



# “Customer Perception and Performance of Digital Banking Services in Commercial Banks: A case study of Punjab National Bank Ranchi, Jharkhand”

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## **ABSTRACT**

Digital banking has changed the way banking services are delivered and accessed by customers. It allows people to use banking facilities anytime and anywhere through digital platforms without visiting a physical branch. Traditional methods such as cheques and demand drafts are gradually being replaced by online transactions and digital payment systems. To support this change, commercial banks are investing in digital transformation initiatives. These initiatives help banks improve their efficiency, service quality, and overall performance. Studies show that digital transformation can increase revenue and improve operational effectiveness. Although banks may face higher costs during the initial stages of implementation, these costs generally decrease over time. The success of digital transformation also depends on factors such as bank size, age, customer awareness, and digital infrastructure. Research has found that the adoption of digital payments is influenced by more than just the features of the technology. Business environments and organizational factors also play an important role in customer acceptance. Understanding these factors helps banks develop better digital services. Digital transformation has become a key strategy for maintaining competitiveness in the banking sector. It enables banks to meet changing customer expectations and improve service delivery. Therefore, digital banking continues to play an important role in the growth and development of modern commercial banks.

**KEYWORDS:** Digital banking, Digital transformation, Bank performance, Digital payments, and Banking efficiency.

## **Introduction**

Across of the year, the banking sector was change lots of thing due to the development of digital banking. Back in this day, all the banking happenings are done manually. Customer was visiting the bank branch in every small task like withdrawing cash, depositing money, transferring funds, or checking their balance. This process takes lots of time and effort and sometimes customer hard to stand in long time in bank branch.

With the use of new technology, banking sector has become easy and quick. Digital banking helps people use Banking services through mobile phones, computer and ATMs. Now, Customer can send money, Bills, check their balance, and do many other banking works from the home without visiting the bank.

In India, the use of digital banking has increased rapidly the past few years. Services like ATMs, mobile banking, Internet banking and UPI are not widely used by people for their transaction. The increases in smartphone uses the Internet availability Has also supported the growth of digital banking. Government initiatives promoting digital payment and cashless economy have further encouraged people to adopt these services.

Digital banking is very useful due to its saving times of customers. Allows people to use banking services anywhere and from anytime. On the other hand, a lot of Customer still facing problem due to have not proper knowledge about how to use Digital banking services, mainly in rural areas. Some people feel fearful because of risks like online fraud, hacking and misuse of their personal information. Digital banking services can also become difficult to use due to of technical issues such as slow internet connection and system errors.

Customer preparation plays a very important role in the success of digital banking services. If customers feel that Digital banking digital banking is safe, Easy to use, and reliable, they will be become continuously basic. But If customers are facing any types of problems so that we not trust the system, they can avoid the using of digital banking services.

For that reason, it Is important to understand the feedback of customers about the digital banking services it is also necessary to check how will be performing these services. This will be happening in back to improve their services and also increase customer satisfaction.

This study are focuses on Punjab National Bank (PNB) in Ranchi, Jharkhand. The bank provides different digital banking services to its customers. The study aims to comprehend the customer response about these services to calculate their performance, and find out the common problems to faced out by customer. And make solution to it.

In summary, digital banking has made banking doings more rapidly and more convenient. For that reason, some challenges still remain. To ensure growth, banks need to focus on customer feedback and improve the quality of their digital banking services

## **DIGITAL BANKING IN THE CONTEXT OF RANCHI**

In current years, digital banking services has become very common in Ranchi because of well technology, internet services, and government support for digital payments. People are now using mobile banking, internet banking, ATM services, and UPI for daily financial activities such as money transfer, bill payment, and online shopping. These services have reduced the necessity to visit bank branches and made banking more simple, quick, and convenient.

Both urban and semi-urban customers in Ranchi are gradually implementing digital banking because it saves time and provides banking facilities of customers at any time of the day. At the same time, some difficulties still remain, especially in semi-urban areas, where people face problems such as absence of digital knowledge, weedy internet connection, and fear of online fraud. Even with these challenges, the use of digital banking in Ranchi is increasing steadily and helping more people access modern banking services easily.

