An Examination of Customer's Lack of Awareness Regarding Artificial Intelligence Supported Services in Banks.

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative technology in the banking sector, enabling banks to provide efficient, personalized, and secure services through digital banking platforms. Despite the increasing adoption of AI-supported services by banks, customer awareness regarding these technologies remains limited. The study focused on the five variables Lack of Trust and security concerns (NA 1), Preferred nitration with bank representatives (NA 2), AI supported services does not supports local languages (NA 3), Discomfort in using digital platforms (NA 4), Connectivity and Network issues (NA 5). The study included 105 bank customers in India, from both public and private sector banks. Chi-Square test, Descriptive Statistics, Frequencies methods were used for data analysis. The findings are expected to provide valuable insights for banks and policymakers in developing strategies to enhance customer awareness, encourage technology adoption, and maximize the benefits of artificial intelligence in the banking sector.

Keywords: Artificial Intelligence, Banking Services, Lack of Trust, Network issues, Discomfort.

INTRODUCTION

The banking sector has undergone a significant transformation with the integration of Artificial Intelligence (AI) into various banking operations and customer service functions. AI-supported services such as chatbots, virtual assistants, personalized financial recommendations, fraud detection systems, automated customer support, and digital banking platforms have enhanced the efficiency, accuracy, and accessibility of banking services. These technologies enable banks to provide faster services, improve customer experiences, reduce operational costs, and strengthen security measures.

In recent years, banks across the world have increasingly adopted AI-driven solutions to meet the growing demand for digital and convenient banking services. In India, both public and private sector banks have introduced AI-enabled applications to streamline customer interactions and improve service delivery. The rapid growth of digital banking, supported by advancements in machine learning, natural language processing, and data analytics, has further accelerated the use of AI in the banking industry.

Customer awareness plays a crucial role in the successful adoption and utilization of innovative banking technologies. A higher level of awareness can enhance customer confidence, increase usage intentions, and improve overall satisfaction with banking services. Conversely, a lack of awareness may lead to resistance, misconceptions, and underutilization of AI-supported banking facilities.

REVIEW OF LITERATURE

Pandey and Shakya (2024) conducted a study on customer awareness of AI-based banking services. The findings revealed that although customers were familiar with digital banking platforms, their awareness of advanced AI applications such as chatbots and virtual assistants remained limited. The study emphasized the need for customer education to improve AI adoption.

Shah (2024) investigated the gap between the implementation of AI technologies and customer awareness in the Indian banking sector. The study found that banks have made significant investments in AI-based services; however, many customers remain unaware of their availability and benefits, resulting in lower utilization rates.

Sharma and Singh (2024) examined the determinants of AI adoption in banking services. The results indicated that perceived usefulness, trust, and technological knowledge significantly influence customers' willingness to use AI-supported banking services. Lack of awareness was identified as a major barrier to adoption.

Roongta and Roongta (2025) analyzed customer perspectives and adoption drivers of AI in Indian banking. The study highlighted that awareness, ease of use, and trust positively influence customer acceptance of AI-enabled banking services.

Priya et al. (2026) studied customer awareness of artificial intelligence technology in banking services. The findings revealed that awareness levels varied across demographic groups and that language barriers and limited digital literacy negatively affected awareness and usage.

Tiwari, Tiwari, and Gupta (2021) examined the role of awareness, risk perception, and trust in technology adoption. The study concluded that customer awareness significantly influences adoption intentions, while perceived risk and security concerns discourage usage.

Hanif (2021) explored the concept of explainable artificial intelligence in banking and financial services. The study emphasized that transparency and explainability are essential for building customer trust and improving acceptance of AI-supported services.

Bach et al. (2023) conducted a systematic review of user trust in AI-enabled systems. The study identified trust, perceived reliability, transparency, and awareness as critical factors influencing the acceptance of AI technologies across industries, including banking.

Apoorva and Kansal (2026) investigated customer traits and platform functionalities affecting AI-based service adoption in the banking, financial services, and insurance sector. The findings showed that customer awareness and familiarity with AI technologies significantly impact adoption behavior.

