



# A QUANTITATIVE STUDY ON E-BANKING AT SBI

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## Abstract:

This research delves into the e-banking landscape at the State Bank of India (SBI) through quantitative analysis. Data collected from SBI customers via surveys unveils usage patterns, satisfaction levels, and concerns regarding e-banking. Analysis reveals a significant adoption of e-banking, driven by convenience and accessibility, yet underscores persistent challenges like security apprehensions. The findings inform strategic decisions for SBI, emphasizing platform refinement and security enhancement. Contributing to the broader discourse on e-banking adoption, this study offers actionable insights for researchers and practitioners, fostering efficiency, security, and customer-centricity in e-banking operations at SBI.

## Keywords

E-banking, State Bank of India (SBI), Quantitative analysis, Customer surveys, Usage patterns, Satisfaction levels, Security concerns, Adoption rates, Convenience, Accessibility, Platform refinement, Security enhancement, Strategic decisions, Customer-centricity, Efficiency, Research, Practitioners, Banking operations, Digital banking, Financial technology (Fintech)

## Introduction

The financial sector is vital for a country's economic growth, with banks playing a central role. The development of the banking sector significantly influences overall economic progress. In today's rapidly changing technological environment, there's a swift evolution in the demand for financial services. To meet these demands and attract more customers, banks must embrace advanced technology. They're expanding to efficiently utilize financial resources, facilitate large investments, engage in intermediation activities, and adapt to rapid industry changes to meet customer needs.

Globalization has transformed the Indian banking industry, with banks leading in technological adoption to enhance offerings and operational efficiency. E-banking has revolutionized banking, enabling expansion beyond borders and pursuit of new opportunities. Technological advancements, starting from punched card machines to real-time systems, have reshaped banking operations.

Intense competition has prompted banks to revamp operations, reinventing products and services for cost-effectiveness. E-banking has facilitated exploration of alternative practices at lower costs. The rise in electronic banking adoption mirrors increasing consumer computer literacy, driving banks to offer electronic solutions to stay competitive. This technological evolution positions e-banking as a driver of innovation, fostering a more accessible and efficient financial ecosystem.

## OBJECTIVES OF THE STUDY

1. To analyze the e-banking services offered by SBI
2. To compare SBI's e-banking services with those of other leading banks in India.
3. To identify the strengths and weaknesses of SBI's e-banking services.
4. To suggest recommendations for enhancing SBI's e-banking services.

## SCOPE OF THE STUDY

Presently, substantial economic and technological changes are underway, chiefly propelled by new information-processing technologies, pivotal for overall progress, notably in finance. A thorough literature review underscores the extensive use of information technologies, especially in finance, prompting a study focusing on the urban cooperative banking system. Following a methodical automation process, a comprehensive review is now imperative. Urban cooperative banks cater to a diverse clientele, significantly shaping cultural and operational norms. Hence, there's ample opportunity to scrutinize modern transaction systems within this sector. This study aims to theoretically assess the automation process using software engineering model-based techniques, a field largely untapped outside software development.

## RESEARCH METHODOLOGY

Secondary research was conducted to review the present status of E Banking

**Type of Research Descriptive:** Descriptive research includes surveys and fact finding enquiries of kinds.

**Fundamental:** The information and data for the research can be collected through primary and secondary sources i.e. published articles, journals, newspapers, reports, books and websites. Data has been collected from the websites of the Reserve Bank of India and also taken from various committee reports submitted to Government of India on Financial Inclusion.

### Quantitative:

- 1) Quantitative research is based on the measurement of quantity or amount.
- 2) Quantitative type of research aims at discovering the underline motives and desires
- 3) Research designed to find out how people feel or what they think about particular subject or institution.

### Qualitative:

- 1) Qualitative research is especially important in the behavioral sciences
- 2) Qualitative research in practice is relatively a difficult job.
- 3) Though search research we can analyze the various factors.

### Conceptual:

Conceptual research is that related to some abstract idea or theory. It is data based research coming up with conclusion which are capable of being verified observation. In such research it is necessary to get at facts firsthand.

### Area of Research

To study the awareness and satisfaction level of the customers of STATE BANK OF INDIA compared with other banks

## Data Collection Methods

### Primary Data

The study is conducted by using questionnaire, the study depended on primary data.