## **LITERATURE REVIEW**

1. **Natarajan, (2021)** focuses on how contented customers are with the digital banking services obtainable by banks in the commercial banks. The purposes of this study are to recognize the factors that touch Commercial banks' adoption of digital banking and to determine that how satisfied these banks' customers are with their use of digital banking. The researcher also attempted to explore client awareness of digital banking. It is found that banks are regarded to be profoundly reliant on message alerts to market their digital banking products and services; it is suggested that they

supplement this with other modalities such as print media, hoardings, email, and so on in order to increase digital banking usage and awareness. Bankers must guide and instruct these consumers; they can also use video performances in bank locations. These should be meetings, conferences, and presentations on how to use a digital banking carefully, particularly for individuals who are unaccustomed with ATMs or computers.

2. **Shankar et. al (2018)** examines about customer technique on digital banking products in Jharkhand. While ATM is become well-known for the cash transactions and various other services like digital are part of the services accessible in ATM. This study would certainly provision the branches of banking to appraise the receptiveness among the customers about banking technology services and products and also helps to take essential steps towards improvement in the modern banking. This research is based on survey method, where the data is collected with the help of Questionnaire. The major purpose of the study is to evaluate the level of customer receptiveness of technological services provided by banks in rural South India, to identify the objective of using such services, to know the determinants of using such services and also to regulate which factor is more prejudiced for implementing the digital banking services in Jharkhand.
3. **Thanga Glara & Eugene Franco, (2017)** conveyances out a survey to determine how satisfied Tirunelveli District consumers are with the e-banking services provided by public and private sector banks. This research is only limited to Ranchi district; Jharkhand the study's goals are to identify the variables influencing the uptake of digital banking services provided by public and private sector banks and to examine the degree to which clients of these institutions are satisfied with those services. Convenience sampling was employed for this investigation. The study is based on primary data collected using a questionnaire. The study's findings show that both public and private sector bank customers are equally happy with the bank's ATM services. Even they are pleased with the private sector banks' digital banking services. to know the factors of using such services and also to normalize which factor is more narrow-minded for applying the digital banking services in Jharkhand.
4. **Alakanti,(2017)** objectives to evaluate the calibres of digital banking services from the viewpoint of customers. A homogeneous questionnaire of 26 excellent items is distributed to different target groups. Abundant statistical techniques, including factor analysis and Analysis of variance (ANOVA) are used to collect the data. The results show that customers are more satisfied with service quality in terms of dependability than with accessibility, user-friendliness, security, and responsiveness. In addition to ranking various attributes, the study offers lenders recommendations for how to concentrate on those that require improvement. These are the essential elements of service quality for e-banking client happiness, according to the poll. The researcher also attempted to explore client awareness of digital banking. Therefore, the ease of use of digital banking platforms, awareness of digital banking services, and accessibility of digital banking platforms are important factors in customer perception.
5. **Kumar & Ranjini,(2017)**, Transports out a survey to determine how customers feel about the digital banking services obtainable by the chosen banks and the service characteristics of the digital banking services in the areas of dependability, responsiveness, security, simplicity, accessibility, and efficiency. The study will also examine the difficulties users of e-banking services encounter. The study will assess the relationship between the transactions and dealings carried out by clients using e-banking services, as well as the benefits and drawbacks of using these services. The research is conducted in the selected nationalized and private sector banks in Bangalore City. The respondents of the study were the customers of the banks who are using various e-banking services such as ATM / debit card, credit card, online banking, mobile banking and Tele-banking. The study will also examine the difficulties users of e-banking services encounter.
6. **(Patil, 2014)** contemporary their study in which they have tried to make a test to comprehend the factors affecting customer gratification in commercial banks in India limiting the research to people of PNB. Additionally, they have made an assessment between public and private banks with regard to factors influencing level of customer satisfaction. The study aims to get an in-depth thoughtful of factors manipulating level of satisfaction of customer which he flourishes after his Bank. The current study is based on primary method using questionnaire, where data of 100 respondents i.e. 100 customers each public sector bank (PUNJAB NATIONAL BANKS) and private sector banks were taken as a sample from cities of Punjab such as RANCHI. Expediency sampling method was used to collect the sample. The analysis concludes that banks though bit conservative in adopting technology as compare to commercial banks that have more customer faith in their banking style.

