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Critical Analysis of Mobile Commerce in HDFC Bank of Nagpur, Maharashtra

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ABSTRACT

With apps for investments, bill payment, fund transfers, and chatbots for immediate assistance, new-generation private banks use mobile commerce (m-commerce) to provide seamless digital banking. This reduces the need for physical branches while increasing customer convenience and financial inclusion. However, security and sophisticated AI integration are still major areas of focus for expansion. These banks concentrate on safe, user-friendly mobile platforms, using blockchain, AI, and biometrics to provide branchless, round-the-clock financial services for the tech-savvy client. This paper reflects Critical Analysis of Mobile Commerce in HDFC Bank of Nagpur, Maharashtra.

Keywords: *HDFC Bank, Financial Inclusion, Digital Adoption, Payments.*

INTRODUCTION

In today's mobile-first world, m-commerce is essential because of its unmatched speed (one-click checkout, digital wallets), convenience (shop anytime, anywhere), and personalization (AI, location-based offers). These factors satisfy modern consumers' need for instant gratification and significantly increase business growth and customer loyalty. It is crucial for competitive survival and future innovation like AR/voice commerce since it enables firms to access a large global audience, lowers costs, and combines with in-store experiences. M-Commerce is crucial for HDFC Bank as it drives customer acquisition, convenience, and market share by offering anytime/anywhere banking via apps (like PayZapp) for payments, fund transfers, and services, meeting India's massive digital adoption, enhancing security with features like PINs, and building merchant ecosystems, all while reducing reliance on physical branches.

HDFC BANK

HDFC Bank stands for Housing Development Finance Corporation Bank. HDFC provides a wide range of banking and financial services. It was the first financial organisation that got an 'in principle' authorisation from the Reserve Bank of India (RBI) to establish a private sector bank. The RBI's policy for liberalisation of the Indian banking industry is responsible for establishing this bank in 1994.



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OBJECTIVES OF THE STUDY

- To analyze the opinions and satisfaction level of customers of M-Banking services provided by the HDFC bank of Nagpur.

DATA ANALYSIS

Quantitative Data Analysis of HDFC Bank Customers

1. Gender

Gender as a demographic characteristic that has been the subject of a great deal of research.

Table 1: Gender of the Respondents

| Gender | Numbers | Percentage |
|--------|---------|------------|
| Male | 300 | 75 |
| Female | 100 | 25 |
| Total | 400 | 100 |

Source: Primary data, survey

It is evident from Table and Graph 1 that

Out of 400 respondents, 300 males and 100 females served as samples in this study. They fall 75% and 25%, correspondingly. The majority respondents are male.

2. Male respondents are higher as compared to female

Thus Table 6.1 and Graph 6.1 reflects that the majority are male (i.e. 75 percent).

2. Age

A study of the age distribution of respondents is essential to their analysis. Age takes a particularly significant role in relation to efficacy. It has an effect on both “the capacity and sense of accountability”. Consequently, the age range of the participants was divided into four groups: individuals aged 31–40, 41–50, 51–60, and 61 years and above.

The age distribution of the respondents is illustrated in Table and Graph 2 as:

Table 2: Age

| Age Group | Nos. of Respondents | Percentage |
|--------------|---------------------|------------|
| 31-40 | 125 | 31.25 |
| 41-50 | 125 | 31.25 |
| 51-60 | 100 | 25 |
| 61 and above | 50 | 12.5 |
| Total | 400 | 100.00 |

Source: Primary Data, Survey



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Graph and Table 2 reflect that

Out of 400 respondents, 125 respondents (31.25%) belong to the age range of 31-40 years, 125 (31.25%) respondents are belonging to the age range of 41-50 years, 100 (25%) respondents are in the age group of 51-60, whereas 50 respondents (12.5%) are 61 and above age group.

3. Education

Table 3: Education

| Education | Nos. of Respondents | % of Respondents |
|---------------------------|---------------------|------------------|
| Graduate | 75 | 18.75 |
| Post Graduation | 125 | 31.25 |
| Professional including PG | 200 | 50 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Table and Graph 3 reflect that

1. Out of 400 respondents, 75 have graduated, accounting for 18.75%. In contrast, 125 respondents, or 37.5% of the total, hold Post Graduation whereas 200 respondents have professional qualifications such as engineering, MBA, postgraduates, diploma engineering, or pharmacy.
2. Professional including PG make up the majority of respondents, followed by graduates with professional qualifications.

It can be deduced that the majority of respondents hold a postgraduate degree and Professional including PG

4. Frequency of Using Mobile Banking App

Table 4: Frequency of Using Mobile Banking App

| Options | Nos. of Respondents | % of Respondents |
|--------------|---------------------|------------------|
| Every Day | 150 | 37.5 |
| Once A Week | 150 | 37.5 |
| Fortnightly | 50 | 12.5 |
| Once A Month | 50 | 12.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey



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Table and Graph 4 reflect that

Out of 400 respondents, 150 respondents, use every day this APP whereas 150 respondents, use once a week, 50 respondents, use fortnightly and 50 respondents, Use once a month.