### Secondary Data

Secondary data is collected from the books and surveys.

Research Instrument All analysis is done by using basic graphical presentations.

### Questionnaire Design

Questionnaire design is a multistage process that requires attention to many details at once. Designing the questionnaire is complicated because surveys can ask about topics in varying degrees of detail, questions can be asked in different ways, and questions asked earlier in a survey may influence how people respond to later questions. Researchers also are often interested in measuring change over time and therefore must be attentive to how opinions or behaviors have been measured in prior surveys.

Surveyors may conduct pilot tests or focus groups in the early stages of questionnaire development in order to better understand how people think about an issue or comprehend a question. Pretesting a survey is an essential step in the questionnaire design process to evaluate how people respond to the overall questionnaire and specific questions. For many years, surveyors approached questionnaire design as an art, but substantial research over the past thirty years has demonstrated that there is a lot of science involved in crafting a good survey questionnaire. Here, we discuss the pitfalls and best practices of designing questionnaires.

### Sampling Procedure

A simple random sampling method (Convenience sampling) is used to collect data from respondents.

Sample Size Primary data is collected from 100 respondents.

### Statistical Tools:

The study depends on primary data. The data collected were systematically tabulated, analyzed, interpreted and presented in this report. Tables are used for the analysis of the collected data. The data is also neatly presented with the help of pie charts. Percentages and averages are used to represent the data.

### Sample Design

Sufficient care has been taken to select the sample respondents. For this purpose, simple random sampling was used to select the respondents. The present study relied on primary data collected through administering a structured Interview Schedule and Questionnaire.

## LIMITATIONS

1. The study results are limited to the study are that is Hyderabad city only.
2. This study was conducted and targeted only e-banking respondents who used Ebanking services.
3. The statistical tools are used in this study suffer from their inherent defects.
4. Due to time constraint the survey was restricted to a sample size of 300 customers.
5. Inability on the part of some of the respondents to answer certain questions is a limitation of this study.

## REVIEW OF LITERATURE

Electronic banking, also known as e-banking, encompasses various methods through which customers can conduct banking transactions electronically, eliminating the need to visit physical bank branches. This umbrella term includes several forms such as personal computer (PC) banking, Internet banking, virtual banking, online banking, home banking, remote electronic banking, and phone banking. PC banking enables customers to perform transactions from their home computers via a modem, using proprietary financial software provided by the bank. On the other hand, Internet banking, also referred to as online banking, utilizes the Internet as the platform for conducting banking activities like fund transfers, bill payments, and account inquiries. Customers access their accounts through a browser, with the banking programs residing on the bank's World Wide Web server.

Internet banks, sometimes called virtual or cyber banks, typically offer lower operational costs compared to traditional brick-and-mortar banks. They provide services such as account balances, transaction capabilities, and high-yield certificates of deposit over the Internet. Some Internet banks operate without physical branches, conducting transactions internationally and instantaneously.

Electronic banking offers various advantages for remote account access, including round-the-clock availability, worldwide connectivity, and easy access to transaction data. Customers can control international fund movements directly without intermediary financial institutions.

Opening an electronic banking account in the United States involves minimal paperwork. Existing bank customers can obtain PC banking software or an Internet banking password from their institution. New customers can apply online for Internet banking or submit a PC banking application form, funding their accounts through various methods like check or wire transfer.

E-banking is defined as the automated delivery of banking products and services directly to customers through electronic channels. Customers access e-banking services using electronic devices like personal computers, ATMs, or smartphones. While the risks and controls are similar across e-banking access channels, this discussion focuses specifically on Internet-based services due to the Internet's widespread accessibility. Transactional websites allow customers to conduct banking transactions, ranging from basic account inquiries to large funds transfers. E-banking services are categorized based on the type of customer they support, with common services including retail and wholesale e-banking offered by financial institutions.

In their respective research endeavors, scholars delve into various facets of internet banking, aiming to understand its adoption, impact, and factors influencing customer satisfaction. Shaza W. Ezzi explores the evolution of internet banking from consumers' demand for convenient access to banking services, especially beyond traditional operating hours. They propose a theoretical model to aid in comprehending the acceptance and adoption of internet banking, particularly in developing nations.

