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A Survey on the Safety Perceptions of Gen-Z Regarding AI Chatboxes in Selected Indian Banks

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Abstract: *The rapid integration of Artificial Intelligence (AI)–driven chatboxes in the banking sector has transformed customer interaction, service delivery, and operational efficiency. However, concerns regarding data privacy, cybersecurity, and trust remain critical, particularly among Generation Z (Gen-Z), who are both frequent users of digital banking and highly aware of technological risks. This study presents a survey-based analysis of safety perceptions of Gen-Z customers regarding AI chatboxes used by select Indian banks. The research explores key dimensions such as data security, transparency, reliability, response accuracy, and user trust.*

Primary data is collected through structured questionnaires targeting Gen-Z respondents, while secondary data is drawn from reports, academic literature, and banking policies. The findings indicate that although Gen-Z users appreciate the convenience and speed of AI chatboxes, they exhibit moderate levels of concern regarding misuse of personal data, lack of human oversight, and vulnerability to cyber threats. Trust in AI chatboxes is found to be influenced by factors such as prior experience, brand reputation of banks, and awareness of data protection measures.

The study concludes that while AI chatboxes are widely accepted among Gen-Z, enhancing transparency, strengthening data protection mechanisms, and improving user awareness are essential to building long-term trust. The research provides valuable insights for banks to refine their AI systems and align them with user expectations and safety concerns..

Keywords: Artificial Intelligence, AI Chatboxes, Gen-Z, Banking Sector, Data Security, Customer Trust, Cybersecurity, Digital Banking, User Perception, India

I. INTRODUCTION

1.1 Modern Banking

Banking in India looks very different from what it did even a decade ago. The image of customers standing in branch queues for deposits or passbook updates has largely given way to mobile apps, instant transfers, and round-the-clock digital services. The expansion of the Unified Payments Interface (UPI) has been central to this shift — it has made financial transactions instantaneous and available at any hour, fundamentally changing what customers expect from their banks. Government support, regulatory direction, and rapid technological development have all pushed the sector in this direction, turning banking from a branch-bound activity into an always-on service. UPI now accounts for a very large share of retail digital transactions in India, a fact that recent official communication has made explicit.

This shift has also changed what "good banking" means. Earlier, efficiency was measured by how well a branch managed paperwork, interpersonal interactions, and counter service. Today, customers judge banks by how well their apps work, how fast transactions process, how secure the platform feels, and how effectively problems get resolved online. Banks are expected to deliver smooth, low-friction digital experiences — and because competition in this space is intense, they are constantly updating their platforms and deploying intelligent systems to handle large-scale customer interactions without compromising reliability.

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Modern banking in India, then, involves two simultaneous movements: pushing innovation forward while managing the risks that come with it. Customers want speed and accessibility, but they also need to feel that the systems they use are safe and dependable. That tension becomes especially significant when technologies like artificial intelligence are introduced into customer-facing banking functions.

Key characteristics of modern banking include:

- 24/7 accessibility through mobile apps, websites, and virtual service channels
- Instant transactions enabled by UPI, IMPS, and related payment systems
- Reduced dependence on physical branches for routine banking services
- Greater personalization through analytics and customer data processing
- Higher focus on cybersecurity and fraud prevention across digital ecosystems

1.2 Integration of AI in the Workplace

Artificial intelligence has become one of the most influential forces reshaping how modern workplaces function. Across industries, it is being used to automate repetitive work, support decision-making, extract insights from data, and improve service delivery. In banking especially, where the volume of transactions, customer queries, documentation, and risk-sensitive processes is enormous, AI integration has been particularly significant. It has moved well beyond back-end computation — AI now operates at the front line, directly interacting with customers and supporting the employees who serve them.

What AI has changed, practically speaking, is how banks define and measure productivity. Tasks that previously required staff time — answering standard questions, sorting information, identifying patterns, routing requests — can now be handled faster and at greater scale by AI systems. This does not always mean replacing employees. More often, it means freeing up human staff to focus on complex, judgment-intensive, or relationship-based work while AI handles the more repetitive volume.

There is also a reputational dimension. When customers interact with a bank's chatbot, they are indirectly forming an opinion about the bank itself. A fast, accurate chatbot signals innovation and competence. A confusing or error-prone one raises doubts about the institution's technological reliability. For Gen Z customers, who are used to high-quality digital interfaces and have sharp expectations around speed, personalization, and safety, the bar is particularly high.

Important dimensions of AI integration in the workplace include:

- Automation of routine tasks such as answering FAQs and routing service requests
- Employee support through faster information retrieval and workflow assistance
- Improved scalability during peak customer interaction periods
- Data-based personalization for better service recommendations
- Need for governance around privacy, accountability, and error management

AI integration in banking workplaces is not simply a technical upgrade — it is an organizational transition that affects work culture, staff roles, service systems, and customer trust. AI chatbots are a direct, customer-visible product of that transition, which makes them highly relevant for studying how Gen Z users perceive safety in digitally mediated banking.

1.3 Gen Z and Banking Trends

Generation Z — broadly, those born in the late 1990s through the early 2010s — has grown up surrounded by smartphones, social media, and instant digital access. Their relationship with banking reflects that upbringing. For them, digital convenience is not a feature; it is a baseline expectation. Mobile-first banking, app-based transactions, real-time alerts, self-service tools, and simplified interfaces are what they consider normal. In India, this aligns well with the rise of UPI-led payment culture, which has made instant, app-centric transactions part of everyday life for younger users.

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Gen Z evaluates banking platforms the way they evaluate any digital product: by interface design, response speed, ease of navigation, and perceived reliability. Branch proximity or face-to-face service matters less to many young users than whether the app works smoothly and quickly. Research on digital banking adoption among Gen Z has identified factors like effort expectancy, performance expectancy, and cybersecurity concerns as meaningful drivers of usage behavior. In other words, young users are comfortable with technology — but they are not uncritical about it.

Socially and economically, Gen Z in India is at a transitional stage. Many are entering higher education, first employment, entrepreneurship, and digital commerce for the first time. Their banking needs — peer-to-peer transfers, bill payments, recharges, savings tools, quick customer support — require platforms that respond fast and work reliably. They are less tolerant of delays and more willing to abandon platforms that feel slow or untrustworthy. Banks have responded with chatbot interfaces, personalized dashboards, and app notifications.

Major Gen Z banking trends include:

- Preference for mobile-first and app-based banking
- High reliance on digital payments and instant transfers
- Greater openness to AI-enabled interfaces compared to older generations
- Strong expectation of convenience and personalization
- Simultaneous concern about cybersecurity, fraud, and privacy

Gen Z is a strategically important segment for banks adopting AI chatbots. Their behavior is shaped by digital familiarity, but their loyalty depends heavily on whether the experience feels safe, efficient, and honest.

1.4 Gen Z and Banking Habits / Operations Usage

For Gen Z, banking is not a formal or occasional activity — it is woven into everyday life. Many of them encountered banking in an already digitized environment, so the mobile screen, not the branch counter, is where their banking experience begins. Balance checks, fund transfers, QR payments, bill settlements, mini statements, service requests, and complaint registration all happen through apps or online portals. India's digital payments infrastructure — especially the scale of UPI usage — has reinforced this pattern by making low-friction digital transactions a part of daily routine rather than a deliberate financial act.

Within that digital environment, Gen Z gravitates toward features that reduce effort: biometric login, one-tap payments, quick beneficiary addition, chatbot guidance, instant notifications. They value functionality over formal process, which means they are far more likely to use self-service tools than to call customer care or visit a branch. They are also comfortable exploring app features on their own, which makes digital help systems and AI chat interfaces particularly relevant to their usage patterns. But ease of operation alone does not guarantee acceptance. If a system feels insecure, demands excessive personal information, or gives vague responses, users may withdraw trust even while continuing to use the app for basic tasks. Research on Gen Z digital banking adoption has specifically identified cybersecurity concerns as a significant moderating factor in usage intentions — not just a background worry.

That said, Gen Z's digital confidence does not mean digital carelessness. They are alert to fraud messages, phishing attempts, fake apps, and suspicious prompts. India's regulatory and public discourse has increasingly emphasized safe digital practices — the RBI's financial literacy efforts and its warnings around safe digital banking reflect the reality that growing adoption creates growing exposure to abuse. Operational convenience and institutional safeguards need to move together.

Common Gen Z banking operations include:

- Checking account balance and reviewing transaction history
- Using UPI for peer-to-peer and merchant payments
- Paying bills, recharges, and subscriptions through banking apps
- Seeking in-app support for service queries and guidance
- Managing cards, account limits, and settings digitally

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II. LITERATURE REVIEW

2.1 Review of 10 Research Papers

1. Eren (2021) Eren looked at what drives customer satisfaction when people use bank chatbots. The key finding was that chatbot performance and usefulness both had a strong positive effect on how satisfied customers felt. Trust also mattered — specifically, trust in the chatbot itself and in the bank behind it. Customers responded more favorably to banking chatbots when they saw the system as competent, dependable, and genuinely helpful for resolving service issues.

2. Hameed and Nigam (2023) This study examined how Gen Z in India perceives AI-enabled internet banking. Because Gen Z has grown up with digital technology, they were generally comfortable using AI-based banking platforms. But comfort did not mean unconditional acceptance — the study found that low perceived security reduced trust and weakened users' intention to continue using these services. The conclusion is straightforward: even for a digitally familiar generation, safety and trust are non-negotiable conditions for wider AI adoption in banking.

