

ASSESSING THE IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION: A STUDY OF PAYMENTS BANKS IN PUNJAB

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ABSTRACT

Payment Banks have emerged as new players in the Indian banking sector, particularly in the current era of digitalization. They serve as a broad platform enabling numerous customers to carry out electronic transactions simultaneously, without the need to visit a physical branch. These banks offer a wide range of products and services designed to attract and retain customers, significantly transforming the traditional banking landscape. As the industry progresses toward a cashless economy, physical currency is increasingly being replaced by digital cash and electronic wallets.

This study explored the impact of service quality on customer satisfaction with Payment Banks in Punjab. Three districts with the highest population density—Ludhiana, Jalandhar, and Amritsar—were selected based on data from the 2011 Population Census. A total of 300 users of Payment Banks were randomly chosen for the study, with 100 respondents from each district. The findings reveal a significant influence of payment banking services on customer satisfaction in the region.

Keywords: [Payment Banks, Service Quality, Customer Satisfaction, Punjab]

INTRODUCTION

Payment Banks (PBs) are relatively new entrants in the Indian banking landscape, emerging in the era of increasing digitalization. Unlike traditional banks, PBs operate on a smaller scale and are prohibited from offering credit facilities or issuing credit cards. However, they perform most other standard banking functions such as facilitating remittances, mobile payments, transfers, and offering services like net banking, debit/ATM cards, and third-party fund transfers.

The primary goal of Payment Banks is to broaden financial inclusion by establishing banking access points in rural, underserved, and remote regions across India. These banks aim to cater to the financial needs of small businesses, migrant workers, and low-income households. Customers can open savings accounts with no minimum balance requirement and typically enjoy higher interest rates compared to conventional banks. In addition, PBs provide convenient services such as cash deposits and withdrawals at nearby banking points, mobile/DTH recharges, utility bill payments (electricity, water, gas, etc.), and travel bookings, often with cashback incentives.

Digital payments via QR code scanning, phone number transfers, BHIM UPI, and merchant-initiated transactions are also key offerings of PBs. These services are designed to attract and retain customers by providing a seamless, tech-driven banking experience. As the banking sector evolves towards a cashless economy, PBs are playing a pivotal role by promoting digital transactions, minimizing the reliance on physical currency, and reducing operational costs. By leveraging internet-based platforms, they enable customers to conduct multiple transactions simultaneously without needing to visit a physical branch.

In essence, Payment Banks represent a transformative shift in the banking industry, redefining customer interaction through technology-driven services. The current study explored the impact of service quality provided by Payment Banks on customer satisfaction in the state of Punjab.

OBJECTIVE OF THE STUDY

To study the impact of the service quality of Payment Banks on customer's satisfaction in Punjab

RESEARCH HYPOTHESIS

H₀₁: There would be no significant impact of quality of services provided by the Payments Banks to their customer's satisfaction level.

H₁₁: There would be significant impact of quality of services provided by the Payments Banks to their customer's satisfaction level.

Research Methodology

The present research adopted a exploratory and descriptive approach. It utilized both primary and secondary data sources.

To select the customers of the respective banks, a multi-stage sampling technique has been applied. This investigation was primarily focused on state of Punjab. Based on the population density data from the 2011 census, the districts of Ludhiana, Jalandhar, and Amritsar were selected for the study. The study was carried out exclusively in three major districts of Punjab, India: Ludhiana, Jalandhar, and Amritsar. Each of these districts provided an adequate number of participants, enabling their inclusion in the research. From each district, 100 customers were selected and total sample size was of 300 customers. The study used a survey method to gather primary data, as it allows collection from a large number of respondents.

To collect the necessary primary data for analysis, a structured questionnaire was distributed through various digital platforms, including Google form and email. This approach was used to obtain the information required for the study. This study also relied on secondary data, which was sourced from annual reports of various Payments Banks, as well as national and international journals, bulletins, periodicals, and newspapers related to banking in India. Additionally, statistical data was gathered from the Reserve Bank of India's official website.

Basic mathematical tools such as percentages and averages are used. Statistical techniques such as correlation, regression and ANOVA are applied to interpret the data. The service quality of Payment Banks is assessed based on key factors including assurance, empathy, reliability, responsiveness, and tangibility.

RESULTS & DISCUSSIONS

The study includes the distribution of respondents based on various demographic factors such as place of residence, gender, marital status, age, education, occupation, and income. Correlation analysis between customers satisfaction and dimensions of service quality is done. For assessing the impact of service quality on customer satisfaction, multiple regression is adopted.

ANALYSIS OF DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Table 1: Distribution of Respondents on the basis of Habitat

Place of Residence/ Number of Respondents	Frequency	Percent
Rural	111	36.9
Semi Urban	10	3.5
Urban	179	59.6
Total	300	100.0

Source: Primary Survey, 2025

Table 1 illustrate the distribution of respondents based on their place of residence, categorized into rural, semi-urban, and urban areas. The data shows that the highest proportion of respondents, 59.6 percent live in urban areas, followed by 36.9 percent in rural regions and 4.5 percent in semi-urban locations.