Commercial Banks on the other hand satisfies and attracts customers by giving latest knowledge and more innovative channels and substitutions for investments.

7. **Irabatti (2013)** seeks to evaluate the digital banking service quality in Ranchi, one of the that are rising quickly. This study principally contrasts the digital banking services offerings of Punjab national bank of INDIA', two of the top private sector banks. The study was based on primary data using structured questionnaire of the target customer group i.e. who are using the e-banking services of either PUNJAB NATIONAL BANK OF India. The data 100 customers i.e. 100 customers of each bank were taken as a sample using convenience sampling method. The research primarily examines the efficiency, responsiveness, reliability, and privacy of consumer information—the four key components of online banking services. It is derived that as ICICI is first bank in India to introduce online banking services, it is superior in the quality aspect as compared to SBI; although since last few years, SBI came out as a leading public sector bank offering e-banking services successfully.
8. **Bhosale & Nalawade, (2012)** consume commenced a proportional analysis of nationalised banks in the Satara region with the goal of examining the ATM, DIGITAL, and mobile banking services that those banks' clients utilise. The primary goals of the paper are to evaluate the ATM, digital banking, and mobile banking services that clients of the nationalised bank utilise, as well as to examine the idea of Digital banking and its compensations and difficulties. Five nationalised banks, including the Bank of India, the State Bank of India, the Bank of Baroda, the Union Bank of India, and the Central Bank of India, have been chosen as the sample for this study. The managers and operate of a few selected banks in the Satara region are experimental and interviewed to get the primary data. Additionally, secondary data from the years 2008–2009 to 2010–2011 was congregated from summary intelligences, emails, circulars, books, alerts from the RBI, and annual reports from banks.
9. **Singh & Arora (2011)** challenges to examine how clients perceive the excellence of services, as well as business-based and utilisation of digital banking services in commercial banks. They would measure the degree of IT implementation in the public sector, the commercial sector, and foreign banks in this period of digital banking services as well with the aid of the current research paper. The current study account was written with the intention of examining the extent to which these banks' customers use online banking services and recognizing the key variables that significantly influence customer satisfaction with the calibre of services. The current study was conducted at Delhi's public, private, and foreign banks. For the purpose of selection of sample, multistage random sampling was applied. The study was planned to be undertaken in five different zones of Delhi (East, West, North, South, and Central)
10. **Asgarian (2010)** determined that commercial banks were level-headedly more effective to attain fulfilment of customers than the commercial sector banks. In another way, commercial bank services quality towards expectations of customers was much closer than it was with the commercial banks service quality towards opportunities of customers. Here the study is conducted to scrutinize whether commercial sector banks have more gratification of customers. The study is conducted by taking the interview of 150 customers of commercial sector banks. It has been derived from the data analysis that customer satisfaction private banks are higher than that of commercial sector banks. Customers 'expectation of service quality is attained by private sector more professionally as compared to commercial sector banks.

### **RESEARCH GAP**

Most of the banking studies are made in general or urban areas. Very little research has been made in Ranchi, Jharkhand. Less explored are the digital banking services of public sector banks, specifically Punjab National Bank. Most previous research has either considered Customer Perception or Service Performance, but seldom both. Customer awareness, difficulty in usage, difficulty in adopting digital banking is not explored in depth. Hence, the present study attempts to fill these gaps by assessing the customer perceptions, services and challenges of digital banking in public sector banks of Ranchi.

## **RESEARCH QUESTION**

1. What opinions do customer have about online banking?
2. How effective are the digital banking services provided by Punjab national bank?
3. What are the major factors influencing customers adoption of digital banking services?

## **OBJECTIVE OF THE RESEARCH**

1. To study customer perception towards digital banking services.
2. To examine the level of awareness among customers regarding digital banking.
3. To analyse the performance of digital banking services in Punjab National Bank.

