

Customer Perception Towards Ai Chatbots Acceptance In Bangalore: An Empirical Investigation Among Banks

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Abstract

The present study has got the aim of measuring the perception of the customers regarding the AI chatbots. The study has been done in Bangalore. The study done here proves to be beneficial for the bankers of public as well as private sector and the financial experts as well as the general public to understand the level to which the practices of E-banking are being adopted by the bank customers and the satisfaction and benefits which they have derived from such a practice. The data has been collection is based on questionnaire and the respondents are the customers of two public sector and two private sector banks of Bangalore. The scholar has designed the questionnaire by keeping the objectives of the study as the matter of concern. The number of respondents of the study is 117 respondents have been selected through simple random sampling and the collected data has analysed by multiple regression. The findings of analysis reveal that consumer perception towards the AI chatbots is predicted through factors which affected the usage of AI chatbots, the problems faced in such a usage, satisfaction and awareness regarding the same.

KEYWORDS: Consumer Perception, Awareness, Level of Satisfaction, Problem faced and Factors, Influencing AI Chatbot Usage.

1. Introduction

The present-day developments in technology has paved the way to a new change in every aspect of human life. Banking sector is also not an exception in this regard. The sector is influenced with the advancements in internet. Beyond branch banking, the banks provide their services through electronic modes. The banks provide their services through electronic modes through varied delivery channels like internet PC banking, ATM, mobile banking and telephone banking. Further, the customers are facilitated to perform all their banking activities at home through personal computer without actually visiting the bank. Electronic banking services offer the consumers with a wide variety of services like transferring money to accounts, payment of bills, checking the bank balance, purchase and sale of mutual funds and submitting electronic loan applications with the help of PC banking.

AI (Artificial Intelligence) performs the functions and activities of a bank staff. The customers get the facility of interacting with the AI chatbots for the purpose of performing bank-related transactions. Artificial Intelligence carried out its functions with the help of facial expression recognition and speech recognition technology. The technology of AI is identified as cost-effective in developed nations where the operation costs in banks are high. But, in nations like India, such a development would take time since the Robotics cost is found to be high. Several Indian banks have started to adopt innovative ways, like mobile ¹banking, ATMs, online banking etc., for making the bank-related awareness effective, efficient and convenient, it is also similarly essential for

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ascertaining the awareness of the customers regarding the banking services through electronic modes.

As in the banking sector, customer satisfaction is achieved with the help of quality service. The customers of the present times expect the banks to offer high quality services with the help of AI Chatbots. In the words of Davidow & Vital (1989), increasing the satisfaction of customers with the help of quality customer service is the major weapon to be adopted by banks. Public and private banks have got the duty of facing several long-lasting issues like the balance of payment. For such purposes, the government has initiated measures such as structural adjustments and stabilization.

The banking sector has got certain domestic as well as external problems. The domestic challenges include increased cost of performing the business, extent of the non-performing assets, etc. External issues include extraordinary upsurge of capital flows, integrating the financial markets throughout the globe, etc. This study aims to examine the factors which underlie the perception of customers to get interacted with the bank chatbots. The scholar examined the role played by AI-chatbots quality and its effect over the acceptance of AI chatbots by the consumers.