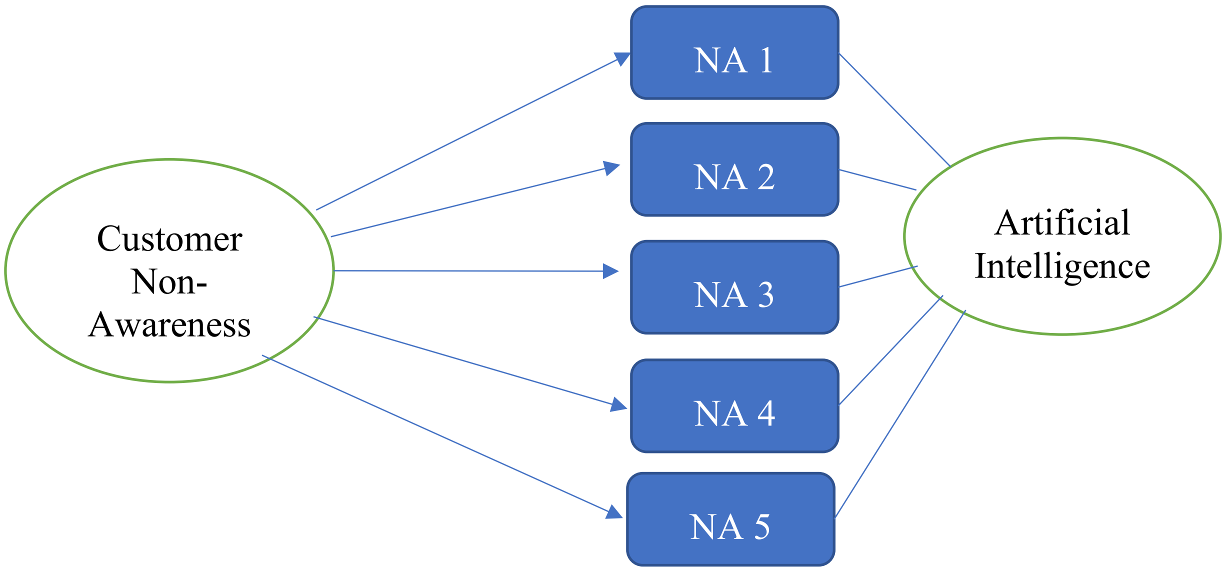
Shaikh et al. (2024) examined customer satisfaction with AI-supported banking services in India. The study found that customers who were aware of AI applications reported higher levels of satisfaction, while lack of awareness and understanding reduced the perceived effectiveness of AI-enabled services.

OBJECTIVE OF THE STUDY

To examine the Customer Lack of Awareness regarding the use of Artificial Intelligence Supported Services in Banks.

RESEARCH METHODOLOGY

Using both qualitative and quantitative methods, the study employs a descriptive research design. The study included 105 bank customers in India, from both public and private sector banks. Data were gathered through Google Forms, face-to-face interviews, and telephonic surveys. Haryana (Ambala, Panchkula, Karnal, Rohtak, Gurugram, Panipat) were taken for data collection. Convenience sampling technique were used in the study for data collection. Chi-Square test, Descriptive Statistics, Frequencies methods were used for data analysis. Five variable were taken for the study: Lack of Trust and security concerns (NA 1), Preferred nitration with bank representatives (NA 2), AI supported services does not supports local languages (NA 3), Discomfort in using digital platforms (NA 4), Connectivity and Network issues (NA 5).



DATA ANALYSIS

Descriptive Statistics

Descriptive statistics shows a profile of the respondents selected from public and private banks located in Ambala, Panchkula, Karnal, Rohtak, Gurugram, Panipat. The researcher collected information like Gender, marital status, occupation, age, education, annual income.

