

## **ANALYZING HOW E-BANKING SERVICES AFFECT CONSUMER BEHAVIOR**

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### **ABSTRACT**

*The usage of electronic banking services by customers is investigated in this research, with a focus on internet, mobile, and ATM banking. The study used a descriptive research approach to examine several facets of customer preferences, satisfaction levels, and usage patterns within the electronic banking setting. Primary data, which provides both quantitative and qualitative insights into consumer behavior, is gathered via closed-ended surveys and interviews. To understand the impact of information technology on banks' operational and financial performance, relevant literature is reviewed, emphasizing the role that customer satisfaction plays in achieving organizational objectives. Additionally, it highlights the benefits of electronic banking, including its mobility, higher rates, convenience, time-saving features, and enhanced investment management and monitoring. The research intends to analyze customer satisfaction across private and public bank customers, ascertain consumer preferences for online banking services, and assess how demographic factors influence online banking usage. To identify significant correlations between various parameters and electronic banking services, statistical techniques such as the Chi-square test and ANOVA (F-test) are used during data analysis. The findings provide important insights for banking professionals and regulators in enhancing electronic banking services to meet the evolving needs and expectations of customers.*

**Keywords:** *E-banking, electronic banking, consumer behavior, impact, customer satisfaction, convenience, adoption, usage patterns, demographic factors*

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## 1. INTRODUCTION

The development of IT has significantly benefited the banking sector by improving the flexibility and usability of banking processes and services [1]. One of the objectives is to assess the results of previous research on the financial and operational performance of banks after the use of information technology by analyzing relevant literature in this area [2].

Customer satisfaction is a crucial statistic that banks use to assess how effectively the web meets their objectives of gaining new customers, keeping existing ones, and increasing share of wallet [3]. Despite a wealth of research on e-banking and consumer acceptability of online banking, there is still a dearth of consumer-focused exploratory discussion in a few key areas [4]. In order to assess how previous studies measured customer satisfaction, this study will look at relevant literature. Its objective is to identify how the internet channel functions in meeting and exceeding consumers' expectations. This research uses the customer satisfaction framework to assess and quantify how much internet banking contributes to a bank's profitability [5].

Even while information technology have revolutionized business operations, living standards, and the study of the financial sector over the last ten years, they nonetheless provide challenges for both academics and marketers. Along with other social shifts and technical advancements, the financial services sector has seen tremendous upheaval as a consequence of expanding convenience needs and proactive clientele.



**Figure 1: E Banking**

### 1.1.Benefit of E- Banking

- **Convenience-** This far outweighs any drawbacks and is the primary benefit of online banking. Nobody should have to give up the convenience of being able to control trades and make payments with a single click without having to leave their house or place of employment [8]. Online account data monitoring is more beneficial and of greater catalyst than visiting a bank. Many non-value-based tasks, such receiving a check book online, updating data, and calculating loan charges on different financial products, are made much easier by e-banking services.
- **Improved Rates-** This suggests that in exchange for a certain amount of the bank's reserve reserves, customers may be eligible to get reduced financing charges on credits and higher loan fees on shops [9]. Most banks provide low- or no-store accounts in an effort to entice customers to use online banking. They often lessen the penalties for early withdrawals of fixed shops. With less physical labor, this kind of financing produces greater returns. The reduction of the need to hire more personnel and expand office space in order to handle customer service results in significant cost investment money for banks.
- **Mobility-** Another advance in e-banking is portable online banking, which allows users to carry out financial transactions quickly and with unlimited mobility [10].
- **Saving of time and increased comfort** - Without physically visiting the bank, you may do exchanges seven days a week, twenty-four hours a day, using e-banking.
- **Discounts** - One major advantage of utilizing online banking services is that different restrictions are easily accessible [11]. Customers may take advantage of different limitations while using their credit cards or Visas at retail establishments.
- **Monitoring services** - By consulting their updated passbook, customers may monitor their expenditures and alter their financial goals at any time.
- **Services** - Through innovation, using the bank's website and obtaining data has become very simple for both the bank and the customer. Examples of electronic services include advanced adding machines, stock trading platforms, credit arrangement tools, speculative research instruments, and utility planning and gauging devices. In addition, the most of banks offer online duty arrangement frameworks and services.