3. Bansal, Pandey, Goel, and Sharma (2024) Using an ISM and MICMAC approach, Bansal and colleagues mapped out the barriers preventing banking chatbot adoption in India. Security concerns, privacy concerns, lack of trust, weak IT infrastructure, and limited organizational adaptability all emerged as significant obstacles. What the study makes clear is that technology readiness alone does not drive adoption — banks also need to address the structural and psychological barriers that users bring to these interactions.

4. Shaikh, Khan, and Faisal (2023) Conducted among banking customers in the Bombay region, this study identified the factors that shape customers' intention to use chatbots. Convenience, efficiency, trust, privacy, and personalized experience all had significant effects. Information security and perceived usefulness were particularly important. The broader finding is that chatbot systems which are safe, user-friendly, and thoughtfully designed are more likely to gain acceptance among banking customers.

5. Govindaraj, Krishnan, and Lawrence (2023) This study examined what drives customers to adopt chatbots in banking. Perceived usefulness, trust, and ease of use all significantly influenced willingness to adopt. Beyond those core factors, interface quality, content quality, and security satisfaction also shaped adoption decisions. The pattern that emerges is consistent: customers engage more readily with chatbots when they find the system simple to use, practically useful, and safe.

6. Sivaprakkash et al. (2025) Based on an empirical study in South India, this paper found that perceived usefulness and perceived ease of use directly drive behavioral intention to use bank chatbots. Perceived trust, awareness of the service, and compatibility with users' lifestyles had indirect but substantial effects on intention. Among all the factors tested, ease of use came out as the most critical — suggesting that customers are more willing to engage with banking chatbots when those systems are simple, clearly communicated, and fit naturally into how they already operate.

7. Kurniawan et al. (2023) Kurniawan and colleagues studied what influences Gen Z customers' use of digital banking more broadly. Performance expectancy, effort expectancy, and trust all significantly shaped attitude toward digital banking, while social influence and habit had strong effects on behavioral intention. Behavioral intention, in turn, strongly predicted actual usage. The study's key point is that Gen Z adoption of digital banking is not just about whether the system is useful or trusted — regular habit formation and the social context in which young people use technology also matter considerably.

8. Gupta and Sharma (2019) Gupta and Sharma investigated Indian banking customers' attitudes toward chatbots and found a positive relationship between customers' attitudes and factors like awareness of the technology, speed of service, and lower perceived risk around data handling. When customers believed a chatbot would save them time and was unlikely to mishandle their information, their attitude toward using it became more favorable. The study's conclusion is that convenience and a sense of safety work together — neither alone is enough to produce positive attitudes toward banking chatbots.

9. Shankar (2016) Shankar's study on mobile banking adoption in India found that perceived usefulness had the strongest influence on whether users adopted the service, while social influence was the least important factor.

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Compatibility with users' daily lifestyles also had a positive effect. Indian users were more likely to take up digital banking services when those services felt practically useful and suited to how they already lived. Although the study predates AI chatbots specifically, its findings carry clear relevance — chatbots in banking are also evaluated on whether they are genuinely useful and a natural fit with users' routines.

2.2 Research Gap

Existing literature on AI chatbots in banking shows that chatbot adoption is influenced by several important factors such as perceived usefulness, ease of use, convenience, trust, privacy, security, interface quality, service speed, and customer satisfaction. Most reviewed studies agree that customers are more likely to accept banking chatbots when they find them helpful, simple, reliable, and safe. For example, Eren found that chatbot performance, usefulness, and trust in both the chatbot and the bank strongly influence customer satisfaction. Similarly, studies by Shaikh et al. and Govindaraj et al. highlight that trust, privacy, perceived usefulness, content quality, and security satisfaction affect customers' intention to use banking chatbots. The literature also shows that Indian Gen-Z users are generally comfortable with AI-enabled banking platforms, but their trust becomes weak when they perceive security risks or privacy concerns.

However, after reviewing the existing studies, it becomes clear that there are still several research gaps, especially in relation to safety perceptions of Gen-Z regarding AI chatbots in selected Indian banks. Most of the available studies focus on broader chatbot adoption, customer satisfaction, digital banking acceptance, or behavioral intention. They explain why customers use chatbots, but they do not deeply examine how young users, particularly Gen-Z, perceive the safety of AI chatbots in banking. Safety in this context includes data privacy, fear of fraud, risk of wrong financial advice, misuse of personal banking information, authentication concerns, and confidence in the bank's AI system. These issues are highly relevant because banking involves sensitive financial and personal data.

One major gap is that many studies discuss trust and security as general factors, but very few focus specifically on safety perception as the central theme. Trust is often treated as one variable among many, alongside usefulness, ease of use, convenience, and awareness. But for banking chatbots, safety is not just one supporting factor; it can become the deciding factor for whether Gen-Z customers will actually use or avoid chatbot services. A chatbot may be fast and convenient, but if users fear that their data may be leaked, their account may be misused, or the chatbot may give incorrect responses, they may hesitate to use it for serious banking tasks.

Another important research gap is related to the specific demographic focus on Gen-Z in India. Some studies have examined Gen-Z and AI-enabled banking, while others have studied Indian banking customers in general. But there is limited research that combines all three dimensions together: Gen-Z, AI chatbots, and safety perception in Indian banking. Gen-Z is often described as digitally confident and technology-friendly, yet this does not automatically mean that they fully trust AI systems in financial services. Their behavior may be different from older generations because they are more exposed to digital fraud, online scams, data breaches, and social media discussions about AI risks. Therefore, their safety concerns may be more complex than simple "technology acceptance."

The literature also shows a gap in terms of bank-specific chatbot experience. Many previous studies examine banking chatbots in a general way, without focusing on selected Indian banks. In reality, users' perceptions may differ depending on the bank's reputation, digital infrastructure, chatbot design, response accuracy, complaint resolution process, and security communication. A chatbot offered by a trusted public sector bank may be perceived differently from one offered by a private sector bank or a new-age digital banking platform. Therefore, studying selected Indian banks can provide more practical and institution-specific insights.

Key research gaps identified from the literature are:

• Limited focus on safety perception: Existing studies discuss security, privacy, and trust, but usually as adoption factors rather than as the main research focus.

• Insufficient Gen-Z-specific analysis: Research on Indian banking customers often includes all age groups, while Gen-Z's unique digital habits, risk awareness, and expectations remain underexplored.

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• Lack of chatbot-specific safety studies: Several studies focus on mobile banking, internet banking, or digital banking in general, but fewer studies directly examine AI chatbot safety in banking.
• Limited Indian banking context: Although some Indian studies exist, there is still a need for more research focused on selected Indian banks and their chatbot services.
• Gap between comfort and confidence: Gen-Z may be comfortable using AI technology, but the literature does not sufficiently explain whether this comfort translates into confidence in chatbot safety.
• Less attention to perceived risk types: Prior studies do not deeply separate different safety concerns such as data misuse, financial fraud, wrong information, lack of human support, authentication failure, or privacy invasion.
• Need for updated research: AI chatbot technology is changing quickly, especially after the rise of generative AI. Older studies on mobile banking or basic chatbots may not fully capture present-day safety concerns.

Another important gap is the limited exploration of psychological and emotional safety. Banking is not only a technical service; it involves confidence, reassurance, and accountability. Gen-Z users may ask: Who is responsible if the chatbot gives wrong information? Can the chatbot access my personal banking data? Is my conversation being stored? Can a human agent take over when needed? These questions show that safety perception includes both technical security and emotional assurance. Existing literature gives more attention to functional benefits like convenience, speed, ease of use, and efficiency, but less attention to user anxiety, fear, hesitation, and perceived control.

Thus, the present study is needed because it can fill the gap by specifically examining how Gen-Z perceives the safety of AI chatbots used by selected Indian banks. It can contribute to the existing body of knowledge by moving beyond general adoption studies and focusing on the safety-related beliefs, doubts, expectations, and concerns of young banking customers. This research can also help banks design chatbot services that are not only efficient and user-friendly, but also transparent, secure, trustworthy, and suitable for Gen-Z users.

III. RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is an important chapter of any research study because it explains the complete procedure followed by the researcher for collecting, organizing, analyzing, and interpreting data. The present study is titled "A Survey on the Safety Perceptions of Gen-Z Regarding AI Chatboxes/Chatbots in Selected Indian Banks." The main purpose of this chapter is to describe how the research has been conducted and how the survey questionnaire has been used to collect responses from Gen-Z banking users.

The present research focuses on the safety perception of Gen-Z users toward AI chatboxes used by selected Indian banks. In recent years, banks have started using AI-based chatboxes or chatbots for customer service, complaint handling, product information, account-related help, and transaction-related support. The survey questionnaire prepared for this study includes questions related to awareness, usage, frequency of use, purpose of use, ease of use, time-saving benefit, trust, data safety, fear of data misuse, accuracy, preference over human customer service, problems faced, future usage intention, overall safety perception, and recommendation intention. These questions directly help in understanding how Gen-Z users perceive the safety and reliability of AI chatboxes in banking services.

The chapter is important because it gives clarity about the foundation of the study. It explains:
• What type of research design has been used.
• From where the data has been collected.
• Which tool has been used for collecting responses.
• Who the respondents are.
• How the sample has been selected.
• How the data will be analyzed.
• What ethical practices have been followed.

