

Awareness and Adoption of Mobile Banking Services: Evidence from Mandsaur City, Madhya Pradesh

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Abstract

The new era of mobile banking has transformed and facilitated the present scenario of the banking sector. With mobile technology, banks can offer a wide range of services to their customers. Smartphones are the most promising means to reach the masses and create “stickiness” among existing customers due to their ability to provide services anytime and anywhere, their high penetration rate, and immense growth potential. The study examines the level of awareness and adoption of mobile banking services among customers in Mandsaur, Madhya Pradesh. Based on a primary survey of 200 respondents using a structured questionnaire, the results indicate that round-the-clock availability and ease of transaction are major attractions for mobile banking users. However, security concerns and lack of digital literacy remain key barriers. The study concludes that targeted awareness programs can enhance adoption, particularly among semi-urban users.

Keywords: Customer Satisfaction, Mobile Banking, M- Banking, Technology Awareness.

INTRODUCTION

The emergence of mobile banking has transformed the Indian banking sector, enhancing accessibility and customer convenience. With mobile technology banks can offer a wide range of services to their customers. Especially smart phones are the most promising way to reach the masses and to create stickiness among current customers due to their ability to provide services anytime, anywhere, high rate of penetration and potential to grow. After the launch of mobile banking in India, mobile transactions have seen some growth. Round the clock availability and Ease of Transaction are the major attractions to customers of mobile banking.

Introduction of Mobile Banking; Your Mobile Your Bank

Information technology plays an essential role in the banking sector, and with the continuous changes in technology, mobile banking services offered by various banks across the country have improved significantly. Mobile banking provides customers with anytime access to their accounts, allowing them to check account details, obtain bank statements, transfer money, and pay bills from the comfort of their homes or offices. Unlike internet banking, which requires a personal computer with an internet connection, mobile banking reduces the requirement to just a mobile phone, thereby addressing a major limitation of traditional internet banking.

Mobile banking has emerged as a wireless communication channel that creates value for customers by making banking transactions more convenient and secure. It enables users to access information such as account balances and receive updates directly on their mobile devices with high security. The services are provided through mobile networks and can be accessed via devices such as mobile phones, PDAs, wireless tablets, and other gadgets connected to mobile telecommunication networks. This advancement makes it possible for payments and transactions to be completed seamlessly, leading to new and innovative ways of convenience and commerce (Goyal et al., 2021).

Mobile Banking Services: Banks offering mobile access are mostly supporting some or all of the following services:

Account Information: Deposit, Access to loan statements, Mutual funds/equity statements, Insurance policy management, Pension plan management

Payments & Transfers: Domestic and international fund transfers, Micro-payment handling, Mobile recharging, Commercial payment processing, Bill payment processing

Content Services: Services related to loan installment alter messages, offer, Location-based services.

MANDSAUR: THE CITY OF LORD PASHUPATINATH

Mandsaur district is rich in archaeological and historical heritage. The district takes its name from the district headquarters town Mandsaur, which has eight tehsils named Malhargarh, Garoth, Shamgarh, Daloda, Bhanpura, Sitamau, and Suwasra. Mainly, people are engaged with agricultural work and have many kinds of industries set up. In recent years, the district has also been part of Madhya Pradesh's efforts to promote digital inclusion and financial literacy, especially among rural and semi-urban populations. These initiatives aim to enhance awareness and adoption of digital banking services, contributing to greater financial empowerment and inclusion. In 2011, Mandsaur had a population of 1,340,411, of which males and females were 682,851 and 657,560 respectively. In the 2001 census, Mandsaur had a population of 1,183,724, of which males were 605,119 and the remaining 578,605 were females. The average literacy rate of Mandsaur in 2011 was 71.78 compared to 71.78 in 2001. If things are looked out at gender wise, male and female literacy was 85.14 and 57.98 respectively. With regard to the sex ratio in Mandsaur, it stood at 963 per 1000 males compared to the 2001 census figure of 956. The average national sex ratio in India is 940 as per the latest reports of Census 2011.