- **Management of funds** - Clients may get their trade history for different records and do their own "consider the possibility that" evaluations prior to completing any web-based swap. It is thus possible to pay CEOs more.

### 1.1.Objectives of the study

- To determine which electronic banking services clients prefer to use.
- To determine whether there is a discernible difference between public and private bank clients' satisfaction levels with electronic banking.
- To assess how the demographics of customers affect the rate at which electronic banking is used.

## 2. LITERATURE REVIEW

**Hammoud et al., (2018) [12]** research looks at the relationship between customer loyalty and the quality of e-banking administration in the Lebanese financial sector. The authors discuss the development of e-banking and its significance in the sophisticated financial sector, highlighting the growing trend of customers migrating to electronic channels for banking services. Citing past studies that identify administration quality as a fundamental factor in determining customer loyalty and steadfastness, they emphasize the importance of administration quality in e-banking. Investigations are conducted on important aspects of the quality of e-banking administration, such as physical assets, confirmation, empathetic response, and reliability. The authors also examine theoretical frameworks and models, such as the Innovation Acknowledgment Model (Cap) and the Servqual model, that are used to assess the quality of e-banking administration. The poll also discusses how risk, security, and trust affect customers' perceptions of the caliber of e-banking administration.

**Rita et al., (2019) [13]** research examines the relationship between client behavior in online buying, customer loyalty, and the quality of e-administration. The writers discuss how creative advancements and shifting consumer preferences have fueled the rapid growth of online purchasing. The degree to which online platforms meet users' expectations for site functionality, timeliness, security, and general assistance delivery is known as e-administration quality. Previous research has identified the quality of e-administration as a critical factor influencing customer devotion and loyalty in online retail environments. The poll delves into several aspects of the quality of e-administration, such as the structure of the website, ease of

navigation, security of the exchange, response to customer needs, and reliability of service. The focus also looks at the relationship between the quality of e-administration, customer loyalty, and the ensuing customer behaviors, such as purchase objectives, rehash buy conduct, and constructive informal exchange suggestions. The authors discuss theoretical frameworks such as the Assumption Affirmation Model and the Innovation Acknowledgment Model in order to understand the ways in which client behavior in web-based settings is influenced by customer loyalty and e-administration quality.

**Shareef et al.'s (2018) [15]** research looks at the factors that affect how buyers respond to flexible financial services at different phases. The Innovation Acknowledgment Model (Cap), which identifies perceived usefulness, ease of use, attitude toward flexible banking, and social purpose as important factors influencing reception behavior, is a crucial component of the study. Additionally, the poll looks at topical and individual aspects including creativity, perceived risk, faith in innovation, social effect, and institutional variables. The evaluation acknowledges that not every consumer has the same reception contact, and that certain factors influence decision-making at every level. The authors provide valuable insights for professionals and experts who want to understand and operate with flexible financial reception.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Research Design**

A descriptive study methodology was used to look at how customers behaved while utilizing electronic banking. Primary data was obtained via closed-ended questionnaires and interviews.

- **Close-ended questionnaire** - This would be configured to gather numerical data on customers' use of online banking services. On the questionnaire, respondents would be able to choose from pre-defined answer options, simplifying the process of gathering and analyzing data. It is possible to inquire about a variety of aspects pertaining to ATM, mobile, and internet banking services, such as frequency of usage, satisfaction levels, preferences, and views.
- **Interviews** - In addition to completing the questionnaire, a selection of respondents would also be interviewed. These interviews would provide the chance to dive more deeply into the experiences, opinions, and attitudes of clients about electronic banking. Using open-

ended questions to enable respondents to share their thoughts in their own words might provide richer qualitative data.

### **3.2. Sample Design**

The study's objective was to examine customer behavior, preferences, and perceptions about electronic banking services, including ATMs, mobile banking, and internet banking. A total of 120 respondents were selected utilizing the following four major financial institutions: State Bank of India (SBI), Punjab National Bank (PNB), Housing Development Finance Corporation (HDFC), and Industrial Development Bank of India (IDBI). It is likely that the respondents were chosen from Chandigarh using the convenience sample technique. The sample size of 120 respondents allowed for a detailed analysis of use patterns and preferences while providing insightful information on the attitudes and actions of Chandigarh's electronic banking clients.