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The research methodology adopted in this study is suitable because the topic is perception-based. Safety perception cannot be measured only through technical facts; it must be understood through the opinions, experiences, concerns, and attitudes of actual users.

3.2 Research Design

Research design refers to the overall plan or framework used by the researcher to conduct the study. It guides the researcher in collecting relevant data, selecting respondents, analyzing results, and drawing conclusions. For the present study, the researcher has used a descriptive research design. This design is suitable because the study aims to describe the perceptions, opinions, and attitudes of Gen-Z users regarding the safety of AI chatboxes in selected Indian banks.

Descriptive research is used when the researcher wants to understand "what exists" in a particular situation. In this study, the researcher does not manipulate any variable or create an experimental situation. Instead, the study observes and describes the existing awareness, usage, trust, safety concerns, and future acceptance of AI chatboxes among Gen-Z banking users.

The research design is appropriate because the survey questionnaire includes questions that measure different dimensions of user perception. For example, some questions measure awareness and usage, such as whether respondents are aware that banks use AI chatboxes and whether they have used such services. Other questions measure trust and safety, such as whether respondents feel their personal and financial data is safe, whether they are concerned about data misuse or leakage, and whether they consider bank AI chatboxes overall safe.

The research design includes the following features:

- Type of research: Descriptive research.
- Nature of study: Quantitative with descriptive interpretation.
- Research approach: Survey-based approach.
- Data source: Primary and secondary data.
- Research instrument: Structured questionnaire.
- Target group: Gen-Z banking users.
- Area of focus: Selected Indian banks using AI chatboxes/chatbots.

The descriptive design helps the researcher to identify patterns in responses. For example, if many respondents agree that chatboxes save time, it shows that convenience is a positive factor. On the other hand, if many respondents are concerned about data misuse, it shows that privacy and security are major barriers.

3.3 Sources of Data

Data is the foundation of any research study. For this research, both primary data and secondary data have been used. The use of both sources helps in making the study more complete and meaningful. Primary data provides direct information from respondents, while secondary data provides theoretical and background support from existing studies and published sources.

Primary Data

Primary data refers to the first-hand data collected directly from respondents for the specific purpose of the study. In this research, primary data has been collected through a structured survey questionnaire prepared for Gen-Z banking users. The questionnaire includes 15 questions related to the use and safety perception of AI chatboxes in banking. These questions cover awareness, usage, frequency, purpose, ease of use, time-saving benefit, trust, data safety, privacy concerns, accuracy, preference for chatbot service, problems faced, future usage intention, overall safety perception, and recommendation intention.

Primary data is important because it reflects the actual views and experiences of the target respondents. Since the study focuses on Gen-Z users, their direct responses are necessary to understand their perception of AI chatboxes in banking.

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Secondary Data

Secondary data refers to data that has already been collected and published by others. In this study, secondary data has been collected from research papers, journals, articles, reports, websites, and previous studies related to AI chatbots, digital banking, customer trust, privacy, cybersecurity, and Gen-Z behavior.

Secondary data helps in:

- Understanding the background of AI chatboxes in banking.
- Preparing the literature review.
- Identifying the research gap.
- Supporting the findings of the study.
- Comparing present findings with previous studies.

3.4 Data Collection Tools

The main data collection tool used in this study is a structured questionnaire. A questionnaire is a commonly used tool in survey research because it allows the researcher to collect responses from a large number of people in a systematic and organized manner. Since the present study is based on the safety perceptions of Gen-Z users, the questionnaire method is suitable because it helps in collecting opinions, experiences, and attitudes directly from the target respondents.

The questionnaire prepared for this study contains 15 questions. These questions are mostly closed-ended, which means respondents are required to select one option from the given choices. Closed-ended questions are useful because they make the data easier to classify, compare, and analyze. The questionnaire includes Yes/No questions, multiple-choice questions, frequency-based questions, and Likert-scale questions.

The questionnaire covers the following areas:

- Awareness of AI chatboxes in banking.
- Experience of using bank AI chatboxes.
- Frequency of chatbot usage.
- Main purpose of using chatboxes.
- Ease of using bank AI chatboxes.
- Time-saving benefit compared to branch visits or customer care calls.
- Trust in chatbot responses.
- Perceived safety of personal and financial data.

The questionnaire is designed in simple language so that respondents can easily understand the questions and answer honestly. Since the respondents belong to Gen-Z, an online questionnaire method is also suitable because this generation is comfortable with digital platforms and online forms.

The questionnaire also helps in connecting data collection with research objectives. For example, questions on data safety, trust, data leakage, and overall safety directly measure the safety perception of respondents. Questions on ease of use and time-saving measure the usefulness of AI chatboxes. Questions on recommendation and future usage show acceptance potential.

3.5 Sampling Design

Sampling design refers to the plan followed by the researcher to select a specific group of respondents from the total population. It is not always possible to study the entire population because of limitations of time, cost, and accessibility. Therefore, a sample is selected to represent the larger population. In the present study, the sampling design focuses on selecting Gen-Z banking users who are aware of or have experience with digital banking services and AI chatboxes.

The sampling design is important because the quality of research findings depends on the suitability of the selected respondents. Since the topic is related to safety perception regarding AI chatboxes in selected Indian banks, the respondents should belong to the Gen-Z age group and should have some connection with banking services. Even if

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some respondents have not used bank AI chatboxes, their awareness and perception are still useful for understanding acceptance and hesitation.

The sampling design of this study includes three major components:

• Population or universe.
• Sampling method.
• Sample size.

The study uses a non-probability sampling design because respondents are selected based on accessibility and relevance to the topic. The researcher focuses on Gen-Z individuals who use mobile banking, internet banking, or banking apps. This group is appropriate because they are more likely to interact with AI-based digital services.

The survey questionnaire includes questions that are suitable for both users and non-users of AI chatboxes. For example, questions related to awareness, data safety, trust, and recommendation can be answered by respondents even if they have limited usage experience. At the same time, questions related to frequency, purpose, and problems faced are especially useful for respondents who have used bank AI chatboxes.

The sampling design is suitable for an academic survey because it allows the researcher to collect practical data within limited time and resources. Although the results may not represent the entire Indian Gen-Z population, they can still provide useful insights into the safety perception, trust level, and concerns of young banking customers regarding AI chatboxes.

3.5.1 Population / Universe

Population or universe refers to the entire group of people from whom the researcher wants to collect information or about whom the researcher wants to draw conclusions. In the present study, the population consists of Gen-Z banking users in India. These are young individuals who use banking services and are either aware of or exposed to digital banking channels such as mobile banking applications, internet banking, UPI-based banking services, and customer service chatboxes.

Gen-Z generally includes individuals born from the late 1990s to the early 2010s. They are considered digitally active because they have grown up with smartphones, internet platforms, mobile applications, social media, digital payments, and AI-based tools. Because of this digital exposure, Gen-Z is more likely to interact with bank AI chatboxes than many older customer groups. However, being digitally skilled does not always mean they fully trust AI systems, especially in banking where financial data, identity details, and transaction information are involved.

The population is relevant to the study because Gen-Z users represent an important customer segment for banks. Banks are increasingly focusing on digital services, and AI chatboxes are becoming a part of customer support systems.

The questionnaire used in this study is designed specifically to collect the opinions of this population. It asks whether respondents are aware of AI chatboxes in banking, whether they have used such services, how often they use them, and whether they feel their personal and financial data is safe. It also asks whether they are concerned about data misuse or leakage and whether they would continue using chatboxes if security features improve.

The population of the study can be described as follows:

• Geographical universe: India.
• Target universe: Gen-Z banking users.
• Service context: Selected Indian banks.
• Technology context: AI chatboxes/chatbots used for banking customer service.
• User category: Digital banking users, including both chatbot users and non-users.

3.5.2 Sampling Method

The sampling method used in this study is convenience sampling. Convenience sampling is a non-probability sampling method in which respondents are selected based on their availability, accessibility, and willingness to participate in the

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study. This method is commonly used in academic research where the researcher has limited time, resources, and access to the full population.

In this study, convenience sampling is suitable because the target respondents are Gen-Z banking users. They can be reached easily through online platforms, colleges, peer groups, social media, and digital communication channels. Since the study is based on a questionnaire, the researcher can circulate the survey form among respondents who belong to the Gen-Z age group and use banking services.

The main reason for selecting convenience sampling is that the research is perception-based. The study does not require highly technical banking data; it requires opinions and experiences of young banking users. Therefore, respondents who are easily available and relevant to the topic can provide useful information.

The features of the sampling method are:

- It is a non-probability sampling method.
- Respondents are selected according to convenience.
- The sample includes Gen-Z banking users.
- The method is practical for online survey collection.
- It saves time and cost.
- It is suitable for academic and exploratory research.

Convenience sampling also allows the researcher to include both users and non-users of AI chatboxes. This is important because the survey includes questions on awareness as well as actual usage. For example, some respondents may know that banks use AI chatboxes but may not have used them personally. Their opinions are still valuable because safety perception also affects future adoption. Thus, convenience sampling is a suitable method for this study because it allows the researcher to collect meaningful responses from Gen-Z banking users regarding AI chatbox safety in selected Indian banks.