## **RESEARCH METHODOLOGY**

This paper has used both primary and secondary sources of information. It collected 150 samples from customers of banks in urban and semi-urban area of Ranchi district. For this study we have applied purposive sampling. The survey has been conducted with the help of a structured questionnaire. The respondents are both types of customers, online and offline, respondent. The statistical analysis technique used is descriptive. Panjab national banks (PNB) for data analysis and interpretation.

### **1. Research design**

In order to comprehend how consumers view and utilize digital banking services, the study employs a descriptive research design.

There is usage of both primary and secondary data. While secondary data is gathered from books, journals, and websites, primary data is gathered via a questionnaire.

### **2. DATA COLLECTION:**

Data collection is an important part of any research study as it helps gather the information required to achieve the research objectives. For this study, both primary and secondary data sources were used to ensure reliable and accurate findings.

- **Primary Data Collection:** The primary data was collected from the customers of Punjab National Bank, Ranchi, Jharkhand. Structured questionnaire with simple and close ended questions was used to collect data on customer awareness, satisfaction, perception and challenges about digital banking services. In some cases, personal interactions were also performed to better understand the experiences of customers. Respondents were chosen from a wide variety of age groups, educational levels and occupations to provide a fair cross-section.
- **Secondary Data Collection:** The secondary data was collected from various published sources like books, research journals, articles, reports and reliable online sources related to banking and digital banking services. This information was useful in understanding the theoretical background, previous research findings and recent developments in the field of digital banking.

## **Tools and Techniques of Data Analysis**

- The collected data was organized, classified, and analyzed using simple statistical techniques.
- Percentage analysis was used to interpret the responses of customers.
- Tables were prepared to present data in a systematic manner.
- Pie charts and bar diagrams were used for graphical representation of data.
- These tools helped in understanding customer awareness, satisfaction, perceptions, and the effectiveness of digital banking services.

## DATA ANALYSIS

Demographic analysis is the first level of doing any research, which helps the researchers to about the employee's personal details such as age, salary, qualification, positions, etc. this question from the customer helps the researcher to know about the customer workplace.

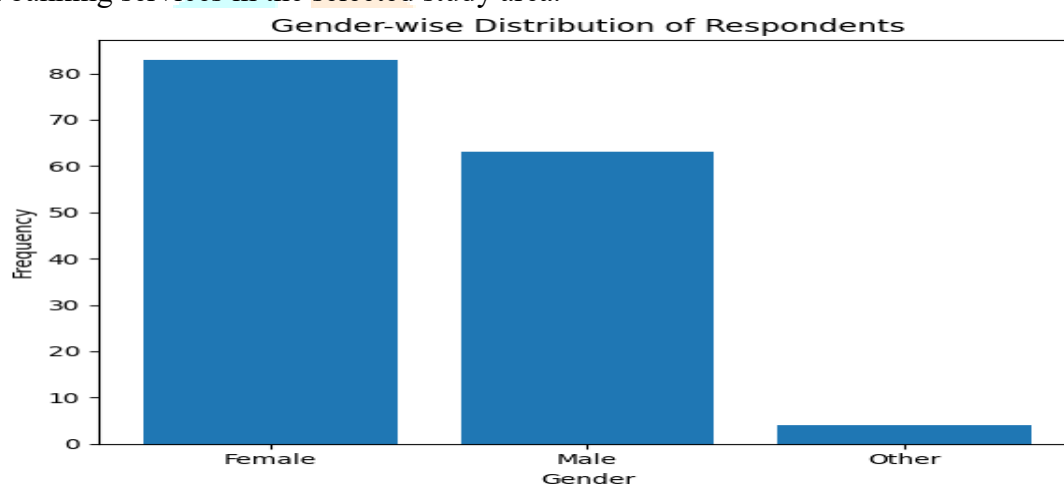
### 5.2.1 Gender of Respondents

**TABLE:1**

Age of the respondent	Frequency	Percentage
Female	83	55.3
Male	63	42.0
Other	4	2.6

**Source-** Primary data

This table shows the gender distribution of the respondents shows that the most respondents are females (83 respondents; 55.3%). The male respondents make up 63 respondents (42.0%) while only 4 respondents (2.6%) fall under the "Other" category. This shows that female customers were more participative in the study than male and other respondents. Data show that women are more involved to use or respond to digital banking services in the selected study area.