2. Review of Literature

Latha & Mohanasundari (2017) examined the emergence of E-banking has changed the ways in which the banks conduct their business activities in a traditional manner and also the manner in which the customers carry out their bank-related functions. The concept of E-banking is observed to have gained massive growth and it has also turned to be one major avenue for the banks in delivering their services. E-banking has been defined to be the automated delivery of banking services and products to customers directly with the help of interactive and electronic communication channels. The Indian future banking is observed to be transformative and exciting. In spite of certain complicated working atmosphere in present times, the banks are the largest intermediaries in the financial sector. It is predicted that the future technology will turn the banking engagement as a multi-dimensional one. **Alboqami, Hassan (2023)** stated that prior studies had focused more over the factors which affected the behaviors and intentions of customers in adopting IT in retail sectors. But, very few studies had been done to explore the factors which affected the intentions of the customers in adopting the chatbots in retail sector. Such factors have been explored in this study through the usage of the models of technology acceptance. Data had been collected from the customers with the help of online survey. Quantitative data had been collected from the consumers of retail sector in Saudi Arabia. The sample size of the study was 903 and analysis was done through SEM. Findings shows the perceived usefulness, ease of use and intelligence had an optimistic effect over the intentions of the customers in adopting the chatbots. It was also revealed that the customer intentions get negatively affected by the technological anxiety. Anthropomorphism played the role of a moderator over the relationship of the variables of the study. **Mohanasundari & Latha (2018)** said that banks are major role in a country's economic development. The advancements of technology had changed the ways of doing traditional business by the banks to electronic ways. E-banking means the total set of activities of banks are being adopted by technology. Electronic cheque transaction, RTGS, EFT, phone banking, debit cards, credit cards, internet banking and ATM are some of the services offered through e-banking. Technology had enabled the banks in providing banking services to its customers anytime and anywhere. The main feature essential for e-banking are technology and the security standards. The scholars of the study had examined the challenges which were faced by the users of e-banking. In spite of the benefits of e-banking, customers find some problems in e-banking. Technical illiteracy, lack of awareness about e-banking, absence of confidentiality, non-functioning ATMs, absence of legal support, ATMs limited withdrawals and absence of security are some of the common complaints regarding e-banking. **Aytekin et al., (2021)** opined that the learning algorithms, nanotechnologies, mobile technologies and internet had become inevitable in everyone's life in the present digital world. Usage of AI in retail and wholesale

trade had enables a better analysis of the customer requests and also development of effective strategies of marketing. But, there also certain risks which are inherent in such technological advancements. A lot of entrepreneurs and scientists possess the worry that AI may have negative effect over humanity if it is developed with safety. The purpose of the study was to explore the opinions of the customers regarding technology. The scholars also had examined the risks in using technology. They had examined the prior studies related with challenges regarding AI in trade. The authors had framed AITUTRPS (Artificial Intelligence Technologies Used in Trade Risk Perception Scale).

3. Problem Statement

The banking sector of India is seen to be getting transformed and aligned with the present environment of competitive business. The adoption technology in the banks involves certain limitations and drawbacks in the city of Bangalore. To be in general, financial services have become complex and requires heavy trust for consumers to adopt and use the technology. Continuous responses are being made by the banks towards the awareness and satisfaction of the customers. For creating and maintaining the bank customers and to be competitive, it is essential to provide the customers with best services through the manner of apprehending the issues confronted by customers in E-banking. Banks should have the knowledge regarding the way to establish their policies and also to enhance their services. Hence, it turns out to be essential to examine the perception of customers regarding the AI CHATBOTS services offered by the banks.

4. Need for the Study

The banking sector should have the capability of providing their services in a quick and rapid manner. They have got the responsibility of adapting the quick methods required for urgent services. Since, the current era has made a shift to digital techniques, the marginal transaction cost will also come down. This ultimately would prove to enhance the profitability of the banks.

5. Objectives of the Study

1. To become aware of the knowledge of the customers regarding the AI chatbots in banks.
2. To explore the factors which influence the customers to accept the AI chatbots in banks.
3. To investigate the satisfaction level of the customers with the AI Chatbots in banks.
4. To make an analysis of the challenges confronted by the customers while utilizing the AI chatbots of selected banks.

6. Hypothesis of the Study

H₀1: There is no relationship between awareness in using AI Chatbots and Consumer Perception.

H₀2: There is no relationship between Factors affecting AI Chatbots and Consumer Perception.

H₀3: There is no relationship between satisfaction in using AI Chatbots and Consumer Perception.

H₀4: There is no relationship between problem faced in using AI Chatbots and Consumer Perception.

7. Research Methodology

This study is based on descriptive in nature. The author has used primary as well secondary data. Primary data has been collected through questionnaire and secondary data has been collected through journals and websites. The respondents are the customers of ICICI Bank & AXIS Bank (private sector banks) and SBI and BOB (public sector banks). The number of respondents of the study is 117. Respondents have been selected through simple random

sampling. Regression has been used for analytical purposes. Scale for Awareness and Problem has been adopted from Latha & Mohanasundari (2017) and the scale for influencing factors and customer satisfaction has been adopted from Mohanasundari & Latha [2019].