3.5.3 Sample Size

Sample size refers to the number of respondents selected from the total population for the purpose of data collection. In the present study, the sample size consists of Gen-Z respondents who are banking users and who can share their opinions regarding AI chatboxes used by selected Indian banks. The sample size is an important part of the research because it affects the quality and reliability of the findings.

For this study, the sample size may be taken as 100 respondents. This sample size is suitable for an academic survey because it is large enough to understand general trends and patterns in the responses. It also allows the researcher to calculate percentages and present the findings clearly through tables, charts, and interpretations.

The sample includes Gen-Z respondents who may have different levels of awareness and usage experience. Some respondents may have used AI chatboxes frequently, some may have used them sometimes, and some may never have used them. This variation is useful because the study does not only focus on actual usage; it also focuses on safety perception, trust, and concern. Even non-users may have opinions about whether AI chatboxes are safe or risky.

The questionnaire contains 15 questions, and each question is designed to collect specific information from the respondents. The questions cover major areas such as awareness, usage, frequency, purpose, ease of use, time-saving benefit, trust, data safety, data leakage concern, accuracy, preference, problems faced, future intention, overall safety perception, and recommendation.

The sample size is suitable because it helps in:

- Measuring awareness level among Gen-Z users.
- Understanding usage pattern of bank AI chatboxes.
- Identifying common purposes for using chatboxes.
- Analyzing trust and safety perception.
- Studying data privacy concerns.
- Finding whether improved security can increase future usage.

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• Understanding recommendation intention.

3.6 Pilot Study

A pilot study is a small preliminary study conducted before the final data collection. It helps the researcher check whether the questionnaire is clear, understandable, relevant, and suitable for the target respondents. In the present study, a pilot study may be conducted before distributing the final questionnaire to the full sample of Gen-Z respondents.

The purpose of the pilot study is to test whether the questions are properly framed and whether respondents can understand them without confusion. Since the topic is related to AI chatboxes, banking, safety perception, privacy, and trust, it is important to make sure that the wording of the questions is simple and clear. Some respondents may be familiar with the term "chatbot," while others may understand "chatbox" more easily. Therefore, both terms can be used together in the questionnaire to avoid confusion.

The pilot study may be conducted with a small group of 10 to 15 Gen-Z respondents. These respondents can be asked to complete the questionnaire and give feedback on the clarity of the questions. Their responses can help the researcher identify whether any question is difficult, repetitive, confusing, or irrelevant.

The pilot study helps in checking:

• Whether the questions are easy to understand.
• Whether the options are suitable.
• Whether the sequence of questions is logical.
• Whether the questionnaire covers the research objectives.
• Whether respondents take reasonable time to complete it.
• Whether any important question is missing.

For example, questions related to data safety and data leakage are important for this study. If respondents find these questions unclear, the researcher can simplify them before final data collection. Similarly, questions on trust, accuracy, problems faced, and overall safety perception must be clearly worded because they are directly related to the research topic.

If a pilot study is conducted, the researcher can mention that minor changes were made in the questionnaire based on feedback. If no formal pilot study was conducted, the researcher may write that the questionnaire was reviewed carefully before distribution to ensure clarity.

3.7 Data Analysis Techniques

Data analysis refers to the process of organizing, classifying, calculating, and interpreting the collected data. In this study, the data collected through the questionnaire will be analyzed using simple statistical and descriptive techniques. Since the questionnaire consists mainly of closed-ended questions, the responses can be easily presented in the form of tables, frequencies, percentages, bar graphs, and pie charts.

The main technique used for this study is percentage analysis. Percentage analysis is suitable because it helps in showing the proportion of respondents who selected each option. For example, if a large number of respondents agree that AI chatboxes save time, then it can be interpreted that time-saving is a major benefit. Similarly, if many respondents are concerned about data misuse or leakage, then it shows that privacy and security concerns are important barriers.

The formula for percentage analysis is:

$$\text{Percentage} = \frac{\text{Number of Respondents}}{\text{Total Number of Respondents}} \times 100$$

The data analysis will be done question-wise. Each question will be presented with:

• Question statement.
• Response options.

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• Frequency of each option.
• Percentage of each option.
• Table or chart.
• Interpretation of the result.

The survey questionnaire has 15 questions, and each question measures a specific aspect of Gen-Z perception. Questions 1 to 3 focus on awareness and usage. Questions 4 to 6 focus on purpose, usability, and time-saving benefit. Questions 7 to 10 focus on trust, data safety, data leakage concern, and accuracy. Questions 11 to 15 focus on preference, problems faced, future usage intention, overall safety perception, and recommendation intention.

3.8 Ethical Considerations

Ethical considerations are an important part of research methodology because they ensure that the study is conducted honestly, responsibly, and respectfully. Since the present study is related to banking, personal data, financial safety, and AI-based services, ethical practices are especially important. The researcher must ensure that respondents feel safe while participating in the survey and that their responses are used only for academic purposes.

In this study, respondents are not asked to share any sensitive banking information such as account number, ATM PIN, UPI PIN, OTP, password, debit card details, credit card details, or transaction credentials. The questionnaire only asks about their opinions, experiences, and perceptions regarding AI chatboxes in banking. This makes the study ethically safer and protects the privacy of respondents.

The ethical considerations followed in this study include:

• Respondents were informed about the purpose of the study.
• Participation in the survey was voluntary.
• Respondents were free to choose whether to answer the questionnaire.
• No respondent was forced to participate.
• Personal identity of respondents was kept confidential.
• Data was used only for academic and research purposes.
• No sensitive financial details were collected.
• Responses were analyzed honestly and without manipulation.
• The findings were presented objectively.

Confidentiality is a major ethical requirement in this study. Since the topic involves safety perception and banking services, respondents may hesitate to share their views if they feel their identity will be disclosed. Therefore, the researcher must assure respondents that their personal information will not be revealed.

Another important ethical point is informed consent. Respondents should know that the survey is being conducted for research purposes and that their responses will help in understanding the safety perception of Gen-Z users regarding AI chatboxes in selected Indian banks.

IV. DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

Data analysis and interpretation is one of the most important chapters of the research study because it converts collected responses into meaningful findings. In this chapter, the data collected through the survey questionnaire has been analyzed according to the objectives of the study. The topic of the study is "A Survey on the Safety Perceptions of Gen-Z Regarding AI Chatboxes/Chatbots in Selected Indian Banks." Therefore, the analysis mainly focuses on awareness, usage, trust, data safety, privacy concerns, accuracy, problems faced, and future acceptance of AI chatboxes in banking.

The survey questionnaire consisted of 15 questions. These questions were prepared to understand how Gen-Z respondents perceive AI chatboxes used by banks for customer service. The questionnaire covered important areas such as whether respondents are aware of banking AI chatboxes, whether they have used them, how frequently they use

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them, for what purpose they use them, whether they find them easy and time-saving, whether they trust the responses, whether they feel their personal and financial data is safe, and whether they are concerned about data misuse or leakage. The questionnaire also measured whether respondents prefer AI chatboxes over human customer service, whether they have faced problems while using them, whether they would continue using them if security features improve, and whether they would recommend them to other Gen-Z users.

The analysis of the survey shows that Gen-Z users are generally aware of AI chatboxes used by banks and many of them have used such services at least once. However, the usage is not very frequent for all respondents. Many respondents use AI chatboxes only sometimes, which shows that these tools are useful but have not yet become the primary service channel for every user. The findings also show that AI chatboxes are mainly used for routine banking needs such as transaction-related help, general queries, and account-related information.

A major focus of this chapter is on safety perception. The results show that while Gen-Z users recognize the convenience and time-saving benefits of AI chatboxes, their trust in data safety is moderate. Many respondents are concerned about the possibility of data misuse or leakage. This indicates that safety, privacy, and trust remain important factors affecting the acceptance of AI chatboxes in banking.

4.2 Demographic Profile of Respondents

The demographic profile of respondents helps in understanding the background of the people who participated in the survey. Since the present study is focused on Gen-Z users, the respondents selected for the study belong to the young digital generation. Gen-Z users are generally familiar with smartphones, internet banking, mobile banking applications, UPI payments, and digital customer support systems. Therefore, they are an appropriate group for studying perceptions about AI chatboxes in banking.

The respondents of this study were selected from Gen-Z banking users who either use or are aware of digital banking services. The demographic profile may include age group, gender, educational qualification, occupation, and type of banking service used. These demographic details are useful because they help in understanding whether the responses come from users who are digitally active and capable of forming opinions about AI chatboxes.

Demographic Characteristics of Respondents

The following demographic factors may be considered in this study:

Demographic Factor	Description
Age Group	Gen-Z respondents, mainly young banking users
Gender	Male, Female, Others
Educational Status	School students, undergraduate students, postgraduate students, young professionals
Occupation	Students, employed respondents, self-employed respondents
Banking Usage	Mobile banking, internet banking, UPI, bank applications
AI Chatbox Exposure	Aware users, actual users, non-users with awareness

Most respondents belong to the youth category and are comfortable with digital platforms. This is important because the study deals with AI chatboxes, which are digital tools used by banks for customer service. Gen-Z users are more likely to explore such services because they prefer quick, app-based, and online solutions instead of visiting bank branches for every query.

The demographic profile also supports the relevance of the research topic. Since the study is not about all banking customers but specifically about Gen-Z, the selected respondents are suitable for analyzing young users' views. Their perception is important because banks are increasingly designing digital services for young customers who expect convenience, speed, and instant support.

