A Study Of Key Factors That Affected On Mobile Banking Adoption During The Corona Crisis In India.

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Abstract

This study aims to examine the factors that determine mobile banking adoption during the corona crisis in India, through the customer's perspective. The sample population of this study consisted of 77 participants, who had used or are using a mobile banking for making purchases. The results show that among all other factors like customer loyalty, advertising and promotions and trust level was found to have highest influence on customer decision to adopt a mobile banking. This is followed by ease of use/familiarity with features and then advertising and promotion. Recommendations for growth opportunities include training customers about using a mobile banking; introducing features like loyalty program etc., leveraging "trust" aspect of customer relationships with enterprises, ensure security standards etc.

Keywords: Mobile banking, adoption, adoption factors, corona crisis, customer perspective

DOI Number: 10.14704/nq.2022.20.9.NQ44465 **Neuro Quantology 2022; 20(9):4060-4064**

1. Introduction

In 2015, the Reserve Bank of India published new rules for Unified Payments Interface (UPI), Mobile Banking, and Bharat Bill Payment System (BBPS) after implementing the RBI's Financial Inclusion Recommendations Report. UPI, BBPS and mobile banking were also introduced. Each one began in August 2016 with a different date. Due to the desire for non-cash payments following demonetisation, mobile banking will be a low-cost alternative to bank accounts or credit/debit cards. Demonetization in November 2016 and the government's continual drive for a cashless economy have accelerated development.

The Indian digital payments industry was worth INR1.638.49 trillion in FY 2019 and is predicted to reach INR4,323.63 trillion by FY 2024, growing at a CAGR of 22%.

A recent report from the National Payments Corporation of India (NPCI) confirms a steep reduction in the months when lockdowns were implemented3 in the digital payments industry (primarily due to the impact on the travel, hospitality and retail sectors). However, the government and authorities have promoted digital payments like as NEFT, IMPS, UPI, BHIM, etc. to prevent using cash, which has a larger risk of COVID-19 transmission. These efforts, coupled with the liberalisation of the economy, are evident in the rapid recovery of different digital payment systems on NPCI. This obviously implies that the negative effect of COVID-19 on digital payments is temporary, and that the Indian digital payment ecosystem will swiftly develop to shape post-COVID-19 growth.

The current study is an attempt to examine the factors that determine mobile banking adoption, from the customer's perspective.

Research Question

What are the factors that determine mobile banking adoption during the corona crisis in India?

Significance of research:

The study aims to examine the factors that determine mobile banking adoption during corona crisis in India, through the customer's perspective. The participation of customers is in itself a vital area which is yet not explored fully. Loyalty programs and various user friendly features also need to be examined thoroughly and also explored as these are considered as drivers for acceptance of mobile banking. This can serve as a reference study while designing new investigation and betterment of existing platforms.

Research Objective

1) To assess the factors determining mobile banking adoption during Corona crisis in India.
2) To analyze the experience of customers during Corona crisis & their attitude towards mobile banking.
3) To understand customer perception and acceptance of mobile banking.
4) To understand the usage frequency and pattern of mobile banking usage post Corona crisis.
5) To understand the key factors influencing customers' perception about mobile banking usage, post corona crisis. (The influence on customer's perception and purchasing behaviour)

2. Review of Literature

There are various studies on mobile banking adoption, some of which are mentioned below:

1. Simmons, K. (2016). Mobile Payments, Payment Cards and Mobile E-Commerce in the Asia Pacific region: Study on Emerging Trends and Key Developments. AB Digital Press, This study was done in the context of the Asia Pacific region and the mobile retail industry in particular. It brought out three important findings relating to consumer adoption, incumbent payment card usage and engaged in a discussion on the economic development implications of mobile payments.
2. Gartner, M. (2018) "Mobile Payments 2018: Forecast & Opportunities", Gartner, Inc., This study was done on an international scale with research from 38 countries across Europe, North America and Asia Pacific regions. It examined the growth potential for mobile payments for each of these regions due to an increase in smartphone penetration levels and a growing consumer base that has more spending power. The findings of the study indicate that consumers will make mobile payments more frequently in the future.
3. Huddleston, B. and Thurlow, M. (2016) "Mobile Banking: Reviving a Disrupted Market", Prepared for Government of India, Central Board of Direct Taxes (CBDT), This study highlights the global growth story behind the adoption of mobile payments. It gives a comparative analysis of mobile banking adoption year on year from 2011–2015 in an international market that has been disrupted by the introduction of Apple Pay and Android Pay into US/UK/EUR markets followed by other countries globally. The study also highlights the role of mobile banking as a driver of digital commerce.
4. Narayanan, A., Schuurman, C., &Pachai, M. (2016). "Mobile Commerce in Emerging Economies", Morgan Stanley Technology, Media & Telecoms Research (2011–2016), this paper provides an analysis of mobile banking usage trends in India and other emerging markets. The paper provides insights into the impact that m-payments will have on the digital economy in India over the next four to five years. The study indicates that there is significant potential for mobile banking usage in India as users adopt this technology gradually but rapidly at least through 2017 and into 2018 and beyond.
5. Amico, M. and Perez, N. (2012). "Mobile payments in Latin America". Citeseer: 12561. This study provides a comprehensive examination of the potential for mobile payment services in Latin America with a focus on Brazil. It highlights the growth potentials present in Latin American mobile commerce and also discusses how mobile payments will be used to enhance consumers' online shopping experience.
6. Willumsen, L., Zhao, S., & Wen, Y. (2013). "Mobile Payments: Adoption and Usage". University of Washington, Seattle, Department of Computer Science & Engineering, This study comprehensively examines the evolution and adoption of mobile payments with a focus on the drivers that have led to its growth. The study also attempts to analyze

the different aspects that are driving the growth of mobile payments and challenges that users face in adopting these devices.

Research Gap:

A key gap in this research is to identify the mobile banking preferred by the population and how they were introduced.

Consumer issues, such as security of mobile banking, ease of use, value for money and loyalty programs must also be addressed.

One aspect that needs to be examined is how loyalty programs work on mobile payments. The main objective of this study is to analyze customer behaviour post crises due to acute awareness among customers regarding how to use QR code technology and digital payments. This can lead in shaping customer behaviour post-corona, which will help establish better practices in digital payment apps from vendors and market itself as a lucrative opportunity for vendors.

The following are some limitations for this study

1) The results may not be generalizable as it was conducted only in Pune (Maharashtra)
2) It is not for any specific brand name but for a broad classification like mobile banking.
3) It is an exploratory study and hence any results are subjective;
4) The study was done only on WhatsApp groups, not on Facebook groups.
5) No research was done on the new mobile banking Paytm as these two are not very close together and hence findings might be different.
6) The usage of a mobile banking depends strictly upon the smartphone the customer is using and if they have installed m-banking apps..

3. Methodology

Following methodology was designed for the study to collect primary data.

a. Identify a sample of 77 consumers who have adopted mobile banking during the corona crisis.
b. Conduct the survey
c. Summarize the responses
d. Apply correlation analysis and check the level of significance.
e. Analyze the results

The hypotheses set in this regard were as under:

Hypotheses:

H1: Customer loyalty, ease of use/familiarity with features and advertising & promotions have highest influence on customer decision to adopt mobile banking.

H2: Trust level is another key factor for determining customer behaviour of adopting mobile banking.

The study was conducted across the city of Pune (Maharashtra)

Scheme formed for testing of hypotheses

a. Responses were collected under 4 sections:
a. First section of the questionnaire was dedicated to the profile information of the employees
b. Second section was dedicated to : Trust, Customer loyalty, ease of use/familiarity with features
c. Third section gathered responses for determining customer behavior of adopting mobile banking.
b. For each of the sections an average was calculated.
c. Percentages to questions under a particular section of the questionnaire were averaged to get a single score for that section,
d. The section-wise average score was considered for the purpose of conducting a correlation analysis.
e. P-values were calculated, and the null hypothesis was checked for rejection or non-rejection.

Cronbach's alpha score for the questionnaire was calculated the results have been discussed in the next section of the paper.

4. Results and Discussion

Table 1: Results of the Cronbach's Alpha

Sr. No.	Section of the questionnaire	Number of Items	Cronbach's Alpha value
1	Customer Loyalty	10	0.781
2	Ease of Use	12	0.784
3	Familiarity with the features	8	0.771
4	Usage intention	6	0.841
5	Usage behavior	8	0.773
6	Whole Questionnaire	44	0.712

The above table shows that the value of Cronbach's alpha was above 0.7 in each of the cases. This shows the level of internal consistency and proves the validity of the measures that have been calculated.