LITERATURE REVIEW

Vyas and Mehta, (2024) ^[1] Stated that Indian banks will target non-online banking users who may lack regular access to desktop internet and get reporting great potential of mobile banking in India. This report of vital analytics suggested huge potential of mobile banking in India, as it found that urban Indian customers' checking account balance is the most frequently cited reason for using mobile banking 40 million urban Indians used their mobile phones to check their bank account balances followed by viewing last three transactions.

Suryanarayana, (2023) ^[2] Define mobile banking as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank using mobile device. With broadband communication technological development and mobile phone penetration (481 million by June 2032) into common man's life have triggered major threat in banking sector of India. With mobile banking a revolutionary approach to banking transaction has created a strong connectivity between customer and

bank as both will transact with minimum cost and minimum time. It is a timely and its cost-effective service can deliver mobile money to non-banked poor people and will induce economic growth of country. **According to Poddar, (2022)** ^[3] It can be defined as the extent to which customers are informed about, understand, and utilize mobile-based platforms for accessing and managing both traditional and innovative and secure, with various sources. It encompasses familiarity with the features, benefits, security aspects, and usage procedures of mobile banking applications, enabling customers to conduct transactions anytime and anywhere using smartphones or other portable devices.

Amit and Kumara, (2021) ^[4] Separated the customers into three groups as demographic, social-economic standing and technological access to with mobile banking and also defended that banks need to identify the market segments and the marketing of the online services should be based on this segmentation in order to improve the online banking in Madhya Pradesh.

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Sawhney S., Kamble S. S., Bansal R., (2020) ^[5] This research paper has defined online service quality factors that make possible the client's fulfilment for the e-travel and e-mart online retail. Additionally, they are assessing perceived by the customers for offering an objective determines of service performance.

RESEARCH GAP

While several studies have addressed mobile banking awareness in urban India, limited research focuses on small and semi-urban cities like Mandsaur, where digital literacy and infrastructure constraints significantly affect adoption. most existing literature emphasizes urban customers or aggregated data, and technological aspects or customer satisfaction, overlooking the unique socio-economic, educational, and infrastructural factors influencing awareness in smaller cities.

PROBLEM STATEMENT

In smaller cities like Mandsaur, this problem is compounded by limited digital literacy, inadequate awareness about features, benefits, and security measures, with insufficient promotional outreach. Without a clear awareness levels and the particular issued overlooked by residents in such semi-urban areas, initiatives to promote mobile banking risk being ineffective, thereby widening the digital divide between urban and semi-urban populations.

OBJECTIVES

- To assess the level of awareness among customers regarding Mobile banking services in Mandsaur city.
- To identify the factors influencing awareness and adoption of Mobile banking.
- To find out the challenges and concerns faced by respondents.
- To suggest measures for improving mobile banking awareness and usage in the city.

RESEARCH METHODOLOGY

The present study titled has been undertaken to examine the level of awareness, usage patterns, and perceptions of customers regarding mobile banking services. Research methodology provides a systematic framework for collecting, analyzing, and interpreting data in order to achieve the objectives of the study. In this research, both primary and secondary data have been utilized. Primary data was collected through a structured questionnaire administered to respondents in Mandsaur city, covering different demographic and occupational groups. Secondary data was gathered from books, journals, research articles, and online resources to provide theoretical support and context. The methodology focuses on adopting a descriptive research design to analyze customer awareness and satisfaction levels, as well as the challenges faced in adopting mobile banking services.

RESEARCH DESIGN:

The present study is based on descriptive in nature. The area we cover is Mandsaur district in Madhya Pradesh and more than two hundred respondents have been selected for being as studies for analyzing data percentages and SPSS tools and technology applications used for contribution to mobile banking awareness and services offered among the residents of Mandsaur City.