Respondents Profile

Respondents profile located in Ambala, Panchkula, Karnal, Rohtak, Gurugram, Panipat**.**

1.Marital Status	**Frequency**	**Percentage (%)**
Married	3	2.9%
Unmarried	102	97.1%
N=	105	100%
2. Gender	**Frequency**	**Percentage (%)**

Male	52	49.5%
Female	53	50.5%
N=	105	100%
3. Age	**Frequency**	**Percentage (%)**
18 to 25 years	88	83.8%
26 to 35 years	17	16.2%
36 to 45 years	-	-
46 to 55 years	-	-
56 Years and above	-	-
N=	105	100%
4. Occupation	**Frequency**	**Percentage (%)**
Business	2	1.9%
Profession	47	44.8%
Services	56	53.3%
N=	105	100%
5. Annual Income	**Frequency**	**Percentage (%)**
>3 lakhs	91	86.7%
3-6 lakhs	8	7.6%
6-10 lakhs	6	5.7%
N=	105	100%
6. Place of Residence	**Frequency**	**Percentage (%)**
Ambala	3	2.9%
Panchkula	26	24.8%
Karnal	25	23.8%
Rohtak	19	18.1%
Gurugram	9	8.6%
Panipat	23	21.9%
N=	105	100%
7. Customer Preference	**Frequency**	**Percentage (%)**
Private sector banks	31	29.5%
Public sector banks	74	70.5%
N=	105	100%

The demographic profile of 105 respondents shows that most were unmarried (97.1%) and belonged to the 18–25 years age group (83.8%). The gender distribution was nearly equal, with 50.5% females and 49.5% males. Most respondents were employed in the service sector (53.3%) or were professionals (44.8%). A majority (86.7%) reported an annual income of up to ₹3 lakhs. Respondents were drawn from various cities of Haryana, with the highest representation from Panchkula (24.8%) and Karnal (23.8%). Furthermore, 70.5% preferred public sector banks, while 29.5% preferred private sector banks.

Chi-Square Analysis – Customer Non-Awareness regarding the use of AI-Supported Services in Banks Services (N=105)

Table 1: Customer Non-Awareness regarding the use of AI-Supported Services

Variables	**Chi-Square**	**df**	**p-value**	**Significance**
Lack of Trust and securi concerns. (NA 1)	29.143	4	< 0.001	Significant
Preferred nitration with ba representatives. (NA 2)	75.048	4	<0.001	Significant
AI supported services do not supports local language (NA 3)	81.238	4	<0.001	Significant
Discomfort in using digi platforms. (NA 4)	15.37	4	<0.001	Significant
Connectivity and Netwo issues. (NA 5)	27.238	4	0.011	Constant Variabl

The table shows the Customer Non-Awareness regarding the use of AI-Supported Services in banks by 105 respondents.

- The Chi-Square test results indicate that all the factors affecting customers' non-awareness of AI-supported banking services are statistically significant, as their p-values are less than 0.05. The factor "AI-supported services do not support local languages" (NA3) recorded the highest Chi-Square value ($\chi^2 = 81.238$), indicating that it is a major concern among respondents. Similarly, "Preference for interaction with bank representatives" (NA2) also showed a high Chi-Square value ($\chi^2 = 75.048$), suggesting that many customers still prefer human assistance over AI-based services. "Lack of trust and security concerns" (NA1) was another significant factor ($\chi^2 = 29.143$), reflecting customers' hesitation in relying on AI technologies. "Connectivity and network issues" (NA5) also significantly influenced customer awareness ($\chi^2 = 27.238$, $p = 0.011$). Furthermore, "Discomfort in using digital platforms" (NA4) was found to be a significant barrier. Overall, the results show that language limitations, preference for personal interaction, trust and security concerns, digital discomfort, and network issues are important factors contributing to customers' lack of awareness and adoption of AI-supported banking services.

Suggestions

- Banks should adopt awareness programs to increase the customer knowledge regarding AI Supported services.
- Banks should enhance security measures to build Customer trust in AI services.
- Banks should improve technical support to enhance the smooth use of AI Supported services.
- Regular Customer feedback must be collected to identify barriers.
- Banks should maintain a balance between AI-driven services and human assistance to address customers who prefer personal interaction with bank representatives.

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