Sources- Computed by research from MS excel

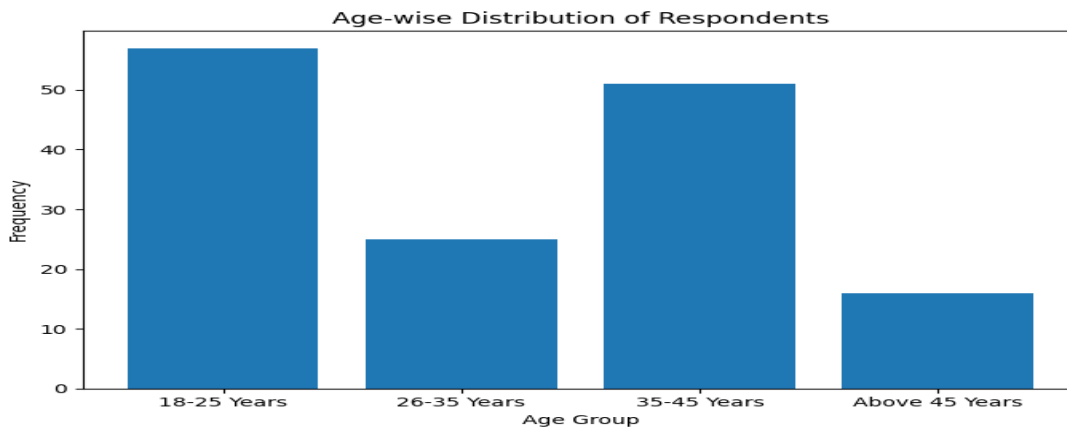
### Age Group of Respondents

**Table 2**

Age Group	Frequency	Percentage
18-25Years	57	38.0
26-35Years	25	16.6
35-45 Years	51	34.0
Above-45 Years	16	10.6
TOTAL	150	100.0

**Source-** Primary data

This table shows the Most of the respondents are 18–25 years age group (38.0%) with 57 respondents which shows that young customers are actively using digital banking services. The 35 - 45 years category is 51 respondents (34.0%), which indicates an active involvement of middle-aged users, as well. The group 26-35 years has 25 respondents (16.6%) and the category Above 45 years has the least participation with 16 respondents (10.6%). The total sample size of the research is 150 respondents (100%). The analysis reveals that younger and middle-aged customers are more likely to use digital banking services than older customer.