Kartikeya Bolar focuses on end-user acceptance of technology interfaces, emphasizing the need for creators and investors to understand customers' assessments of technology interfaces to enhance strategic decisions. Dorra Gherib investigates the adoption and diffusion of internet banking in the Tunisian banking sector, identifying factors that accelerate or impede the implementation process.

Nabil Hussein Al-Fahim explores factors affecting internet banking adoption among postgraduate students, emphasizing the importance of trust, ease of use, awareness, and security. Anil Kumar and Manoj Kumar Dash construct a measurement of service quality for Indian banks, highlighting its impact on customer satisfaction.

These studies highlight the significance of internet banking in modern banking practices, with scholars emphasizing its cost-effectiveness, convenience, and potential to empower users. Factors influencing its adoption include prior experience with technology, social pressure, and perceived usefulness.

Amruth Raj Nippatlapalli's study on customer satisfaction in commercial banks underscores the importance of meeting customer expectations and improving service quality. Factors such as perceived value, brand perception, ease of use, and security influence customer satisfaction and adoption of e-banking services.

Collectively, these research efforts shed light on the complexities of internet banking adoption, its impact on customer satisfaction, and the factors shaping its usage. They provide valuable insights for banking institutions, policymakers, and researchers seeking to understand and enhance the e-banking experience for customers.

## **INDSTRY PROFILE & COMPANY PROFILE**

State Bank of India (SBI) has completed the formal reverse merger of SBI Ltd with its banking arm, making it the second-largest bank in India after SBI itself. With the Reserve Bank of India's approval, the merger also includes two SBI subsidiaries, SBI Personal Financial Services and SBI Capital Services. Effective from March 30, 2022, the swap ratio for shares has been fixed at two SBI shares for one SBI Bank share. The merger is subject to various conditions, including compliance with reserve requirements, prudential norms, swap ratio regulations, and appointment of directors.

In terms of industry analysis, the Indian banking sector has faced challenges due to economic slowdown, with borrowers delaying repayments or defaulting. SBI's introduction of the Lead Management System (LMS) aims to boost business by offering personalized services to customers, although market fluctuations have impacted stock performance. Globally, economic recovery remains unbalanced, with varying growth rates across different regions.

SBI faces competition primarily from Bank of India, SBI Bank, and Union Bank of India in India's banking sector. While SBI maintains a dominant position, it faces challenges such as technological advancement, competition from private banks, and shifting customer preferences. However, it continues to expand its services, both domestically and internationally, while focusing on sectors like personal banking, agriculture, NRI services, and corporate banking.

Financially, SBI's performance has been mixed, with fluctuations in net profit and operating expenses. The bank's SWOT analysis highlights its strengths in market share and extensive network, weaknesses in technology adoption, opportunities in expansion and technology enhancement, and threats from competition and regulatory changes. Overall, SBI is undergoing transformation to adapt to changing market dynamics, improve customer experience, and drive growth.

## **DATA ANALYSIS & INTERPRETATIONS**

The survey reveals insights into e-banking users' demographics, behaviors, and sentiments. Predominantly male respondents, mainly aged 20-23, engage in e-banking, with students being the largest occupational group. High usage rates, particularly multiple times a day, emphasize the service's importance. Bill payments and mobile banking are popular transactions.

Overall satisfaction with e-banking is positive, though some encounter occasional responsiveness issues. Despite mixed feelings about customer support, respondents value mobile app availability. Satisfaction with service accessibility across devices is generally high. Security satisfaction is notable, with many expressing satisfaction or neutrality. Despite areas for improvement, the data portrays a predominantly positive perception of e-banking services.