5. Issue Regarding User Friendliness of Mobile Banking App

Table 5: Issue Regarding User Friendliness of Mobile Banking App

| Options | Nos. of Respondents | % of Respondents |
|---------|---------------------|------------------|
| Yes | 390 | 97.5 |
| No | 10 | 2.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Table and Graph 5 reflect that

Out of 400 respondents, 390 respondents (97.5%) have given positive answer whereas 10 respondents (2.5 %) have given negative answer.

6. Issue Regarding Types of Transactions Through Mobile Banking App

Table 6: Issue Regarding Types of Transactions Through Mobile Banking App

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Managing Accounts | 30 | 7.5 |
| Fund Transfer | 50 | 12.5 |
| Balance Enquiry | 50 | 12.5 |
| Bill Payment | 50 | 12.5 |
| Investment | 65 | 16.25 |
| Ticket Booking | 5 | 1.25 |
| All of these | 150 | 37.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Table and Graph 6 reflect that

Out of 400 respondents, 30 respondents (7.5 %) use this app for Managing Accounts , 50 respondents (12.5 %) use this app for Fund Transfer , 50 respondents (12.5 %) use this app for Balance Enquiry , 50 respondents (12.5 %) use this app for Bill payment , 65 respondents (16.25 %) use this app for Investment and 5 respondents (1.25 %) use this app for ticket booking and 150 respondents (37.5%) use this app for all these purposes.



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7. Causes Behind Use of Mobile Banking

Table 7: Causes Behind Use of Mobile Banking

| Options | Nos. of Respondents | % of Respondents |
|--------------|---------------------|------------------|
| Convenience | 70 | 17.5 |
| Time Saving | 90 | 22.5 |
| All of these | 240 | 60 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Table and Graph 7 reflect that

Out of 400 respondents, 70 respondents (17.5 %) use mobile banking for convenience, 90 respondents (22.5 %) use mobile banking for Time Saving and 240 respondents use all of these as the cause behind Mobile Banking.

8. Availability of Financial Information and Managing these over Mobile Phone

Table 8: Opinion Regarding the Availability of Financial Information and Managing These Over Mobile Phone

| Options | Nos. of Respondents | % of Respondents |
|---------------|---------------------|------------------|
| Very Secure | 100 | 25 |
| Secure | 100 | 25 |
| Neutral | 50 | 12.5 |
| Unsecure | 100 | 25 |
| Very Unsecure | 50 | 12.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 100 respondents (25 %) feel very secure with the issue ,100 respondents (25 %) feel secure with the issue, 50 respondents (12.5 %) neutral with the issue, 100 respondents (25 %) unsecure with the issue, 50 respondents (12.5 %) very unsecure with the issue.



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9. Satisfied with The Reliability of The App's Network Connectivity

Table 9: Satisfied with The Reliability of The App's Network Connectivity

| Options | Nos. Of Respondents | % Of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 100 | 25 |
| Satisfied | 140 | 35 |
| Neutral | 50 | 12.5 |
| Dissatisfied | 85 | 21.25 |
| Very Dissatisfied | 25 | 6.25 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 100 respondents (25 %) are very satisfied, 140 respondents (35 %) are satisfied, 50 respondents (12.5%) have not given any opinion and 85 respondents (21.25%) are dissatisfied and very dissatisfied respectively with the issue.

10. Satisfied with the Visual Design and Interface of the M-Banking App

Table 10: Satisfied with the Visual Design and Interface of the M-Banking App

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 100 | 25 |
| Satisfied | 150 | 37.5 |
| Neutral | 50 | 12.5 |
| Dissatisfied | 50 | 12.5 |
| Very Dissatisfied | 50 | 12.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 100 respondents (25 %) are very satisfied, 150 respondents (37.5 %) are satisfied, 50 respondents (12.5 %) are neutral, 50 respondents (12.5 %) are dissatisfied, 50 respondents (12.5%) are very dissatisfied with the issue.



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11. Issue Regarding the Ease of Navigating the App's Interface

Table 11: Issue Regarding the Ease of Navigating the App's Interface

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 100 | 25 |
| Satisfied | 150 | 37.5 |
| Neutral | 50 | 12.5 |
| Dissatisfied | 50 | 12.5 |
| Very Dissatisfied | 50 | 12.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 100 respondents (25 %) are very satisfied, 150 respondents (37.5 %) are satisfied, 50 respondents (12.5 %) are neutral, 50 respondents (12.5 %) are dissatisfied, 50 respondents (12.5%) are very dissatisfied with the issue.

12. Issue Regarding the Speed of Financial Transaction Through Mobile App

Table 12: Issue Regarding the Speed of Financial Transaction Through Mobile App

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 320 | 80 |
| Satisfied | 80 | 20 |
| Neutral | 0 | 0 |
| Dissatisfied | 0 | 0 |
| Very Dissatisfied | 0 | 0 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 320 respondents (80 %) are very satisfied, 80 respondents (20%) are satisfied with the issue.