The survey results show that a large number of respondents are aware that some banks use AI chatboxes or chatbots for customer service. This indicates that AI-based banking support is visible among Gen-Z users. The findings also show

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that many respondents have already used bank AI chatboxes at least once, which means their answers are not only based on assumptions but also on real digital banking experience.

However, the demographic profile also indicates that not all Gen-Z users are equally dependent on AI chatboxes. Some respondents may use them frequently, while others may use them only sometimes or rarely. This difference is important because safety perception may vary according to experience. A frequent user may focus on convenience and speed, while a less frequent user may focus more on privacy risk, accuracy, and trust.

Overall, the demographic profile shows that the respondents are appropriate for the study because they belong to the target generation, use digital banking services, and are capable of sharing meaningful opinions about AI chatboxes used by selected Indian banks.

4.3 Analysis of Data as per Objectives

The data collected through the questionnaire has been analyzed according to the major objectives of the study. The objective-wise analysis helps in connecting the survey results directly with the purpose of the research.

Objective 1: To study the awareness of Gen-Z users regarding AI chatboxes used by Indian banks

The first objective of the study was to examine whether Gen-Z users are aware that banks use AI chatboxes or chatbots for customer service. The survey results show that a large majority of respondents are aware of the use of AI chatboxes in banking. This means that AI-based customer support tools are no longer completely new or unknown among young banking customers.

This awareness may be due to the increasing use of mobile banking applications, bank websites, WhatsApp banking, and automated customer support systems. Many banks now use chatbots to answer basic customer queries, provide information about products and services, and assist users with transaction-related issues.

Interpretation:

The high level of awareness shows that Gen-Z customers are familiar with AI-based banking support. Since this generation is digitally active, they are more likely to notice and use technology-based services. However, awareness alone does not guarantee complete acceptance. Users may know about AI chatboxes but may still hesitate to use them due to safety or trust concerns.

Objective 2: To examine the usage pattern of AI chatboxes among Gen-Z banking users

The second objective was to understand whether respondents have used a bank AI chatbox and how often they use it. The results show that most respondents have used a banking AI chatbox at least once. This indicates that AI chatbox interaction is part of the actual digital banking experience of many Gen-Z users. However, the results also show that more than one-fourth of respondents have never used such a service, which means adoption is not universal.

Regarding frequency, the highest number of respondents reported that they use AI chatboxes only sometimes. This shows that Gen-Z users are not fully dependent on AI chatboxes for every banking need. They may use chatboxes when they need quick answers but may still prefer other channels for complex issues.

Interpretation:

The usage pattern shows moderate engagement. AI chatboxes are used by Gen-Z, but they are not always the first choice. This may be because users trust chatboxes for simple queries but not for serious banking concerns. It may also indicate that users still prefer human customer service for complaint resolution, account problems, or sensitive financial matters.

Objective 3: To identify the main purposes for which Gen-Z users use bank AI chatboxes

The third objective was to find out the main purpose for which respondents use AI chatboxes in banking. The survey results show that transaction-related help is the most common purpose. This is followed by general queries and

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account-related information. Complaint resolution appears less common, which suggests that users may not fully trust AI chatboxes for serious or complex problems.

AI chatboxes are mostly used for routine and immediate assistance. For example, users may ask about failed transactions, payment status, banking services, account information, card-related queries, or basic product details. These are areas where users expect quick responses.

Interpretation:

The findings show that Gen-Z users prefer AI chatboxes mainly for simple and routine banking services. They may consider chatboxes convenient for quick information but may avoid them for emotionally stressful or serious problems like complaints, fraud issues, or unresolved transactions. This reflects a limited but useful role of AI chatboxes in banking.

Objective 4: To analyze ease of use and time-saving benefits of AI chatboxes

The fourth objective was to examine whether Gen-Z users find bank AI chatboxes easy to use and whether they save time compared to visiting a branch or calling customer care. The survey results show that most respondents perceived AI chatboxes as easy or very easy to use. This indicates that the interface and basic functioning of chatboxes are generally acceptable for Gen-Z customers.

The results also show that a clear majority agreed that AI chatboxes save time compared to traditional service channels. This is an important finding because convenience and speed are major reasons why young users prefer digital banking tools.

Interpretation:

The findings suggest that usability and convenience are strong positive factors for AI chatbox adoption. Gen-Z users value quick responses and easy access. They may prefer chatboxes for basic queries because they do not need to wait in call queues or visit bank branches physically. However, a small group found the system difficult, which indicates that banks should still improve interface design, language clarity, and response quality.

Objective 5: To study the level of trust Gen-Z users have in responses given by AI chatboxes

Trust is a central factor in the acceptance of AI chatboxes, especially in banking. The survey results show moderate trust in the responses provided by bank AI chatboxes. A considerable number of respondents agreed that they trust chatbot responses, but a notable group remained neutral or skeptical. This means that trust exists, but it is not very strong.

The survey also asked whether respondents think bank AI chatboxes provide accurate information. The responses show that users are moderately positive about accuracy, but confidence is not overwhelming. A large neutral category indicates uncertainty regarding the consistency and correctness of chatbot responses.

Interpretation:

The findings show that Gen-Z users may trust AI chatboxes for basic information but may not fully trust them for important financial decisions or sensitive banking issues. Accuracy is directly connected with safety perception. If users feel that the chatbot may provide wrong or incomplete information, they may avoid using it for serious queries.

Objective 6: To examine Gen-Z perception of personal and financial data safety

One of the main objectives of the study was to examine whether Gen-Z users feel their personal and financial data is safe while using bank AI chatboxes. The survey results show mixed perceptions. Some respondents believe that their information is safe, but many respondents either disagreed or remained neutral. This shows that data safety is a sensitive issue. The questionnaire also asked whether respondents are concerned that AI chatboxes may misuse or leak their data.

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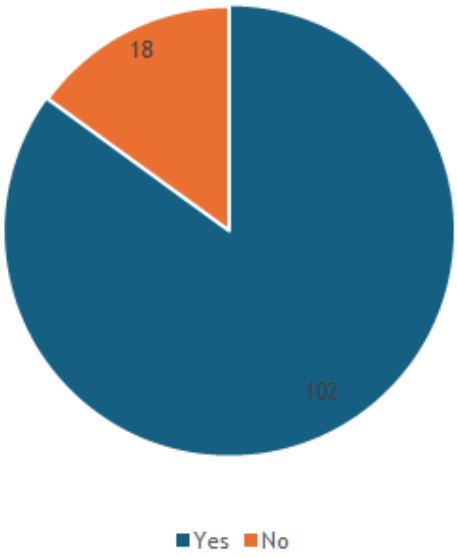
Interpretation:
The findings clearly show that safety perception is not fully positive. Even though Gen-Z users are digitally active, they are still careful about sharing personal and financial data with AI systems. Their concern may be related to online fraud, data breaches, phishing, unauthorized access, or lack of clarity about how chatbot conversations are stored and used.

4.4 Table-wise / Chart-wise Interpretation
Survey Questionnaire for Data Collection
Q1. Are you aware that some banks use AI chatboxes/chatbots for customer service?
Options:
A. Yes
B. No

Sample Survey Result



Interpretation
The table shows that a large majority of respondents are aware that banks use AI chatboxes for customer service. This suggests that Gen Z customers are generally familiar with AI-based support tools in banking. Only a small proportion reported lack of awareness, indicating that AI chatboxes are already visible in the banking environment.

Q2. Have you ever used an AI chatbox/chatbot provided by a bank?
Options:
A. Yes
B. No

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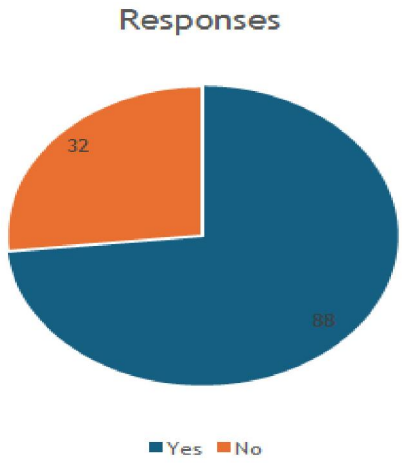
Sample Survey Result



Interpretation

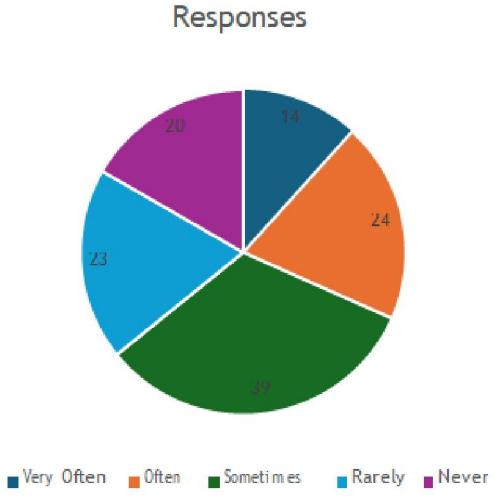
The findings indicate that most respondents have used a banking AI chatbox at least once. This shows that chatbot interaction is not merely theoretical for Gen Z users but part of their actual digital banking experience. However, more than one-fourth have never used such a service, which suggests that adoption is still not universal.

Q3. How often do you use AI chatboxes in banking applications?