Table 2: Distribution of Respondents on basis of Gender

Gender/ Number of Respondents	Frequency	Percent
Male	161	53.6
Female	139	46.3
Total	300	100.0

Source: Primary Survey, 2025

Table 2 present the distribution of respondents by gender. Males constitute a higher percentage at 53.6 percent, compared to 46.2 percent females. This suggests that males are more active users of payment bank services than females.

Table 3: Distribution of Respondents on basis of Marital Status

Marital Status/ Number of Respondents	Frequency	Percent
Married	207	69.0
Unmarried	93	31.0
Total	300	100.0

Source: Primary Survey, 2025

Table 3 shows the distribution of respondents based on marital status. It is observed that 69 percent of the respondents are married, while 31 percent are unmarried. This indicates that married individuals tend to use payment bank services more than their unmarried counterparts.

Table 4: Distribution of Respondents on the basis of Age

Age/Number of Respondents	Frequency	Percent
Below 20	40	13.3
20-40	176	58.6
40-60	84	28.1
Total	300	100.0

Source: Primary Survey, 2025

Table 4 presents the distribution of respondents by age. The largest proportion of respondents, 58.6 percent fall within the 20-40 years age group, followed by 28.1 percent in the 40-60 years category, and 13.3 percent are below 20 years of age.

Table 5: Distribution of Respondents on the basis of Level of Education

Level of Education/Number of Respondents	Frequency	Percent
Below Matric	15	5.0
Matric	72	24.0
Graduation	97	32.3
Post-Graduation	116	38.7
Total	300	100

Source: Primary Survey, 2025

Table 5 show the distribution of respondents according to their educational qualifications. The majority of respondents, 38.7 percent, have completed post-graduation, followed by 32.3 percent who are graduates. Additionally, 24 percent have passed matriculation, while 5 percent have education below matric level.

Table 6: Distribution of Respondents on the basis of Level of Occupation

Level of Occupation/Number of Respondents	Frequency	Percent
Businessman	32	10.7
Serviceman	84	28.0
Professional	102	34.0
Agriculturist	3	1.0
Student	56	18.64
Housewife	10	3.33
Any other	13	4.33
Total	300	100

Source: Primary Survey, 2025

Table 6 present the distribution of respondents based on their occupation. Professionals make up the largest group at 34.0 percent, followed by servicemen at 28.0 percent, students at 18.64 percent, and businessmen at 10.7 percent. Housewives account for 3.33 percent, while agriculturists represent 1 percent of the respondents.

Table 7: Distribution of Respondents on the basis of Income Level

Income Level/Number of Respondents	Frequency	Percent
Less than Rs.10000	85	28.3
Rs.10,000-50,000	149	49.7
Rs.50,000-1,00,000	42	14.0
> Rs.100000	24	8.0
Total	300	100.0

Source: Primary Survey, 2025

Table 7 illustrate the distribution of respondents based on income levels. A majority of 49.7 percent of respondents earning between Rs, 10,000 and Rs. 50,000 This is followed by 28.3 percent of respondents fall into the lower income category, earning less than Rs. 10,000. Additionally, 14.0 percent have incomes ranging from Rs. 50,000 to Rs. 100,000, while 8.0 percent earn above Rs. 100,000.

CORRELATION ANALYSIS

Table 8: Correlation between customers satisfaction and dimensions of service quality

Customer satisfaction /Dimension s of service quality	Customer satisfacti on	Tangi bility	Reliabilit y	Responsiv eness	Empa thy	Ass urance	Overall quality of services
Customer satisfaction	1	0.665 [*]	0.637 ^{**}	0.623 ^{**}	0.670 [*]	0.678 ^{**}	0.668 ^{**}
Tangibility	0.665 ^{**}	1	0.924 ^{**}	0.929 ^{**}	0.972 [*]	0.979 ^{**}	0.986 ^{**}
Reliability	0.637 ^{**}	0.924 [*]	1	0.870 ^{**}	0.929 [*]	0.933 ^{**}	0.945 ^{**}
Responsive ness	0.623 ^{**}	0.929 [*]	0.870 ^{**}	1	0.942 [*]	0.938 ^{**}	0.969 ^{**}
Empathy	0.670 ^{**}	0.972 [*]	0.929 ^{**}	0.942 ^{**}	1	0.985 ^{**}	0.982 ^{**}
Assurance	0.678 ^{**}	0.979 [*]	0.933 ^{**}	0.938 ^{**}	0.985 [*]	1	0.972 ^{**}
Overall quality of services	0.668 ^{**}	0.986 [*]	0.945 ^{**}	0.969 ^{**}	0.982 [*]	0.972 ^{**}	1

Source: Authors' Calculation

******. Correlation is significant at the 0.01 level (2-tailed).

Table 8 presents the correlation between customer satisfaction and various dimensions of service quality. The results indicate a moderate but statistically significant positive correlation at the 0.01 significance level (2-tailed) for all measured dimensions that is Tangibility (r=0.665), Reliability (r= 0.637), Responsiveness (r=0.623), Empathy (r=0.670) and Assurance (r=0.678)

This suggests that each dimension of service quality has a meaningful and positive relationship with customer satisfaction.