Correlations

		Trust	Ease of Use	Familiarity with the features	Usage intention	Usage behaviour	Customer Loyalty
Trust	Pearson Correlation	1	.743**	.713**	.586**	.603**	.086
	Sig. (2-tailed)		.000	.000	.000	.000	.460
	N	77	77	77	77	77	77
Ease of Use	Pearson Correlation	.743**	1	.488**	.423**	.375**	.223
	Sig. (2-tailed)	.000		.000	.000	.001	.051
	N	77	77	77	77	77	77
Familiarity with the features	Pearson Correlation	.713**	.488**	1	.304**	.642**	.090
	Sig. (2-tailed)	.000	.000		.007	.000	.436
	N	77	77	77	77	77	77
Usage intention	Pearson Correlation	.586**	.423**	.304**	1	.182	.390**
	Sig. (2-tailed)	.000	.000	.007		.114	.000
	N	77	77	77	77	77	77
Usage behaviour	Pearson Correlation	.603**	.375**	.642**	.182	1	.024
	Sig. (2-tailed)	.000	.001	.000	.114		.837
	N	77	77	77	77	77	77
Customer Loyalty	Pearson Correlation	.086	.223	.090	.390**	.024	1
	Sig. (2-tailed)	.460	.051	.436	.000	.837	
	N	77	77	77	77	77	77

**. Correlation is significant at the 0.01 level (2-tailed).
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The above table shows that Trust has the highest significant positive correlation with Usage intention and Usage Behaviour.

Table 3. Linear Regression Analysis

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Familiarity with the features, Ease of Use, Trust[b]	.	Enter

a. Dependent Variable: Usage behaviour
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680[a]	.462	.440	.48652

a. Predictors: (Constant), Familiarity with the features, Ease of Use, Trust

R Square: This is the proportion of the variance in the response variable that can be explained by the explanatory variable. In the above table, 46.2% of the variation in customer perception can be explained by the level of emotional intelligence.

Std. Error of the Estimate: The standard error is the average distance that the observed values fall from the regression line. The observed values fall an average of 0.48652units from the regression line.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.850	3	4.950	20.912	.000[b]
	Residual	17.280	73	.237		
	Total	32.130	76			

a. Dependent Variable: Usage behaviour
b. Predictors: (Constant), Familiarity with the features, Ease of Use, Trust

The p-value associated with the test statistic is less than 0.05, we can conclude that the predictor variable is statistically significant.

5. Conclusion

Customer loyalty, ease of use/familiarity with features and advertising & promotions have highest influence on customer decision to adopt mobile banking.

The following are important observations from this study:

1) Loyal customers of mobile banking have higher tendency to stick to a particular mobile banking.
2) Usage of mobile banking is on the rise and users expect a more secure payment mechanism in the future.
3) Usage patterns of merchants are more diverse, while consumers tend to be more homogeneous in their usage patterns.
4) Mobile Banking represents a good point of entry into digital commerce for smaller businesses.
5) A key advantage of using mobile banking is that it provides users with enhanced convenience, allowing them to make payments anywhere at any time with just one click.

6) Trust level is an important influencing factor for customers' perception about mobile banking.

Mobile Bankingis typically used for transferring money from one account to another. However, mobile banking has a broad set of applications that have yet to be fully explored.

Suggestions:

1. Online payments with mobile banking have been increasing by 18%-20% annually.
2. The growth of online shopping may be attributed to the increasing number of smartphone users and faster internet connections.
3. Understanding customer behaviour with mobile banking was critical as people have a tendency to stick to one banking and do not switch banking frequently.
4. Mobile bankinghas the potential to be used for buying products or services in real time without the need for exchanging money. However this feature can only be used when there are a large number of merchants and consumers using it.
5. Mobile bankingis seen as a strong competitor to credit cards in the e-commerce.

Mobile banking can provide mobile payment security, which will increase trust level of customer towards the new payment system.

Mobile bankinghas potential to penetrate markets and compete with traditional debit/credit cards for online payments. However, the key condition for mobile banking to succeed is its user interface. It was found that customers' willingness to use a mobile banking is dependent upon the usability. The usability of mobile banking used by consumers determines whether they will adopt it and if they adopt it, it changes their behaviour with respect to other transaction methods including cash or plastic payment instruments as well as other mobile apps (apps such as messaging and navigation).

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