Options:

A. Very Often
B. Often
C. Sometimes
D. Rarely
E. Never

Sample Survey Result



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Interpretation

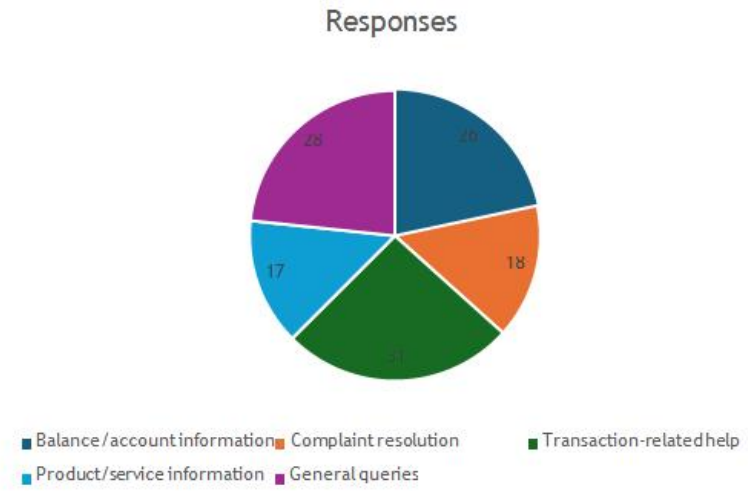
The highest number of respondents reported using banking AI chatboxes only sometimes. This suggests moderate engagement with AI chatboxes rather than very frequent dependence on them. It indicates that Gen Z users may prefer chatboxes for selected needs, but they do not always use them as their primary service channel.

Q4. For what purpose do you mainly use bank AI chatboxes?

Options:

A. Balance/account information
B. Complaint resolution
C. Transaction-related help
D. Product/service information
E. General queries

Sample Survey Result



Interpretation

The results show that transaction-related help is the most common reason for using banking AI chatboxes, followed by general queries and account information. This suggests that users mainly rely on chatboxes for routine and immediate assistance. Complaint resolution appears less common, possibly because users may prefer human support for more serious issues.

Q5. How easy is it to use a bank's AI chatbox?

Options:

A. Very Easy
B. Easy
C. Neutral
D. Difficult
E. Very Difficult

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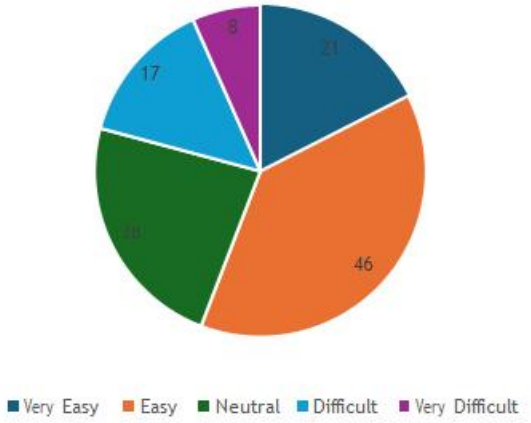
Sample Survey Result



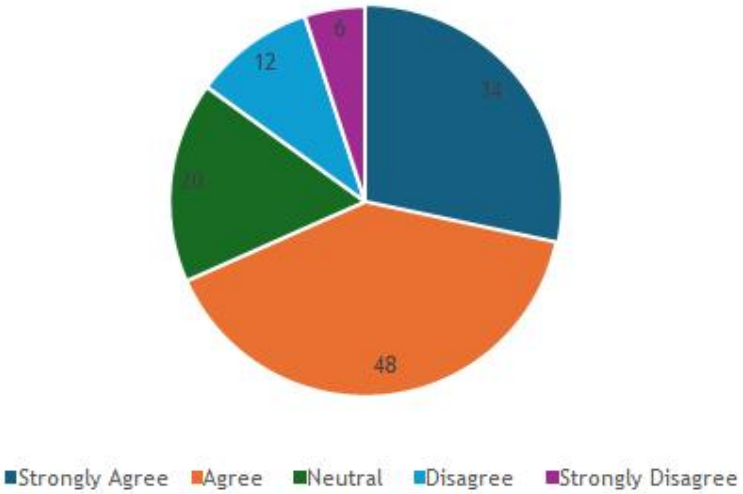
Interpretation

Most respondents perceived bank AI chatboxes as easy or very easy to use. This indicates that usability is generally acceptable among Gen Z customers. Still, a small group found the systems difficult, which suggests there is room for improvement in interface design and clarity of interaction.

Q6. Do you think AI chatboxes save time compared to visiting a bank branch or calling customer care?
Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

Sample Survey Result



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Interpretation

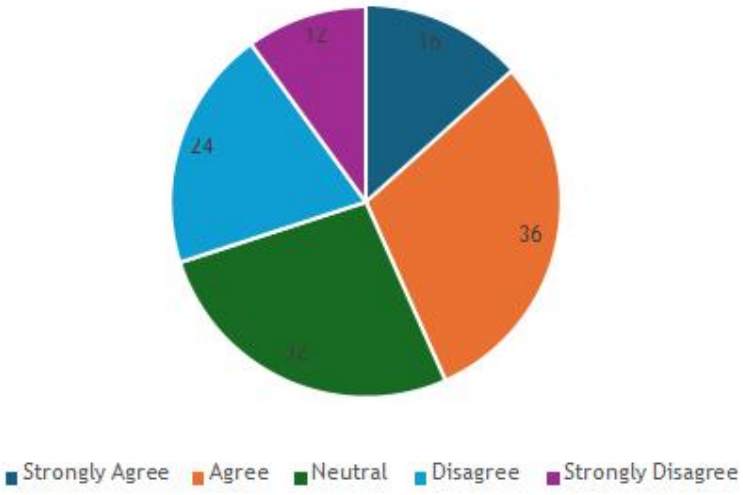
A clear majority agreed that AI chatboxes save time compared to traditional service channels. This finding supports the idea that convenience and speed are major strengths of AI-based banking support. Only a small minority disagreed, showing that time-saving value is widely recognized among respondents.

Q7. Do you trust the responses provided by bank AI chatboxes?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

Sample Survey Result



Interpretation

The responses show moderate trust in bank AI chatboxes. While a substantial number of respondents agreed that they trust chatbot responses, a notable share remained neutral or skeptical. This indicates that trust is present but not fully established, making it an important factor in the study.

Q8. Do you feel your personal and financial data is safe when using bank AI chatboxes?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

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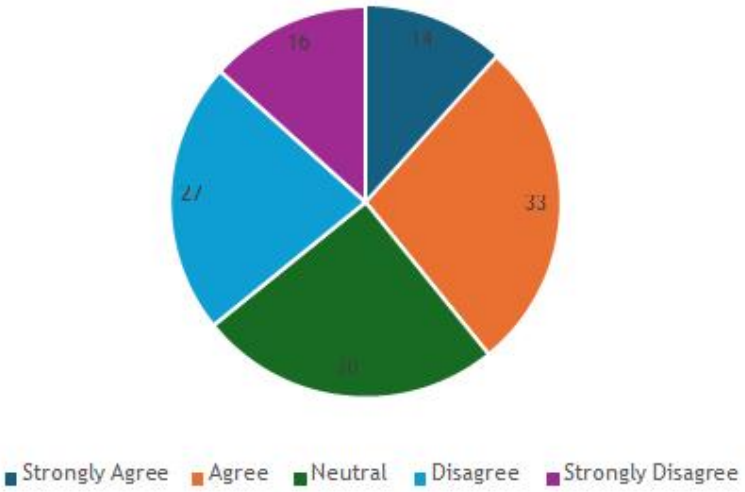


Interpretation

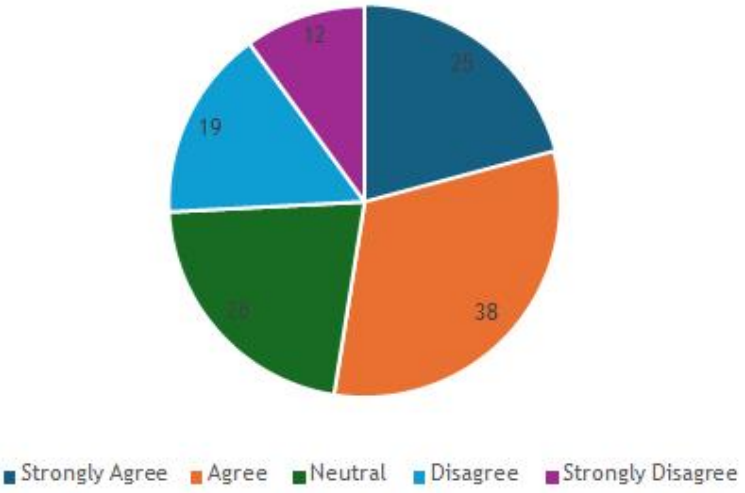
The result suggests mixed perceptions regarding data safety. Although some respondents believe their information is safe, a considerable number either disagreed or remained neutral. This indicates that security perception is a sensitive issue and may significantly influence acceptance of AI chatboxes in banking.