8. Analysis and Interpretation

Table 1 Shows that Influence of Awareness on Consumer Perception

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	S.E	Beta		
(Constant)	1.059	0.233		4.548	0.001*
Online Bill Payment	0.206	0.047	0.256	4.400	0.001*
Fund Transfer	0.076	0.046	0.100	1.675	0.097 (NS)
Ticket Booking	0.046	0.052	0.061	0.892	0.375 (NS)
Shopping	0.263	0.049	0.410	5.315	0.001*
Lending	0.164	0.045	0.239	3.610	0.001*
Recharging	0.213	0.055	0.302	3.902	0.001*

a. Dependent variable: Consumer Perception (NS) Not Sig. * Significant

H₀₁: There is no relationship between awareness in using AI Chatbots and Consumer Perception.

Table 1 depicts that the multiple correlations [$R=0.818$], the multiple correlations squared [$R^2=0.669$], and the multiple correlations squared represent the amount of variance in the outcome that is accounted for by the predictors; in this case, awareness accounts for 66.9% of the variance in customer perception. However, because the multiple correlations squared is positive, the modified R^2 is appropriate. According to the summary table, our model's R^2 is sig. different from zero, $F=37.091$, $p=0.000$. As a result, H_{01} is rejected.

Table 2 Factors Influencing Customers towards Accepting AI CHATBOTS on Consumer Perception

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	S.E	Beta		
(Constant)	0.939	0.237		3.960	0.000
Make e-banking cheaper by reducing charges and fees	0.217	0.045	0.276	4.824	0.001*
Incentives to E-banking users	0.209	0.041	0.300	5.143	0.001*
Giving guarantee of security and privacy	0.081	0.052	0.099	1.559	0.122 (NS)
Contacting every customer personally	0.170	0.044	0.232	3.902	0.001*
Keep on reminding customers through letter	0.149	0.059	0.160	2.540	0.013*
Demonstrating on how to use E-banking services	0.064	0.052	0.077	1.217	0.226 (NS)
Intensive advertisement	0.498	0.056	0.525	8.934	0.001*
Giving the technological knowledge through seminars	0.036	0.045	0.041	0.817	0.416 (NS)
Easy Accessibility	0.140	0.036	0.242	3.913	0.001*

Dependent variable: Consumer Perception (NS) Not Sig. * Significant

H₀2: There is no relationship between Factors affecting AI Chatbots and Customer Perception

Table 2 shows that the multiple correlations [R=0.893], multiple correlations squared [R²=0.798], and multiple correlations squared represent the amount of variance in the outcome that is accounted for by the predictors; in this case, factors affecting AI Chatbots account for 79.8% of the variance in customer perception. However, the multiple correlation squared is positive, thus the corrected R² is appropriate. According to the summary table, our model's R² is significantly different from zero, F =46.879, p 0.000. As a result, H₀2 is rejected.

Table 3 Influence of Customer's level of Satisfaction on Consumer Perception

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	S.E	Beta		
(Constant)	1.678	0.248		6.762	0.001*
Effective functioning of ATM machines On-line Banking, Mobile Banking etc	0.534	0.104	0.628	5.136	0.001*
Communication of information through SMS Alert	0.456	0.091	0.558	4.992	0.001*
User Friendly Service Features	0.584	0.048	0.758	12.085	0.001*
Digitalization of all information	0.072	0.033	0.114	2.160	0.033*
Personalization of Services	0.491	0.430	0.368	1.143	0.255 (NS)
Time taken for redressing complaints / issues raised by customers	0.478	0.443	0.355	1.079	0.283 (NS)

Dependent variable: Consumer Perception (NS) Not Sig. * Significant

H₀₃: There is no relationship between Customer's level of Satisfaction and Customer Perception

Table 3 shows the Multiple Correlation [$R=0.839$], the Squared Multiple Correlation [$R^2=0.703$], and the amount of variance in the outcome that is accounted for by the predictors; in this case, Customer Satisfaction accounts for 70.3% of the variance in customer perception. However, because the multiple correlations squared is positive, the modified R^2 is appropriate. According to the summary table, our model's R^2 is significantly different from zero, $F = 43.467$, $p = 0.000$. As a result, H_{03} is rejected.