Sources- Computed by research from MS excel

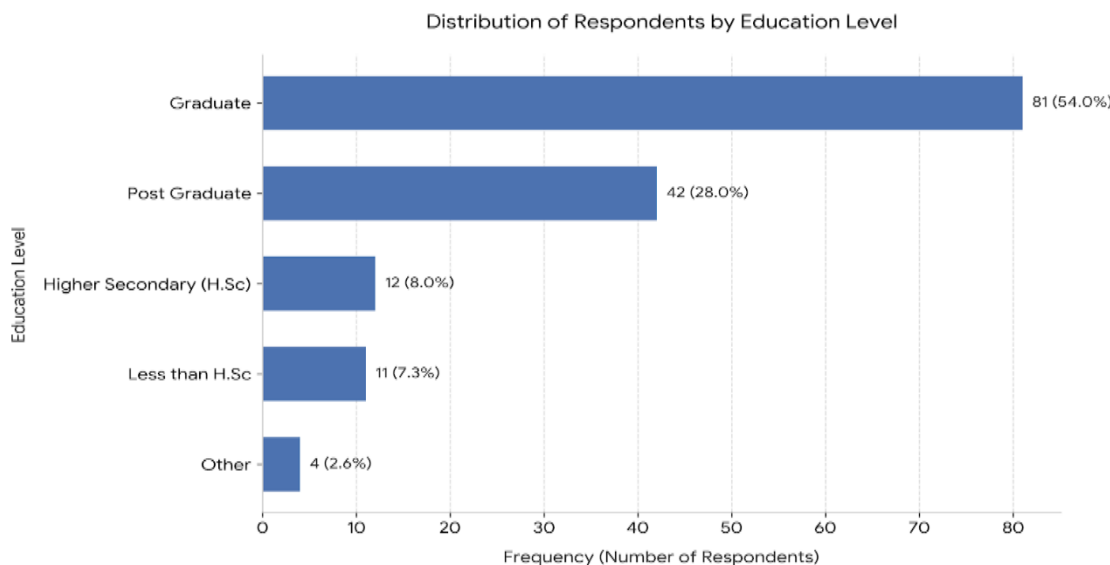
**EDUCATION LEVEL OF THE ESPONDENTS**

**Table-3**

Education level	Frequency	Percentage
Less the highest second .H.Sc	11	07.3
Higher secondary H.Sc	12	08.0
Graduate	81	54.0
Post graduate	42	28.0
Other	4	02.6

Source -Primary data

This table shows the educational qualification of the respondents indicates that the majority of them are graduates, which is 81 Respondents (54.0%), meaning that most of the users of digital banking services are well educated. Postgraduates accounted for 42 (28.0%) of respondents, indicating a significant presence of highly educated individuals. Higher Secondary (H.Sc) education respondents are 12 (8.0%) and Less than Higher Secondary education respondents are 11 (7.3%). The “Other” category is made up of only 4 respondents (2.6%). The analysis finds that educated customers, especially graduates and post graduates, use digital banking services more frequently.



Sources- Computed by research from MS excel

**SALARY OF THE RESPONDENT**

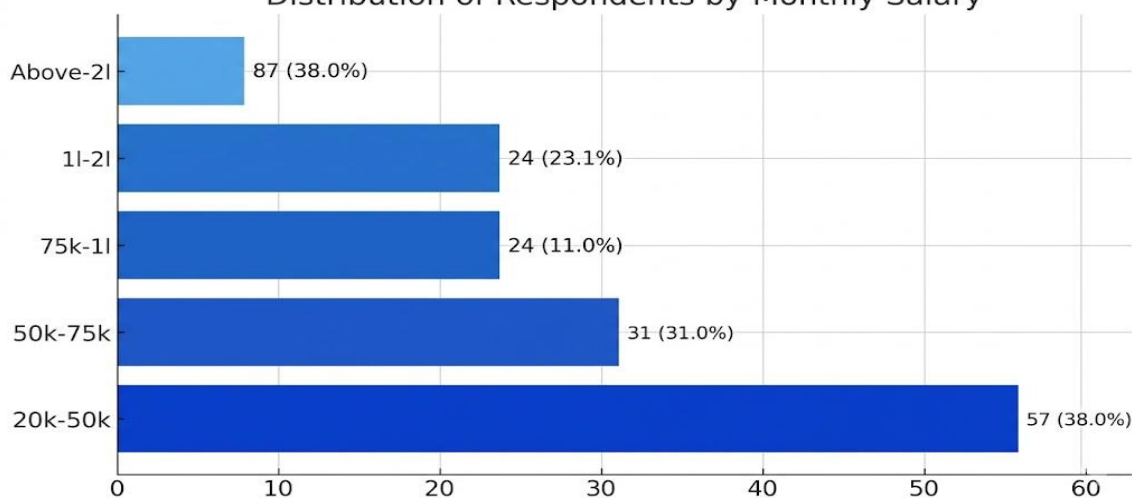
TABLE-4

Salary	Frequency	Percentage
20k-50k	57	38.0
50k-75k	31	20.6
75k-1l	24	16.0
1l-2l	24	16.0
Above-2l	8	05.3

**Source**-Primary data

This table shows the distribution of the respondents' salary is shown in the table. Of the total respondents, the highest percentage, i.e., 38.0% of the respondents (57 respondents), earn between ₹20,000–₹50,000. This suggests that the majority of the respondents are in the lower middle-income group. About 31 respondents (20.6%) earn between ₹ 50,000- ₹ 75,000. Further, 24 respondents (16.0%) are in the salary range of ₹75,000–₹1 lakh and another 24 respondents (16.0%) earn in the range of ₹1 lakh–₹2 lakh. The smallest group in the study is of only 8 respondents (5.3%) earning a salary above ₹2 lakh. The data overall suggests that the majority of the respondents belong to the moderate-income level while a relatively a smaller number of respondents belong to the higher income category.