Q9. Are you concerned that AI chatboxes may misuse or leak your data?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

Sample Survey Result



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Interpretation

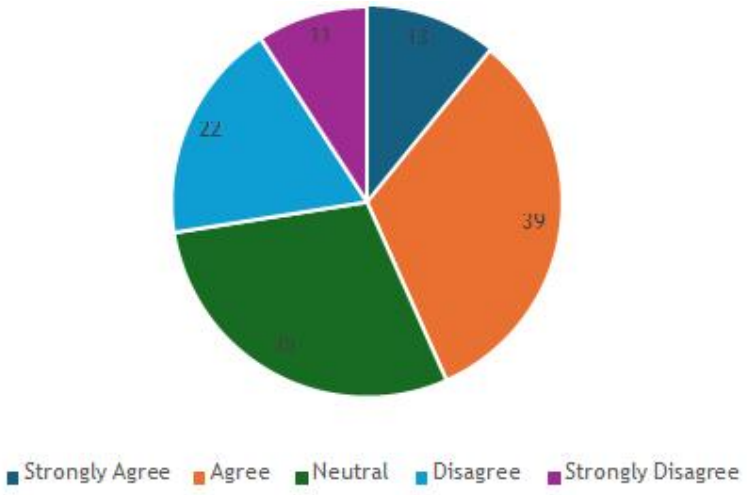
More than half of the respondents expressed concern about data misuse or leakage. This shows that fear related to privacy and information security remains strong among Gen Z banking users. Such concern may act as a barrier to deeper trust and wider chatbot acceptance.

Q10. Do you think bank AI chatboxes provide accurate information?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

Sample Survey Result



Interpretation

The result indicates that respondents are moderately positive about the accuracy of AI chatbox information, but confidence is not overwhelming. A large neutral category suggests uncertainty about consistency and correctness. This implies that accuracy remains a key area influencing user confidence.

Q11. Do you prefer AI chatboxes over human customer service for basic banking queries?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

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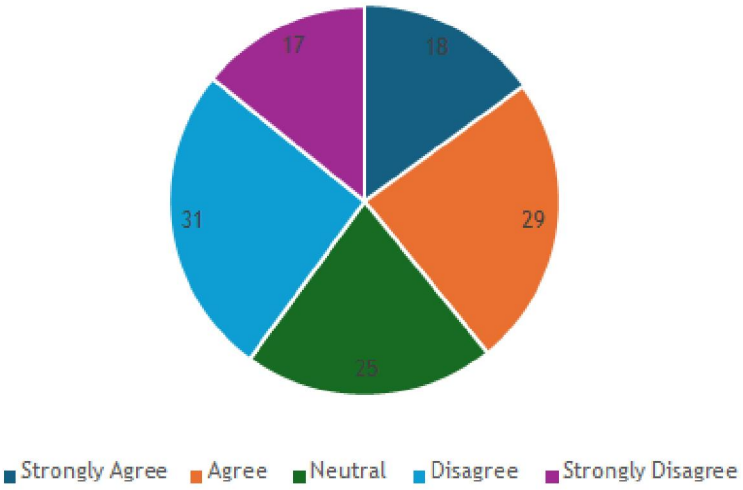


Interpretation

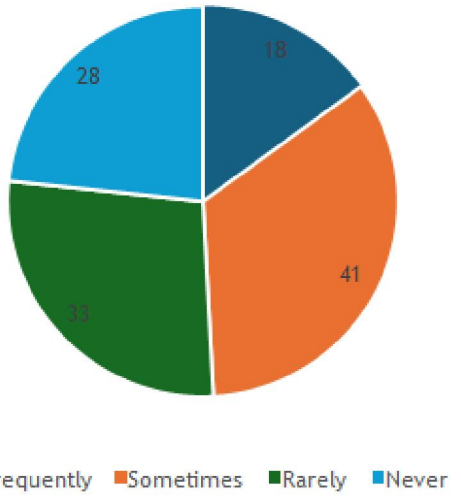
The responses are divided on whether AI chatboxes are preferred over human customer service. While a significant number support chatbot use for basic queries, a slightly higher proportion still prefer human interaction. This suggests that AI chatboxes are seen as useful, but not as a complete substitute for human assistance.

Q12. Have you ever faced a problem while using a bank AI chatbox?

Options:

A. Frequently
B. Sometimes
C. Rarely
D. Never

Sample Survey Result



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Interpretation

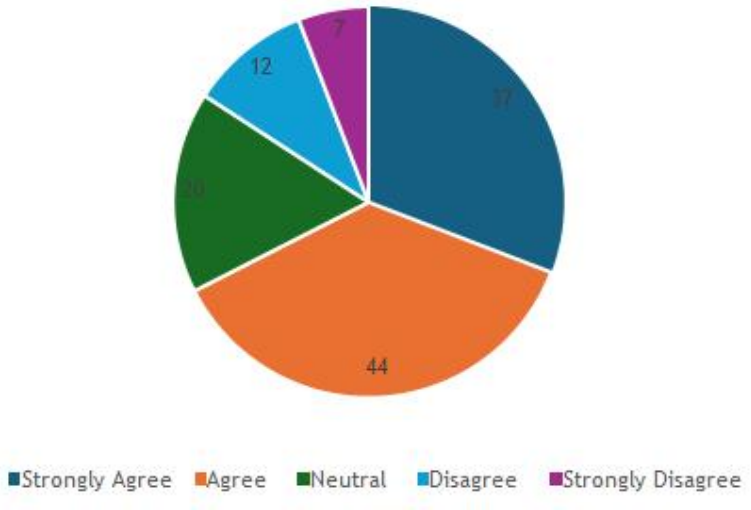
The majority of respondents reported facing problems either sometimes or frequently while using AI chatboxes. This indicates that user friction remains an important issue. Although not all users encounter difficulties, system errors or incomplete assistance may reduce long-term trust and satisfaction.

Q13. Would you continue using bank AI chatboxes if their security features improve?

Options:

A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

Sample Survey Result



Interpretation

A strong majority stated that they would continue using bank AI chatboxes if security features improved. This clearly shows that safety perception is not only a concern but also a deciding factor for future use. It suggests that banks can increase adoption by strengthening visible security measures and user assurance.

Q14. Overall, how safe do you consider bank AI chatboxes?

Options:

A. Very Safe
B. Safe
C. Neutral
D. Unsafe
E. Very Unsafe

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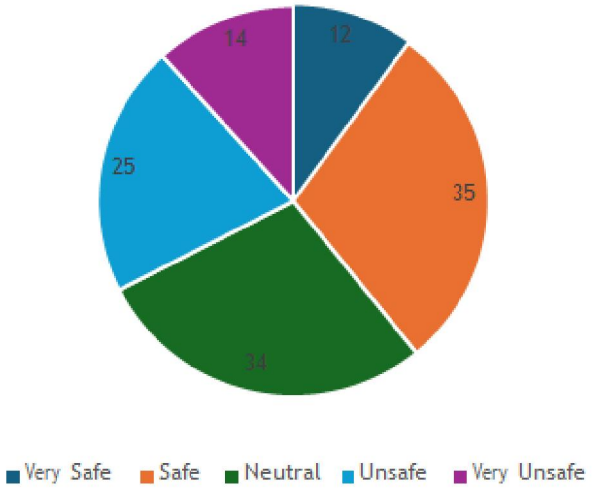
Sample Survey Result



Interpretation

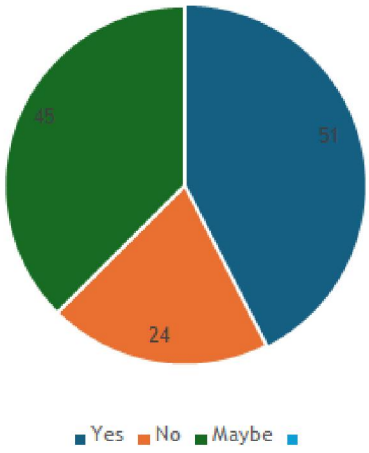
The overall safety perception appears moderate rather than strongly positive. The largest groups are those who consider AI chatboxes safe and those who remain neutral. At the same time, a meaningful share perceives them as unsafe, showing that banks still need to strengthen trust and security communication.

Q15. Would you recommend the use of bank AI chatboxes to other Gen Z users?

Options:

A. Yes
B. No
C. Maybe

Sample Survey Result



Interpretation

The result shows that many respondents are willing to recommend banking AI chatboxes, but a large "maybe" group remains. This means the technology has acceptance potential, yet users may still have reservations related to reliability, trust, or safety. Recommendation intention appears positive but not fully strong.

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4.5 Discussion of Findings

The discussion of findings explains the meaning of the survey results in relation to the main aim of the study, which is to understand the safety perceptions of Gen-Z regarding AI chatboxes/chatbots in selected Indian banks. The survey results show that Gen-Z users are generally aware of AI chatboxes used by banks, and many respondents have used them at least once. This indicates that AI-based customer support is becoming a visible part of the banking experience. However, the findings also show that awareness and usage do not automatically mean complete trust or acceptance. Gen-Z users may be digitally active and comfortable with technology, but they still remain cautious when the matter is related to personal and financial data.

One of the major findings is that most respondents are aware that banks use AI chatboxes for customer service. This suggests that AI chatboxes are no longer unfamiliar to young banking users. Their presence in mobile banking apps, bank websites, and digital customer service platforms has increased visibility among Gen-Z customers. However, awareness is only the first stage of adoption. A person may know about a technology but may still hesitate to use it regularly if they have doubts about its safety, accuracy, or reliability.