Table 4 Influence of Problems faced by Customers on Consumer Perception

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	S.E.	Beta		
(Constant)	0.927	0.178		5.201	0.001*
Lack Of Information About E-Banking	0.372	0.038	0.598	9.826	0.001*
Technical Illiteracy	0.033	0.037	0.047	0.899	0.371 (NS)
Limited Withdrawals In ATM	0.100	0.046	0.147	2.178	0.032*
Lack Of Security	0.170	0.048	0.233	3.509	0.001*
Lack Of Legal Support	0.273	0.063	0.304	4.336	0.001*
Non Functionality Of ATM	0.045	0.043	0.069	1.044	0.299 (NS)
Lack Of Confidentiality	0.086	0.058	0.115	1.470	0.144 (NS)

Dependent variable: Consumer Perception (NS) Not Sig. * Significant

H₀₄: There is no relationship between Problems faced by Customers and Customer Perception

Table 4 shows the Multiple Correlation [$R=0.889$], the Squared Multiple Correlation [$R^2=0.790$], and the amount of variance in the outcome that is accounted for by the predictors; in this case, 79% of the variance in customer perception is accounted for by Customer Problems. However, because the squared multiple correlations is positive, the modified R^2 is appropriate. According to the summary table, our model's R^2 is significantly different from zero, $F = 58.547$, $p = 0.000$. As a result, H_{04} is rejected.

9. Conclusion

The study has concluded that there exists a difference amidst the challenges faced by customers in adopting the AI Chatbots. Certain suggestions have also been given for overcoming the challenges. When the banking sector is considered, technology has given several ways to permit the sector to attain the maximum level of satisfaction of the customers. Implementation of the chatbots to the customers is one such way of the banks. AI Chatbots are considered to one of the effective strategies which, if adopted, would help the customers to get maximum satisfaction of the customers.

Multiple regression has been used to test all the hypotheses (H_{01} , H_{02} , H_{03} and H_{04}) of the study. It has been concluded that all hypotheses have been rejected. The findings explored that the independent variables (Awareness, Satisfaction, Problem Faced and Factors Influencing) affected the consumer perception in adopting AI Chatbot in Bangalore.

10. Suggestions

- Bankers have to provide facilities for solving the issues themselves in online modes.
- Bankers have to arrange for awareness programs and seminars for making the customers aware of adopting e-banking.
- Banks have to constantly introduce innovations for making sure that they remain competitive in the present-day technology-driven world.

11. Future Scope

It is observed that the banking sector in India is attaining transformation and is also exciting. Future studies can be done regarding the effectiveness of AI chatbots, customer attitudes towards AI chatbots and so on.

References

1. **Alboqami, Hassan. (2023)**, Factors Affecting Consumers Adoption of AI-Based Chatbots: The Role of Anthropomorphism. *American Journal of Industrial and Business Management*. 13. 195-214. 10.4236/ajibm.2023.134014.
2. **Aytekin, Pinar & Virlanuta, Florina & Güven, Hüseyin & Stanciu, Silvius & Bolakca, Ipek. (2021)**, Consumers' Perception of Risk Towards Artificial Intelligence Technologies Used in Trade: A Scale Development Study. *Amfiteatru Economic*. 23. 65-86. 10.24818/EA/2021/56/65.
3. **Latha and Mohanasundari (2018)**, Problems Faced by Customers in Adoption of E - Banking Services, *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, Volume 6 Issue VII, 758-761.
4. **Mohanasundari and Latha (2017)**, The Indian Scenario of the E-Banking and Future Prospectus. *International Journal of Science and Research (IJSR)*, Volume 6 Issue 6, June 2017, 423-425.