SAMPLE SIZE: The study adopts a random sampling technique to ensure an unbiased representation of Mandsaur city's population. which two hundred people were chosen from the various segments of society, including students, farmers working professionals, housewives, and senior citizens. all of whom have bank accounts.

DATA COLLECTION: Primary Data was gathered through by questionnaires given to employed and self-employed people. The questionnaires were administered in good way by which respondents had ample time in answering the questions. This was done to minimize the biasness of responses. Before administering the questionnaire, were properly briefed regarding the research context and objectives, in total 17 questions were distributed, to state their level of agreement against the series of statements pertaining to the items measuring customer awareness of mobile banking service, using a 5-point Likert scale ranging from 5 ("strongly agree") to 1 ("strongly disagree").

TOOLS FOR ANALYSIS:

The reliability of the questionnaire was tested using Cronbach's Alpha, which was found to be 0.89 for the seventeen questions. And the variables where the data were tested using Hypothesis Testing: Correlation and chi square test for the relationship between the variables and regression analysis were carried out to determine the extent to which independent variables influence the dependent variables. The above-mentioned tests were conducted using SPSS 27.0. Statistical Package for Social Sciences.

VARIABLES FOR THE STUDY: Independent Variables- age group, education, occupation, Employment status, Dependent Variables- Responses like, Likert scale responses (Strongly Agree to Strongly Disagree).

DATA ANALYSIS AND INTERPRETATION:

In the research study, this section contains the analysis of the collected data with using the accurate techniques. Along with this, it also contains interpretation and discussion of the analyzed data. In the reference of this research study, the researcher used SPSS software to analyse collected data. Following are finding of analyzed data:

RELIABILITY TEST:

This test is measures of internal consistency among the variables and grouping of the data of any researcher study. It shows effectiveness of the collected data, for this, it is essential to Cronbach's Alpha value should in positive. The below are findings of reliability test.

✓ **Reliability Statistics**

| Cronbach's Alpha | N0 of Items |
|------------------|-------------|
| 0.89 | 17 |

The value of Cronbach’s Alpha in this research study has positive value of it. which means that collected data is valid and reliable to achieve the objective of research.

REGRESSION Model Summary

| Model | R | R. Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|-----------|-------------------|----------------------------|
| 1 | .385 ^a | .148 | .037 | 1.10266 |

ANOVA^b

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|-----|-------------|-------|------------------|
| 1 Regression | 37.205 | 23 | 1.618 | 1.330 | 154 ^a |
| Residual | 213.990 | 176 | 1.216 | | |
| Total | 251.195 | 199 | | | |

Interpretation

The model explains 14.8% of the variance in awareness levels, indicating a modest relationship between the independent variables and the dependent variable.

second 0.037 in term of 3.7% of the variation is explained, which is quite low — possibly due to a small sample size or weak predictors. and Std. Error of the Estimate is 1.10266. which is the smaller value indicating a better fit. In this case, on average, the predicted values are off by about 1.10 units. On the other hand, in anova table, it is identified that significant value is 0.154. (which is greater than 0.05), the model is not statistically significant at the 5% level. meaning there is not enough evidence to reject the null hypothesis. The null hypothesis, at the same time, Coefficients table depicts that highest beta value is 0.181. which show This independent variable (say, e.g., Education *or* Internet usage) has the strongest influence on awareness among all predictors. In the same manner, highest significance value is 892 which highlights variable is not significant at all its effect on awareness could just be due to random chance.

HYPOTHESIS TESTING

Hypothesis 1

Purpose to Test - To study that Mobile-banking services to allows the customers to manage their banking account without visiting in bank

Statistical Test - Chi-Square Test

Null Hypothesis(H_0): Mobile-banking services do not allow customers to manage their banking accounts without visiting a bank.