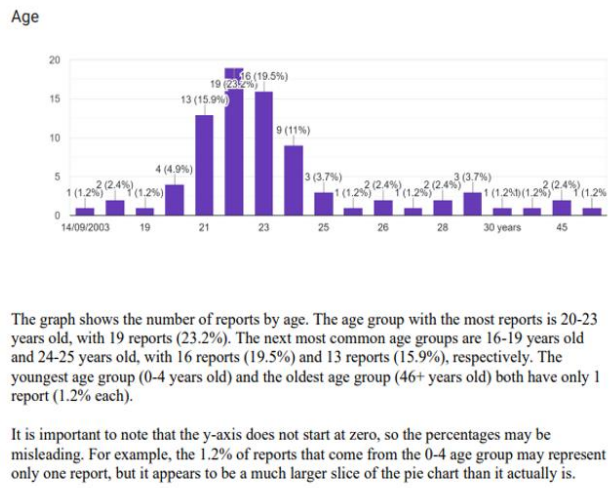
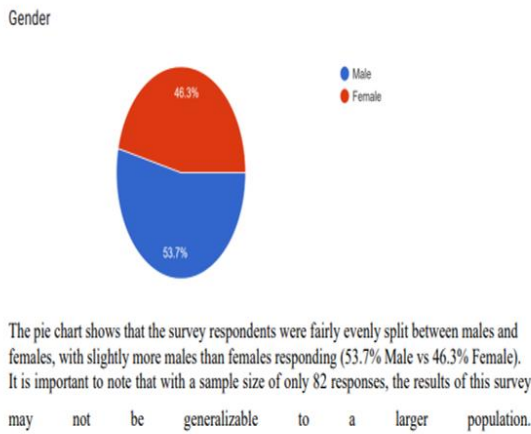


Figure 1: Gender and Age of the population segment.

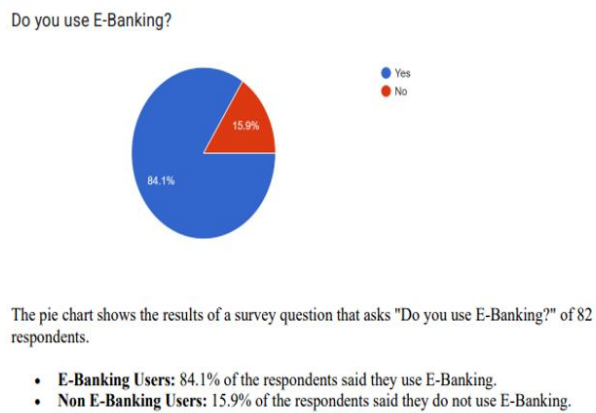
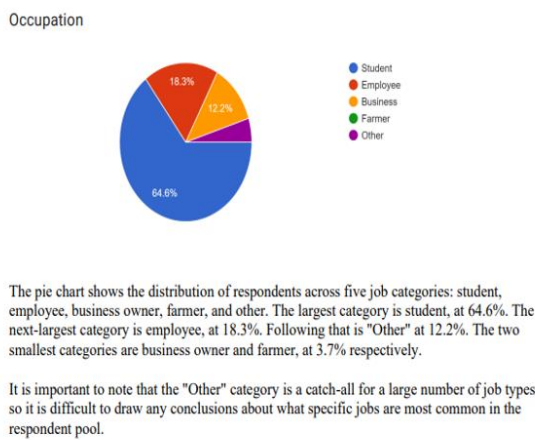


Figure 2: Occupation the population and Usage of E-Banking segment

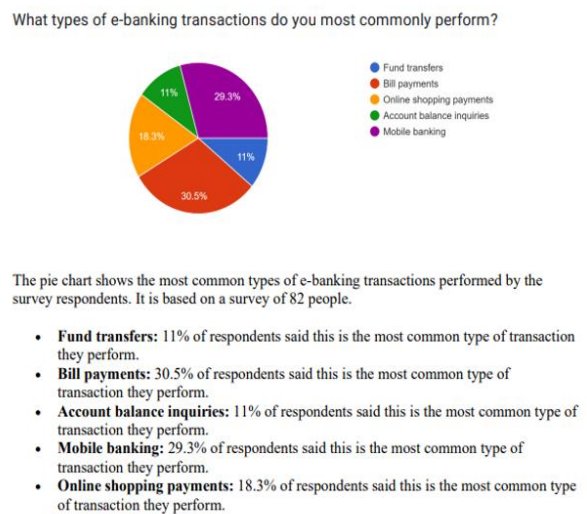
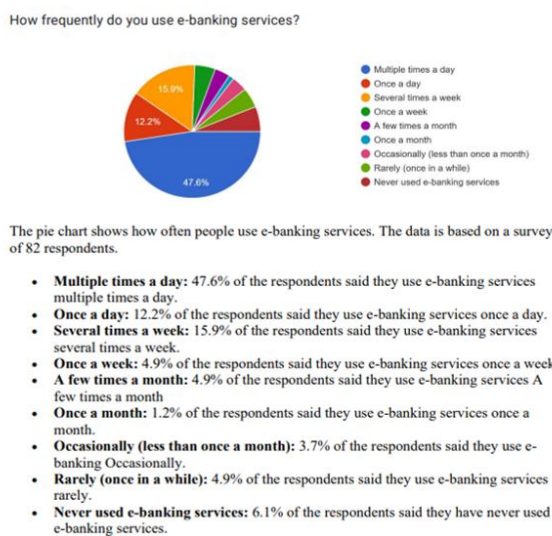
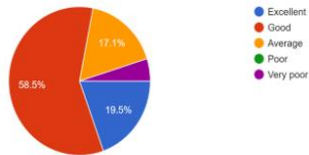