The findings also show that most respondents have used a bank AI chatbox at least once, but the frequency of use is moderate. Many respondents reported that they use AI chatboxes only sometimes. This means that AI chatboxes are accepted as a useful support tool, but they are not yet the primary banking service channel for all Gen-Z users. This occasional usage may be because users prefer chatboxes for simple and routine queries, but they may not depend on them for complex or sensitive banking matters.

The survey further reveals that Gen-Z users mainly use AI chatboxes for transaction-related help, general queries, and account-related information. This shows that users find chatboxes helpful for quick and basic banking support. They may use them to check information, resolve small doubts, or get immediate assistance. However, complaint resolution is less preferred through AI chatboxes. This finding is important because it shows that users may not fully trust AI chatboxes when the issue is serious, emotional, or requires responsibility from the bank. For major problems, customers may still prefer human customer service.

Another important finding is that most respondents consider bank AI chatboxes easy to use. This indicates that usability is not a major barrier for Gen-Z users. Since Gen-Z is familiar with digital apps and online interfaces, they are more comfortable using automated tools. The respondents also agreed that AI chatboxes save time compared to visiting a bank branch or calling customer care. This proves that convenience and speed are two major strengths of AI chatboxes in banking.

Major Findings of the Study

- Gen-Z users are generally aware of AI chatboxes used in banking.
- Many respondents have used bank AI chatboxes at least once.
- Usage frequency is moderate, not very high.
- AI chatboxes are mainly used for transaction-related help, general queries, and account information.
- Most respondents find AI chatboxes easy to use.
- Trust in AI chatbox responses is moderate.
- Respondents are not fully confident about the accuracy of AI chatbox information.
- Data safety perception is mixed among Gen-Z users.
- Concern about data misuse or leakage is high.
- Many respondents have faced problems while using AI chatboxes.

Discussion in Relation to Research Objectives

The findings support the objective of studying awareness because most respondents know that banks use AI chatboxes. The objective related to usage pattern is also fulfilled because the study shows that many users have experience with

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chatboxes, but they use them only occasionally. The objective of identifying purpose of use is fulfilled because transaction-related help, general queries, and account information emerged as major purposes.

The study also fulfills the objective of analyzing safety perception. The results show that Gen-Z users are not completely confident about data safety. Their concerns about data leakage and misuse show that privacy is a major issue. The objective of studying trust is also fulfilled, as the findings reveal moderate trust in chatbot responses. Similarly, the objective of examining future usage is achieved because the results show that improved security can encourage continued use.

V. FINDINGS AND DISCUSSION

Major Findings of the Study

The study found that a large number of Gen-Z respondents are aware that banks use AI chatboxes or chatbots for customer service. This shows that AI-based banking support has become visible among young banking customers. Awareness is an important first step because users cannot adopt a service unless they know about it. The finding suggests that banks have succeeded to some extent in making AI chatboxes visible through mobile banking apps, websites, and digital service platforms.

Another important finding is that most respondents have used a banking AI chatbox at least once. This shows that AI chatbox usage is not only theoretical but part of the actual digital banking experience of Gen-Z users. However, the frequency of use is moderate. Many respondents use AI chatboxes only sometimes, which means that these tools are not yet the main customer service channel for all users.

The main findings of the study are:

- Most respondents are aware of bank AI chatboxes.
- Many respondents have used a bank AI chatbox at least once.
- Usage is mostly occasional rather than very frequent.
- AI chatboxes are mainly used for transaction-related help, general queries, and account information.
- Complaint resolution is less commonly handled through AI chatboxes.
- Most respondents find AI chatboxes easy to use.
- AI chatboxes are considered time-saving compared to bank visits or customer care calls.
- Trust in AI chatbox responses is moderate.

The findings also show that Gen-Z users mainly use AI chatboxes for routine banking support. Transaction-related help emerged as one of the most common reasons for using bank AI chatboxes. This indicates that young customers prefer chatboxes for quick and immediate assistance. However, complaint resolution appears less common, suggesting that users may still prefer human support when the issue is serious or complicated.

Discussion of Findings

The findings reveal that Gen-Z users accept AI chatboxes as useful digital banking tools, but their acceptance depends heavily on safety and trust. Gen-Z is usually considered a technology-friendly generation, but this study shows that digital comfort does not automatically create full confidence in AI-based banking services. Banking is a sensitive area because it involves personal details, financial data, account information, and transaction records. Therefore, even digitally skilled users become careful when using AI systems in banks.

Ease of use is one of the strongest positive findings of the study. Most respondents find AI chatboxes easy to use. This is expected because Gen-Z users are familiar with digital interfaces and online communication tools. AI chatboxes also save time because users do not need to visit a branch or wait on customer care calls. This makes chatboxes suitable for quick and basic banking queries.

However, the findings also show that trust remains incomplete. Many respondents trust chatbot responses only to a moderate extent. A significant number are neutral or doubtful. This may be because AI chatboxes sometimes provide

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general answers, repeated responses, or incomplete solutions. In banking, users expect accurate and dependable information. If a chatbot gives wrong or unclear information, users may lose confidence quickly.

Data safety is the most important issue found in the study. The survey shows mixed responses regarding whether respondents feel their personal and financial data is safe while using bank AI chatboxes. Many respondents are concerned that AI chatboxes may misuse or leak their data. This is a serious finding because privacy and security are central to banking trust.

The findings suggest that users may ask questions such as:

- Is my chatbot conversation stored by the bank?
- Can the chatbot access my account details?
- Can my personal information be misused?
- What happens if the chatbot gives wrong information?
- Can I speak to a human agent if the chatbot fails?
- Is my data protected from fraud or leakage?

VI. CONCLUSION AND RECOMMENDATIONS

Conclusion

The present study was conducted to understand the safety perceptions of Gen-Z regarding AI chatboxes/chatbots in selected Indian banks. The study focused on how young banking users view AI-based customer support in relation to awareness, usage, trust, data safety, accuracy, privacy, problems faced, future usage, and recommendation intention. The data was collected through a structured questionnaire, and the responses were analyzed to understand the overall perception of Gen-Z users.

The study concludes that Gen-Z users are generally aware of AI chatboxes used in banking. Many respondents have also used these chatboxes at least once. This shows that AI chatboxes are becoming an important part of digital banking services. Banks are increasingly using AI tools to provide faster responses, reduce customer service workload, and support users with basic banking queries.

However, the study also concludes that awareness and usage do not mean complete trust. Gen-Z users may be comfortable with digital technology, but they are still cautious about using AI chatboxes in banking. This is mainly because banking involves sensitive personal and financial information. Users want to be sure that their data is safe and that the chatbot will not misuse, leak, or mishandle their information.

The findings show that AI chatboxes are mostly used for routine banking purposes such as transaction-related help, general queries, account information, and product or service details. They are considered useful for quick and basic assistance. The respondents also generally agree that AI chatboxes are easy to use and save time compared to visiting a bank branch or calling customer care.

At the same time, the study concludes that trust in AI chatboxes is only moderate. Respondents are not fully confident about the accuracy of chatbot responses. Many users are unsure whether chatboxes can always provide correct, complete, and reliable information. This is important because incorrect information in banking can create confusion or financial risk. The most significant conclusion of the study is that safety perception is a major factor affecting Gen-Z's acceptance of AI chatboxes. Many respondents expressed concern about data misuse or leakage. This shows that privacy and security risks are major barriers to wider adoption.

Recommendations

Based on the findings of the study, the following recommendations are suggested for banks and financial institutions:

1. Strengthen Data Security Features

Banks should improve the security features of AI chatboxes so that users feel safe while interacting with them. Since many respondents are concerned about data misuse and leakage, banks must ensure strong data protection systems.

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Recommended actions:

- Use secure authentication methods.
- Avoid asking for sensitive information like OTP, PIN, or passwords.
- Protect chatbot conversations with encryption.

2. Improve Transparency About Data Usage

Banks should clearly inform users about how their chatbot data is collected, stored, processed, and protected. Many users feel unsafe because they do not know what happens to their data after using a chatbot.

Banks should provide:

- Simple privacy notices.
- Clear data usage policies.
- Warnings against sharing sensitive banking credentials.

3. Increase Accuracy of Chatbot Responses

Accuracy is directly connected with trust. If chatboxes provide wrong or incomplete answers, users may stop using them. Banks should regularly update chatbot databases and train AI systems with accurate banking information.

Banks should focus on:

- Updated product and service information.
- Correct transaction-related guidance.

4. Provide Easy Human Escalation

AI chatboxes should not be the only support option. Users should be able to quickly connect with a human agent when the chatbot fails to solve the issue.

This is important for:

- Complaint resolution.
- Failed transactions.
- Fraud-related concerns.

A smooth human escalation system can increase user confidence and reduce frustration.

5. Improve User Awareness and Education

Banks should educate Gen-Z users about safe chatbot usage. Awareness campaigns can help users understand what information can be safely shared and what should never be shared. Banks can educate users through:

- Mobile app notifications.
- Website banners.
- Short safety videos.

6. Make Chatboxes More User-Friendly

Although most respondents find AI chatboxes easy to use, some users still face problems. Banks should improve chatbot design, language clarity, navigation, and response flow.

Improvements may include:

- Simple interface.
- Multilingual support.
- Clear menu options.
- Quick response time.
- Better understanding of natural language.
- Personalized but secure assistance.

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