REGRESSION ANALYSIS

In order to see the significance and impact of quality of services of payment banks on customer satisfaction, multiple regression is employed. Mathematical equation for multiple regression is mentioned below:

$$CSt = \beta_0 + \beta_{11}X_{11} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15}$$

CSt= Customer Satisfaction (Dependent Variable)

β (0, 1, 2, 3, 4, 5)= Beta Coefficients

X(11, 12, 13, 14, 15)= Independent Variables

X₁₁=Tangibility, X₁₂=Reliability, X₁₃=Responsiveness, X₁₄=Empathy, X₁₅=Assurance

Table 9: Model summary of the dependent and independent variables

R	R ²	Adjusted R ²	Std. Error of the Estimate
0.60	0.36	0.35	15.75

Source: Authors' Calculation

The value of R is 0.60, indicating that 60 percent of the variance in the dependent variable is explained by the independent variables. The R² value of 0.36 suggests that approximately 36 percent of the variation in the dependent variable is accounted for by the model. The adjusted R² value of 0.35 confirms a good fit, slightly adjusting for the number of predictors in the model. The standard error of the estimate is 15.75, indicating the average distance that the observed values fall from the regression line. Overall, these results suggest a moderate linear relationship between the dependent and independent variables.

Table 10: Analysis of variance between customer satisfaction and dimension of quality of services

	Sum of squares	Df	Mean Squares	F-value	p-value
Regression	167797.67	6	28299.61	83.83	0.000**
Residual	176037.96	293	297.997		
Total	343835.63	299			

Source: Authors' Calculation

**Significant at 0.01 level

Dependent variable: Customer satisfaction

Independent variables: Tangibility, Reliability, Responsiveness, Empathy and Assurance and overall quality of services.

Table 11: Beta coefficient between customer satisfaction and dimension of quality of services

	Unstandardized Coefficients		t-value	p-value
	Beta coefficient	Std. Error		
(Constant)	22.91	2.76	7.237	0.00**
Tangibility	-5.79	2.82	-2.726	0.00**
Reliability	0.42	1.78	0.318	0.73
Responsiveness	-4.27	1.52	-2.023	0.04*
Empathy	-7.88	1.88	-4.659	0.00**
Assurance	0.21	1.35	0.147	0.89
Overall Quality of services	4.88	1.52	2.645	0.00**

Source: Authors' Calculation

**Significant at 0.01 level and *Significant at 0.05 level

Dependent variable: Customer satisfaction

Independent variables: Tangibility, Reliability, Responsiveness, Empathy, Assurance and total quality of services.

The beta coefficients in the regression analysis indicate a significant relationship between

customer satisfaction and specific dimensions of service quality. The parameters tangibility, empathy and overall quality of services are statistically significant at the 1 percent level (p -value = 0.00), meaning they have a strong influence on customer satisfaction. Additionally, responsiveness is also found to be significant at the 5 percent level, indicating a meaningful but slightly less strong impact. These findings suggest that these service quality dimensions play a key role in shaping customer satisfaction.

CONCLUSIONS

The study found that young, digitally savvy individuals who are comfortable using mobile wallets show greater awareness and actively participate in digital transactions through Payment Banks. Furthermore, male and married respondents with a monthly income exceeding ₹10,000 tend to use Payment Bank services more frequently.

Among various occupational groups, professionals, mobile network operator agents, small merchants, kirana store owners, agricultural traders, and small service providers emerge as prominent users of Payment Bank services. These users commonly utilize Payment Banks for multiple purposes, such as:

- Cash deposits and withdrawals
- Bill payments
- Money transfers
- Managing savings and current accounts
- Loan disbursements via collaborations with banks and NBFCs
- Distribution of insurance and investment products

Additionally, the study revealed a strong positive correlation between customer satisfaction and the quality of services offered by Payment Banks. This underscores the importance of service quality dimensions in improving the overall customer experience and satisfaction within the digital banking sector.

RECOMMENDATIONS

- Awareness must be created among the general public regarding the convenience and time-saving nature of digital transactions offered by Payment Banks, especially through mobile wallets, which can be used anytime and anywhere.
- Payment Banks should adopt robust and advanced security technologies to minimize risks and assure customers that the bank is accountable in case of security breaches. This will foster greater trust and confidence.
- More branches and service points should be established in unbanked and underbanked regions of Punjab. Awareness programs should be executed through local agents to promote services effectively.
- Special focus should be placed on individuals above 40 years of age, promoting services such as domestic remittances, cash-in/cash-out, and bill payments through user-friendly interfaces.
- The government must enforce strict cybersecurity regulations to reduce online frauds and hacking attempts. Stringent penalties should be imposed on offenders.

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