Alternative Hypothesis(H_1): Mobile-banking services allow customers to manage their banking accounts without visiting a bank.

| Question | Group | strongly agree | agree | Neutral | disagree | strongly disagree | Total |
|---|-------|----------------|-------|---------|----------|-------------------|-------|
| Mobile- banking allows the customers to manage their Banking account without visiting in Bank | A | 23 | 25 | 8 | 20 | 15 | 91 |
| | B | 15 | 22 | 6 | 18 | 12 | 73 |
| | C | 2 | 1 | 3 | 2 | 1 | 9 |
| | D | 6 | 3 | 2 | 3 | 4 | 18 |
| | E | 1 | 5 | 0 | 3 | 0 | 9 |
| Total | | 47 | 56 | 19 | 46 | 32 | 200 |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 15.393 ^a | 16 | .496 |
| Likelihood Ratio | 15.434 | 16 | .493 |
| Linear-by-Linear Association | .028 | 1 | .867 |
| N0 of Valid Cases | 200 | | |

Interpretation

a. 14 cells (56.0%) have expected count less than 5. The minimum expected count is .86. the above hypothesis test shows that the p-value for the Pearson Chi-Square test is 0.496, which is greater than 0.05. therefore, we fail to reject the null hypothesis. In the same concern of this, the value of Likelihood Ratio is 0.493 and Linear-by-Linear Association is 0.867 that also support the alternative hypothesis. Therefore, on the basis of finding, it is stated that M-banking allows the customers to manage their banking account without visiting in bank.

Hypothesis 2

Purpose to Test - To Study that challenges and issues faced by users in using mobile banking services.

Null Hypothesis (H_0):

There is no significant relationship between the level of awareness about mobile banking and the challenges faced by users in using mobile banking services.

Alternative Hypothesis (H_1):

There is a significant relationship between the level of awareness about mobile banking and the challenges faced by users in using mobile banking services.

| Question | Group | strongly agree | agree | Neutral | disagree | strongly disagree | Total |
|--|-------|----------------|-----------|----------|-----------|-------------------|------------|
| What are the main challenges you face in using Mobile Banking? | A | 47 | 31 | 4 | 6 | 2 | 90 |
| | B | 42 | 34 | 2 | 7 | 2 | 87 |
| | C | 2 | 2 | 1 | 0 | 0 | 5 |
| | D | 7 | 5 | 0 | 3 | 2 | 16 |
| | E | 2 | 0 | 0 | 0 | 0 | 2 |
| Total | | 100 | 72 | 7 | 16 | 6 | 200 |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 14.493 ^a | 16 | 0.296 |
| Likelihood Ratio | 13.434 | 16 | 0.383 |
| Linear-by-Linear Association | 0.026 | 1 | 0.776 |

Interpretation

The Chi-Square test results exhibits that there is no statistically significant relationship between the variables under study, as the Pearson Chi-Square value ($\chi^2 = 14.493$, $df = 16$, $p = 0.296$) shows a p-value greater than the 0.05 level of significance. Similarly, the Likelihood Ratio ($\chi^2 = 13.434$, $df = 16$, $p = 0.383$) and the Linear-by-Linear Association test ($\chi^2 = 0.026$, $df = 1$, $p = 0.776$) also reveal non-significant outcomes. Therefore, the null hypothesis is rejected, suggesting that the observed relationship between the variables is weak and not statistically meaningful.

Hypothesis 3

Purpose to Test- To examine that Mobile -banking is fully secured way to manage their bank account with a trusted method

Statistical Test - Chi-Square Test

Null Hypothesis (H_0):

There is no statistically significant association and awareness between customers' perception of mobile banking and their trust/security in using it as a method to manage bank accounts.