Figure 3: Frequency and Most commonly used E-Banking platform.

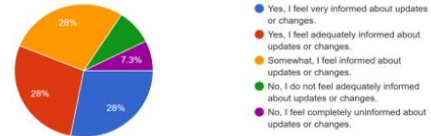
How does customer support for e-banking-related queries?



The pie chart shows how customers rated customer support for e-banking related queries. Here are some observations I can make:

- Very Poor:** 4.9%, is labeled "Very Poor". This indicates the respondents had a very negative experience with customer support for e-banking issues.
- Average:** Another 17.1% of respondents rated customer support as "Average". This means that a combined 78% of respondents rated customer support for e-banking related queries as either "Very Poor" or "Poor".
- Excellent and Good:** The largest slice of the pie chart, respondents rated customer support as "Excellent" (19.5%) or "Good" (58.5%).

Do you feel adequately informed about updates or changes to e-banking services?

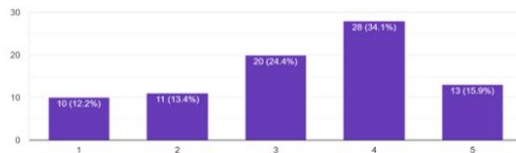


The pie chart shows how informed people feel about updates or changes to e-banking services, based on a survey of 82 respondents.

- Very Informed:** 28% of the respondents said they feel very informed about updates or changes to e-banking services.
- Adequately Informed:** 28% of the respondents said they feel adequately informed about updates or changes to e-banking services.
- Somewhat Informed:** Another 28% of respondents said they feel somewhat informed about updates or changes to e-banking services. Combining these two categories, we see that 56% of respondents feel at least somewhat informed about updates or changes to e-banking services.
- Not Adequately Informed:** 8.5% of the respondents said they do not feel adequately informed about updates or changes to e-banking services.
- Completely Uninformed:** 7.3% of the respondents said they feel completely uninformed about updates or changes to e-banking services.

Figure 4: Customer care support and Updates about the upgrades in the platform using

Rate your overall experience with e-banking services on a scale of 1 to 5.

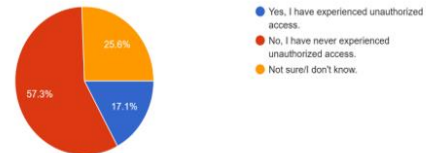


The graph appears to show the average user rating for different mobile banking apps, but it is difficult to say for sure without knowing the axis labels and the source of the data. Here are some observations I can make based on what I can see:

The Graph shows how people rate their satisfaction with the security of mobile banking apps, based on a survey of 1000 respondents.

- Very Satisfied:** 15.9% of the respondents said they are very satisfied with the security of mobile banking apps.
- Satisfied:** 34.1% of the respondents said they are satisfied with the security of mobile banking apps. Combining these two categories, we see that 64% of respondents are satisfied with the security of mobile banking apps.
- Neutral:** 24.4% of the respondents said they are neutral about the security of mobile banking apps.
- Dissatisfied:** 13.4% of the respondents said they are dissatisfied with the security of mobile banking apps.
- Very Dissatisfied:** 12.2% of the respondents said they are very dissatisfied with the security of mobile banking apps.

Have you ever experienced unauthorized access to your e-banking account?