Distribution of Respondents by Monthly Salary



Sources- Computed by research from MS excel

**HYPOTHESIS TESTING: REGRESSION**

A statistical method for determining the relationship between dependent and independent variables is regression analysis. It aids in comprehending how many elements affect how well digital banking services work and are used. The influence of customer perception, convenience, security, dependability, and accessibility on digital banking performance at Punjab National Bank is investigated in this study using regression analysis.

**TABLE 1: ANNOVA ANALYSIS**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.792	1	25.792	82.833	<.001 <sup>b</sup>
	Residual	45.150	145	.311		
	Total	70.942	146			

Sources- computed by researcher from SPSS.

The ANOVA table of the regression analysis shows the overall significance of the regression model. The regression sum of squares is 25.792, while the residual sum of squares is 45.150. The calculated F-value is 82.833 with a significance value of less than 0.001.

Since the significance value is less than 0.05, the regression model is statistically significant. This indicates that there is a significant relationship between the independent and dependent variables in the study related to digital banking services in Punjab National Bank.

**TABLE 2: COEFFICIENT TEST**

COEFFICIENT						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.169	.180		12.038	<.001
	VAR00001	.436	.048	.603	9.101	<.001

Sources- computed by researcher from SPSS.

The coefficients table in regression analysis explains the effect of the independent variable on the dependent variable. It presents the values of regression coefficients, standard error, beta value, t-value, and significance level. These values help in determining the strength and direction of the relationship between the variables.

In this study, the coefficients table is used to analyse the impact of customer perception on the performance of digital banking services provided by Punjab National Bank and to test the significance of the hypothesis.

### **OBJECTIVES ACHIVED**

Since the significant value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. Through the study, the objectives have been met through analysis of the customer perception and the performance of digital banking services of Punjab National Bank, Ranchi, Jharkhand. It is found out that majority of the customers know about digital banking services and they also utilize these services in the form of mobile banking, internet banking, ATM services, UPI, and online transfer of funds. Also, it was observed through the study that the customer perception regarding digital banking is positive as this process is convenient, time-saving and customers are able to make banking services available anytime from anywhere. The customers were satisfied with the transactional processes of digital banking.

Moreover, the performance of digital banking services was also investigated, which showed that Punjab National Bank has improved in providing digital banking services to the customers. There were also some difficulties identified, including the problems related to network, technology, safety of transactions, and lack of digital banking knowledge amongst customers.

### **Findings of the Study**

The majority of respondents, according to the report, are between the ages of 21 and 30, suggesting that younger consumers utilize digital banking services more regularly. Compared to female respondents, men respondents took part in the survey more actively. Most clients are aware of Punjab National Bank's digital banking offerings, which include ATM, UPI, internet, and mobile banking. The most popular digital banking services among consumers were found to be mobile banking and UPI payments. The majority of respondents said they were satisfied with the digital banking services and thought they were dependable, simple to use, and practical for everyday banking tasks. However, it was discovered that customers' biggest challenges were technical and network-related. The results of the hypothesis testing also showed that customer perception and the effectiveness of digital banking services are significantly correlated.

### **Suggestions**

To lower transaction failures and technical issues, Punjab National Bank should enhance the network and server performance of its online banking services. To boost consumer confidence in digital transactions, the bank should bolster security safeguards. Customers, particularly those in rural areas and the elderly, should be educated about digital banking services and how to use them safely through awareness campaigns and training sessions. In order to properly resolve problems with digital banking, the bank

should also offer prompt customer service. Additionally, frequent upgrades and enhancements to online and mobile banking apps can increase overall service performance and client satisfaction.

### **Conclusion**

The study comes to the conclusion that Punjab National Bank's digital banking services have a beneficial impact on both banking performance and customer satisfaction. Although some technological problems still need to be fixed, customers have a positive opinion of digital banking services.

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