Alternative Hypothesis (H_1):

There is a statistically significant association between customers' opinion of mobile banking with their trust/security in using it as a method to manage bank accounts.

| Question | Group | strongly agree | agree | Neutral | disagree | strongly disagree | Total |
|--|-------|----------------|-----------|----------|-----------|-------------------|------------|
| Mobile-banking is fully secured way to manage their bank account with trusted method | A | 51 | 29 | 2 | 5 | 3 | 90 |
| | B | 40 | 36 | 3 | 6 | 2 | 87 |
| | C | 1 | 4 | 0 | 0 | 0 | 5 |
| | D | 8 | 4 | 1 | 3 | 1 | 17 |
| | E | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | | 100 | 74 | 6 | 14 | 6 | 200 |

Chi-Square Tests

| Test | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|--------|----|-----------------------|
| Pearson Chi-Square | 13.082 | 16 | .667 |
| Likelihood Ratio | 12.779 | 16 | .689 |
| Linear-by-Linear Association | 2.798 | 1 | .094 |
| No of Valid Cases | | | 200 |

Interpretation

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is 03. The result of hypothesis test shows that Chi-Square value is 0.667 which is much greater than 0.05. Therefore, we fail to reject the null hypothesis. In the same concern of this, the value of Likelihood Ratio is 0.689 and Linear-by-Linear Association is 0.094 that also support the alternative hypothesis. Therefore, on the basis of finding, it is stated that Mobile-banking is fully secured way to manage their banking account with trusted method.

FINDINGS AND DISCUSSION

The findings of the survey indicate that people from all age groups, both married and unmarried, including students, employed, self-employed, and retired individuals, participated in the study. Respondents also represented different income levels and educational backgrounds. The results highlight that mobile banking (M-banking) enables customers to manage their financial activities more effectively and conveniently. It simplifies access to banking services and makes everyday transactions easier. Moreover, many participants acknowledged that electronic banking (e-banking) is easy to start and operate. However, a portion of respondents still prefer the traditional banking system, largely because they are not yet familiar or comfortable with mobile banking.

The study also revealed that in the present environment, most people are aware of various modern methods of accessing their bank accounts, such as internet banking and mobile banking. These services allow customers to complete multiple transactions without visiting the bank physically, making the process more convenient. Mobile banking provides accurate and clear information on each transaction, while also ensuring that customer information remains confidential. Nevertheless, there are concerns regarding security, as M-banking transactions may sometimes be vulnerable to unauthorized third-party interruptions. Despite these challenges, most customers continue to trust mobile banking, as banks are committed to maintaining privacy and protecting sensitive data.

In terms of efficiency, mobile banking has proven to be a time-saving and cost-effective process. Internet and mobile banking services allow customers to access their accounts 24/7, conduct financial transactions accurately, and improve overall productivity. In India, many banks provide mobile banking facilities free of cost, further enhancing its appeal. However, one limitation is that increased reliance on mobile and internet banking has somewhat reduced direct customer–banker relationships. Even so, the growing adoption of online banking services has significantly enhanced customer satisfaction, effectiveness, and performance in utilizing banking services. Thus, mobile banking can be summarized as an easy, effective, and modern way of managing financial transactions.

CONCLUSION AND SUGGESTIONS

The study concludes that while mobile banking adoption is gradually increasing in Mandsaur, several bar-

riers such as low digital literacy, poor network connectivity, and a preference for traditional banking methods continue to hinder its widespread use. Mobile banking enables customers to manage their financial activities efficiently and conveniently by simplifying banking processes and making them more accessible; however, the survey data reveals that poor internet connectivity remains a significant obstacle. Additionally, some customers still favor face-to-face transactions due to greater comfort and trust in traditional methods. To address these challenges, targeted interventions are needed—government and financial institutions should organize mobile banking awareness drives in colleges, marketplaces, and community events to improve knowledge and acceptance. Providing basic smartphone training, especially for women, senior citizens, and less-educated users, would further enhance confidence in digital banking and encourage broader adoption across rural and urban areas of Mandsaur. future studies may extend to other semi-urban districts in Madhya Pradesh for comparative analysis and a deeper understanding of regional variations in mobile banking adoption.

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