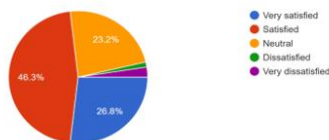


The graph shows the average number of times per month that people use different digital banking features according to a survey of 1,000 people. Here are some observations I can make:

- The most frequently used digital banking feature is checking account balances, with an average of 17.1 times per month.
- People also use mobile banking features to transfer money between accounts (12.2 times per month) and view transaction history (11.4 times per month) fairly frequently.
- Bill payments (8.5 times per month) and depositing checks (4.1 times per month) are used less frequently than the other features listed.

Figure 5: Overall satisfactory levels of consumers E-banking services and experiencing unauthorized.

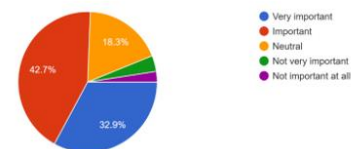
Are you satisfied with the level of customization and personalization options available on the e-banking platform?



The pie chart shows levels of satisfaction with credit card rewards programs, according to a survey of 1,000 people. Here are some observations I can make:

- Satisfied:** The largest slice of the pie chart, at 46.3%, is labeled "Satisfied". This indicates that a significant portion of the respondents are very happy with their credit card rewards programs.
- Very Satisfied:** An additional 26.8% of respondents indicated they are very satisfied with their credit card rewards programs. Combining these two categories, 65.3% of respondents are satisfied with their rewards programs.
- Neutral:** 23.2% of respondents said they are neutral about their credit card rewards programs.
- Dissatisfied:** Only 1.2% of respondents indicated dissatisfaction with their credit card rewards programs.
- Very Dissatisfied:** 2.4%, is labeled "Very Dissatisfied". This suggests that very few respondents are extremely unhappy with their credit card rewards programs.

How important is the availability of mobile banking apps in your decision to use e-banking services?

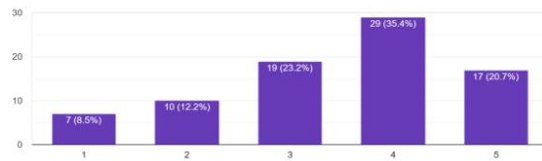


The pie chart shows how important the availability of mobile banking apps is in user's decision to use e-banking services, based on a survey of 82 respondents.

- Very Important:** 32.9% of the respondents said that the availability of mobile banking apps is very important in their decision to use e-banking services.
- Important:** 42.7% of the respondents said that the availability of mobile banking apps is important in their decision to use e-banking services.
- Neutral:** 18.3% of the respondents said that the availability of mobile banking apps is neutral in their decision to use e-banking services.
- Not Very Important:** 3.7% of the respondents said that the availability of mobile banking apps is not very important in their decision to use e-banking services.
- Not Important at All:** 2.4% of the respondents said that the availability of mobile banking apps is not important at all in their decision to use e-banking services.

Figure 6: Overall satisfactory levels of consumers and Importance of E-Banking.

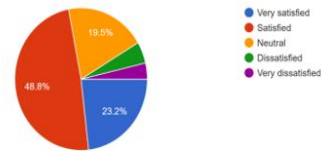
How would you rate your satisfaction with e-banking services ?



The Graph shows how people rate their satisfaction with the security of mobile banking apps, based on a survey of 1000 respondents.

- **Very Satisfied:** 20.7% of the respondents said they are very satisfied with the security of mobile banking apps.
- **Satisfied:** 35.4% of the respondents said they are satisfied with the security of mobile banking apps. Combining these two categories, we see that 64% of respondents are satisfied with the security of mobile banking apps.
- **Neutral:** 23.3% of the respondents said they are neutral about the security of mobile banking apps.
- **Dissatisfied:** 12.2% of the respondents said they are dissatisfied with the security of mobile banking apps.
- **Very Dissatisfied:** 8.5% of the respondents said they are very dissatisfied with the security of mobile banking apps.

How satisfied are you with the accessibility of e-banking services across different devices (e.g., desktop, mobile)?



The pie chart shows how satisfied people are with the accessibility of e-banking services across different devices, based on a survey of 82 respondents.