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13. Issue Regarding the Trust on The Banking App

Table 13: Issue Regarding the Trust on The Banking App

| Options | Nos. of Respondents | % of Respondents |
|---------|---------------------|------------------|
| Yes | 370 | 92.5 |
| No | 30 | 7.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 370 respondents (92.5%) have given positive answer whereas remaining 30 respondents (7.5%) have given negative answer related the issue.

14. Issue Regarding the Identity Theft or Fraud When using The App

Table 14: Issue Regarding the Identity Theft or Fraud When Using the App

| Options | Nos. of Respondents | % of Respondents |
|---------|---------------------|------------------|
| Yes | 280 | 70 |
| No | 120 | 30 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 280 respondents (70 %) have given positive answer whereas remaining 30% have given negative answer related the issue.

14. Issue Regarding the Satisfaction with The Banking App along with The Sensitive Information

Table 14: Issue Regarding the Satisfaction with The Banking App along with the Sensitive Information

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 100 | 25 |
| Satisfied | 150 | 37.5 |
| Neutral | 50 | 12.5 |
| Dissatisfied | 50 | 12.5 |
| Very Dissatisfied | 50 | 12.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey



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Out of 400 respondents, 100 respondents (25 %) are very satisfied, 150 respondents (37.5 %) are satisfied, 50 respondents (12.5 %) are neutral, 50 respondents (12.5 %) are dissatisfied and 50 respondents (12.5%) are very dissatisfied with the issue.

15. Issue Regarding the Satisfaction with the Availability of All Types of Information in Mobile Banking App

Table 15: Issue Regarding the Satisfaction with The Availability of All Types of Information in Mobile Banking App

| Options | Nos. of Respondents | % of Respondents |
|-------------------|---------------------|------------------|
| Very Satisfied | 220 | 55 |
| Satisfied | 80 | 20 |
| Neutral | 30 | 7.5 |
| Dissatisfied | 40 | 10 |
| Very Dissatisfied | 30 | 7.5 |
| Total | 400 | 100 |

Source: Primary Data, Survey

Out of 400 respondents, 220 respondents (55 %) are very satisfied, 80 respondents (20%) are satisfied, 30 respondents (7.5%) are neutral, 40 respondents (10%) are dissatisfied and 30 respondents (7.5%) are very dissatisfied with the issue.

CONCLUSION

- Opinions and Satisfaction Level of Customers of M-Banking Services provided by HDFC Bank
- Customers are satisfied with user friendliness of Mobile Banking APP.
- Most of the customers of ICICI banks are satisfied with Mobile Banking APP while doing following transaction:
 - Managing Accounts
 - Fund Transfer
 - Balance Enquiry
 - Bill Payment
 - Investment
 - Ticket Booking
- Most of the customers of HDFC bank are satisfied with the use of Mobile banking APP as they are using the same for convenience and time saving.



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- HDFC bank mobile banking APP is secure in Mobile Phone for managing over phone except few Customers.
- Customers are satisfied with reliability of mobile APP's network connectivity.
- Visual Design and Interface of the M-Banking App have satisfied customers.
- Customers are satisfied with speed of financial transaction through mobile APP.
- Customers have trust on the Mobile Banking APP.
- Few customers have raised the issue related to identity theft or fraud while using the mobile banking APP.
- While exchanging sensitive information through Mobile APP, customers are satisfied with this.
- Customers are Satisfaction with the Availability of all Types of information in Mobile Banking App.
- Except few customers, majority have not raised any issue related to logging Into Mobile App
- Majority of customers are dissatisfied with UPI payment through Mobile APP, that may also be due to the issue of Internet speed.
- Customers of HDFC bank face technical problems that may be due to the problem in their Mobile phones.
- There is no significant difference in mean scores of ICICI Bank customers of different ages with respect to satisfaction level of Mobile Banking Services

REFERENCES

1. Malhotra P. and B. Singh (2005), 'New Revolution in the Indian Banking Industry: Internet Banking', Punjab Journal of Business Studies, Volume 1(1), April-September, pp 75-86.
2. Malhotra, N., Birks, D. (2003). Marketing research: An applied Approach, 2nd European edition. Harlow: Pearson Education.
3. Malhotra, P. and Singh, B. (2005) "The impact of internet banking on bank's performance: the Indian experience", South Asian Journal of Management, Vol. 13, No. 4, pp.25–54.
4. Mankidy J. (2000) analyzes "that banks have moved away from traditional functions of acceptance of deposits and disbursal of loans to a variety of products suited to the changing needs of today's customers", Journal of Banking & Finance, 16(2): 439–457.
5. Matousek R. and A. Taci (2004), 'Efficiency in Banking: Empirical Evidence from the Czech Republic', Economic Planning, Volume 37 Issue 3-4, pp 225- 44.
6. Michael B. Gerrard (2001), Public-Private Partnerships, Finance and Development, IMF, Vol. 38, No.3, September 2001, Washington.