8.
- [11] Dr.C. Vijai (2019) "ARTIFICIAL INTELLIGENCE IN INDIAN BANKING SECTOR: CHALLENGES AND OPPORTUNITIES" Int. J. Adv. Res. 7(5).
- [12] www.analyticsinsight.net
- [13] <https://www.investopedia.com>
- [14] <https://towardsdatascience.com/enabling-data-ai-in-retail-banking-part-1-customer-analytics-journey-54a7ce7d2a81>.

[15] <https://www.techtarget.com/searchsecurity/definition/fraud-detection>.

[16] <https://www.analyticsinsight.net/banking-of-tomorrow-top-indian-banks-using-artificial-intelligence/#:~:text=ICICI%20Bank%2C%20a%20leading%20private,large%20scale%20in%20various%20processes>.

[17] <https://becominghuman.ai/introduction-to-artificial-intelligence>.