### **3.3. Analysis**

Several statistical analyses were performed on the data gathered for the research on how customers use electronic banking in order to glean important insights. The chi-square test was a crucial analytical method for determining the relationship between category variables. Through this test, researchers were able to examine possible correlations between several attributes, including customer satisfaction levels and frequency of usage of online banking services.

Additionally, the research used ANOVA (F-test), a statistical technique for comparing means across several groups, to examine variations in customer behavior or opinions between users of various electronic banking services or across bank customers. This made it possible for researchers to pinpoint any notable differences in customer attitudes or behavior across various banking facilities or service categories. In addition, the average score for a few categories was determined using the weighted arithmetic mean, which gave a succinct overview of respondents' opinions or experiences with electronic banking. By using these statistical approaches, the research sought to provide a thorough examination of customer behavior in the context of electronic banking, providing insightful information to both academics and banking professionals.

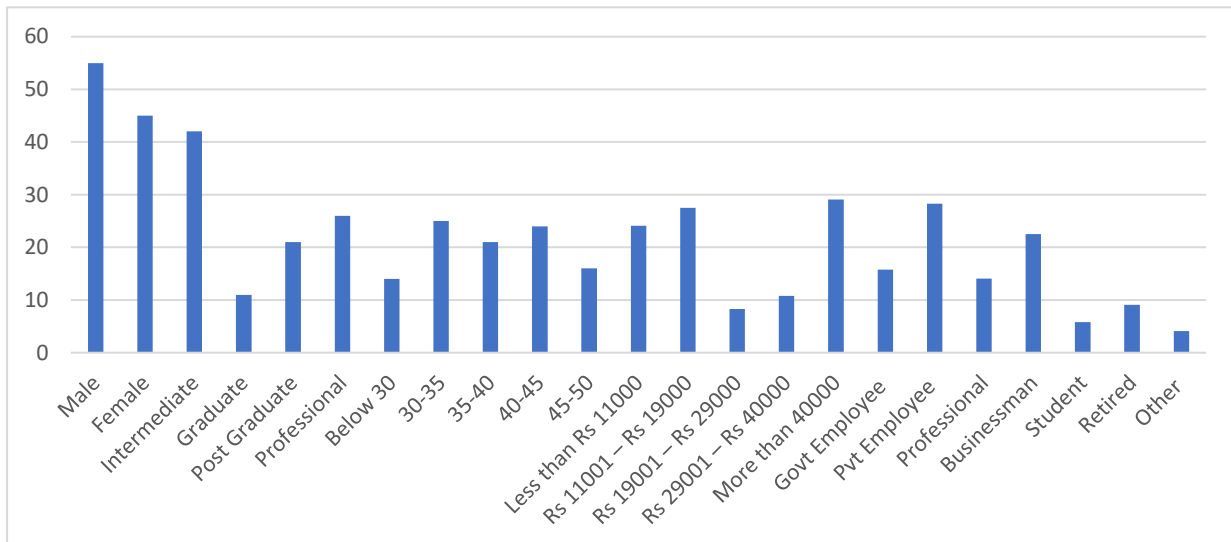
## 4. DATA ANALYSIS

### 4.1. Demographics of Respondents

**Table 1: Demographic Respondent**

Particular	Frequency	Percent
<b>Gender</b>		
Male	65	55
Female	55	45
<b>Education</b>		
Intermediate	50	42
Graduate	14	11
Post Graduate	25	21
Professional	31	26
<b>Age Group</b>		
Below 30	17	14
30-35	30	25
35-40	25	21
40-45	29	24
45-50	19	16
<b>Monthly Income</b>		
Less than Rs 11000	29	24.1
Rs 11001 – Rs 19000	33	27.5
Rs 19001 – Rs 29000	10	8.3
Rs 29001 – Rs 40000	13	10.8
More than 40000	35	29.1
<b>Profession / Occupation</b>		
Govt Employee	19	15.8
Pvt Employee	34	28.3
Professional	17	14.1
Businessman	27	22.5