- **Very Satisfied:** 23.2% of respondents said they are very satisfied with the accessibility of e-banking services across different devices.
- **Satisfied:** 48.8% of respondents said they are satisfied with the accessibility of e-banking services across different devices.
- **Neutral:** 19.5% of respondents said they are neutral about the accessibility of e-banking services across different devices.
- **Dissatisfied:** 4.9% of respondents said they are dissatisfied with the accessibility of e-banking services across different devices.
- **Very Dissatisfied:** 3.7% of respondents said they are very dissatisfied with the accessibility of e-banking services across different devices.

**Figure 7:** Overall satisfactory levels E-Banking Services and Accessibility of E-Banking.

## Findings of E-Banking Survey

This survey provides insights into user demographics, e-banking usage patterns, and user satisfaction with various aspects of e-banking services. Here's a breakdown of the key findings:

### Demographics

- The survey consisted of 82 respondents, with a slight majority being male (53.7%).
- The most common age group was 20-23 years old (23.2%), followed by 16-19 years old (19.5%) and 24-25 years old (15.9%).
- Students comprised the largest occupational group (64.6%), followed by employees (18.3%).

### E-Banking Usage

- A significant majority (84.1%) of respondents reported using e-banking services.
- The most frequent usage patterns involve using e-banking services multiple times a day (47.6%) or once a day (12.2%).
- Mobile banking is the most common type of e-banking transaction (29.3%), followed by bill payments (30.5%) and fund transfers (11%).

### User Satisfaction

- Overall, users expressed satisfaction with the usability (76.8% very satisfied or satisfied) and range of services offered (70.7% very satisfied or satisfied) by their e-banking platforms.
- Customer support for e-banking queries received mixed reviews, with the largest share (78%) rating it as good or excellent, but a significant minority (17.1%) rating it as average or poor.
- A majority of respondents (64%) felt at least somewhat informed about updates or changes to e-banking services.
- Security was a concern for some, with 35.6% of respondents expressing dissatisfaction with the security of e-banking services.
- The availability of mobile banking apps was important for a large portion of users (75.6% very important or important).
- Accessibility across devices received positive feedback, with 72% of respondents satisfied or very satisfied.



## Additional Insights

- A relatively high proportion of respondents (10.3%) reported encountering issues with the responsiveness or speed of e-banking platforms at least several times a week.
- A small percentage of respondents (4.9%) indicated they had experienced unauthorized access to their e-banking accounts.

## SUGGESTIONS

The following suggestions are recommended for enhancing e-banking / internet banking services of banks to the customers

- 1) Banks should take necessary steps to create awareness among rural people about the advantages of e-banking / internet banking services available in the banks.
- 2) The e-banking / internet banking system should be enhanced to make the online enquiry and online payment much more easier to the customers.
- 3) Public sector banks should improve their e-banking / internet banking services to compete with their private sector counterparts.
- 4) Most of the customers have not availed of the e-banking / internet banking services because they do not trust the internet channel presuming it as complicated. So banks may set up a team of personnel to train the customers to get acquainted with internet channel.
- 5) The bank customers have perceived the risk of getting wrong information from e-banking / internet banking services. These illusions should be removed from the minds of the customers by bank people as these factors are the barriers for most of the customers for not adopting these services.
- 6) Though e-banking / internet banking is convenient and easy to use, customers are afraid of adopting these services because they think that using these “services are difficult and complicated”. So, on-site training can be provided to the bank customers who intend to use e- banking / internet banking services.

## CONCLUSION

E-banking creates issues for banks and regulators alike. For our part we will continue our work, both national and international, to identify and remove any unnecessary barriers to e-banking. For their part, banks should Have a clear and widely disseminated strategy that is driven from the top and takes into account the effects of e-banking, together with an effective process for measuring performance against it, Take into account the effect that e-provision will have upon their business risk exposures and manage these accordingly, Undertake market research, adopt systems with adequate capacity and scalability, undertake proportional advertising campaigns and ensure that they have adequate staff coverage and a suitable business continuity plan. Ensure they have adequate management information in a clear and comprehensible format, Take a strategic and proactive approach to information security, maintaining adequate staff expertise, building in best practice controls and testing and updating these as the market develops. Make active use of system based security management and monitoring tools. Ensure that crisis management processes are able to cope with Internet related incidents.

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