Student	7	5.8
Retired	11	9.1
Other	5	4.1



**Figure 2:** Graphical Representation on the percentage of Demographic Respondent

The data provides insights into the demographics of a sample population, focusing on gender distribution, education levels, age groups, monthly income, and professions/occupations. The sample is fairly balanced, with 55% male and 45% female respondents. The majority have intermediate education (42%), followed by post-graduates (21%), professionals (26%), and graduates (11%). The age distribution is spread across different age groups, with a higher representation in the 30-35 age bracket (25%). Monthly income ranges from less than Rs 11,000 (24.1%) to more than Rs 40,000 (29.1%). The profession/occupation is diverse, with respondents representing various sectors including private employment (28.3%), business ownership (22.5%), and government employment (15.8%). This data highlights the need for nuanced analysis to understand the dynamics and behaviors within this group.

#### 4.2. Preference Of Electronic Banking Services

Customers place a high value on internet, mobile, and ATM banking services, according to the report. The most important services are cash withdrawal, bill payment, and check book request; small statements and a single card for all accounts are less important. Fund transfers, mini



statements, check book requests, and balance inquiries are among the mobile banking services. Contact customer service and cell top-up, on the other hand, are less important or common. Online banking facilities encompass bill payment, credit card statement access, and third-party transfer. Because they make online financial management convenient and useful, these services are widely respected. Less important or less commonly viewed documents are account statements and FD requests and enquiries. The information makes clear how banks must modify their service packages to accommodate the wide range of wants of their customers.

### 4.3. Hypothesis Testing

H01 = Regarding ATM service, there is no discernible difference in the satisfaction levels of consumers of private and state banks.

H02 = Regarding mobile banking, there is no discernible difference in the satisfaction levels of private and public bank customers.

H03 = Regarding Internet banking, there is no discernible difference in the satisfaction levels of private and public bank clients.

**Table 3:** Anova Test

Hypothesis	Electronic Banking	Anova (F – ratio)				Results
		Calculated Value	Degree of Freedom	Level of Significance	Tabular Value	
H01	ATM	4.20	(1,3)	4%	6.51	Accepted
H02	Mobile Banking	0.229	(1,3)	4%	6.51	Accepted
H03	Internet Banking	7.21	(1,3)	4%	6.51	Rejected

H04 = The respondents' gender has no bearing on how frequently they use online banking services

H05 = The respondents' age has no bearing on how frequently they use online banking services.

H06 = The respondents' income has no bearing on how often they use online banking services.

H07 = Respondents' level of education has little bearing on how frequently they use online banking services.

The data shows that there is a significant association between ATM services and test criteria, as indicated by the results of hypothesis tests. Hypothesis H04, which tests the relationship between ATM services and test criteria, has a calculated chi-square value of 25.21, exceeding the 4% level of significance. Hypothesis H05, which tests the relationship between ATM, Mobile Banking, and Internet Banking, has a calculated chi-square value of 4.95, surpassing the 4% level of significance. Hypothesis H06, which tests the relationship between ATM, Mobile Banking, and Internet Banking, has a calculated chi-square value of 5.70, falling below the 4% level of significance. Hypothesis H07, which examines the relationship between ATM services and test criteria, has a calculated chi-square value of 9.31, exceeding the 4% level of significance. The data suggests that the relationship between factors may vary depending on the specific context and combination of factors being examined.

## **5. Conclusion**

The report highlights how crucial electronic banking services are to the banking sector's capacity to meet the demands of contemporary consumers. It highlights the various benefits of internet banking, including more mobility, time-saving tools, and better rates and convenience. Customers choose ATM, mobile, and internet banking services; the most appreciated functions are cash withdrawal, bill payment, and balance inquiries. These findings demonstrate the significance of electronic banking in raising consumer satisfaction and promoting industry adoption. Additionally, the data demonstrates that different demographic factors, such as gender, age, income, and education, have varying degrees of effect on the adoption and use rates of electronic banking services. Certain characteristics, like age, have weak correlations with the use of services, whereas other criteria, like income and education, have substantial

correlations with the use of services. These connections imply that tailored strategies are required to effectively cater to a range of customer categories. In conclusion, the research emphasizes how important it is for banks to continuously improve and modify their online banking offerings in order to keep up with shifting customer preferences and demographic trends. This will ensure that, in the age of digital banking, they remain competitive and relevant.

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