STUDY ON EFFECT OF PERCEIVED EFFICIENCY OF FEATURES OF MOBILE BANKING APP AND DIGITAL LITERACY OF USER ON PERCEIVED TRUST IN THE APP

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ABSTRACT
Past studies have suggested that increased use of FinTech services will lead to deepening of financial inclusion. Thus, the study aimed at examining what factors lead to increased use of FinTech services. The researchers thus focused on usage of Mobile banking apps which currently is the essential FinTech service from users' perspective. Through secondary research, it was thought that perception of efficiency of features of mobile banking apps and digital literacy of app users will significantly affect perceived trust in the app. The purpose of this study is to identify significant antecedents of perceived trust in mobile banking apps and to investigate the effect of such antecedents on perceived trust. Structured questionnaire was developed with reference to past studies and used for data collection. 123 responses were analysed in SPSS. The results showed that perceived trust is significantly positively influenced by perception of efficiency of features of the app and digital literacy of users. Limitations and direction for future studies are given in the paper.
Keywords: FinTech, Financial Inclusion, Digital Literacy, Perceived Trust, Banking Mobile App.

Introduction

Financial inclusion is crucial for a country like India because it has a large population that is economically vulnerable and underserved by traditional financial institutions. According to the World Bank, only 36% of the adult population in India had access to a bank account in 2017 (World Bank, 2017). This lack of financial access and inclusion can lead to a host of issues, including poverty, income inequality, and limited economic growth. Financial inclusion can help to address these issues by providing individuals and small businesses with access to financial services, such as savings accounts, credit, insurance, and digital payments. This can help to promote economic growth, reduce poverty, and improve financial stability. Therefore, financial inclusion is important for a country like India because it can promote economic growth, reduce poverty, improve financial stability, promote gender equality, and address corruption and money laundering. By increasing access to financial services for underserved and vulnerable populations, India can work towards achieving these important goals.

Fintech services can deepen financial inclusion by overcoming physical barriers, lowering transaction costs, providing credit to underserved individuals, promoting digital payments, and enhancing financial literacy. Through the use of technology, fintech providers can expand access to financial services, reduce costs, and improve financial education, thereby increasing the number of individuals and businesses who are able to participate in the formal financial system.

In recent years, FinTech has revolutionized the banking sector, offering new financial services through innovative technologies. The rapid pace of technological advancements has led to an increase in the adoption of mobile banking apps by consumers worldwide. These apps offer users the convenience of banking services at their fingertips, allowing them to make transactions, check account balances, and monitor their finances from anywhere, at any time.

However, the adoption of mobile banking apps is dependent on the trust users have in these apps. Trust is a critical factor that influences the adoption and usage of mobile banking apps. Consumers need to trust the security and reliability of the app, the privacy of their financial information, and the credibility of the financial institution providing the app. In this context, understanding the factors that influence trust in mobile banking apps is of utmost importance.

One of the factors that affect trust in mobile banking apps is the features of the app itself. The features of the app, such as ease of use, security measures, and availability of customer support, play a significant role in shaping users' perception of trust. Furthermore, the level of digital literacy of users is also an important factor that impacts trust in mobile banking apps. Digital literacy refers to the ability of users to use digital technologies effectively and efficiently to achieve their goals.

Literature Review

The World Bank Group, FinTech has the potential to promote financial inclusion by providing access to financial services to underserved populations. The report argues that FinTech can help to overcome barriers to financial inclusion, such as physical distance, lack of infrastructure, and high transaction costs (World Bank Group, 2018).

Demirguc-Kunt et al. (2018) found that the adoption of mobile banking services is positively associated with financial inclusion. The study used data from 26 developing countries and found that mobile banking users are more likely to have a bank account, have access to credit, and have a higher level of financial literacy than non-users.

Caliendo et al. (2018) found that FinTech can promote financial inclusion by providing access to credit to previously excluded or underserved populations. The study used data from a peer-to-peer lending platform in the United States and found that borrowers from underserved areas are more likely to receive loans through the platform than borrowers from more affluent areas.

The Brookings Institution (2016) argues that FinTech can promote financial inclusion by providing access to digital payment systems, which can reduce the costs and risks associated with cash-based transactions. The report also notes that FinTech can provide access to other financial services, such as savings and insurance, which can promote financial stability and resilience.

Maruf et al. (2018) found that the adoption of mobile money services in Bangladesh has led to an increase in financial inclusion. The study used survey data from mobile money users and non-users and found that mobile money users are more likely to have a bank account, save money, and have access to credit than non-users.

Hassan et al (2022) identified the factors that influence mobile fintech adoption intention of consumers in Bangladesh Market. A research model was designed. To test if the model is reliable, a questionnaire was framed and circulated. Total 218 responses were received by the researchers. The responses were analysed on the designed research model through Smart PLS. The result showed that mobile fintech services adoption was significantly impacted by social influence, trust, perceived benefits, facilitating conditions. The study recommended that the mobile fintech service providers must consider the needs and literacy rates of their consumers while developing a user interface. If the user interface is user friendly and easy to operate then it may promote the use of fintech services for transactions. This eventually will lead to financial inclusion in the country.

Kim et al (2008) tried to answer the questions-how trust and risk are important in consumer e-buying process, antecedents of trust and risk in e-commerce and effect of trust and risk on consumer buying behaviour. The study had come up with a theoretical model to describe consumer decision making process from an internet source backed up by trust. To test the model researchers collected responses online and analysed the responses. The results have shown that the purchase decision process is strongly impacted by trust and perceived risk in online settings. Consumers trust in websites is influenced by the reputation of the company, privacy concerns, security concerns and quality of information provided on the website. The study also found that endorsement by third-party agencies does not influence consumers' trust.

Meta-analysis was conducted by Liu et al (2019) to investigate the factors affecting the consumers mobile payment behaviour. The study reported that many earlier empirical studies have found that perceived usefulness, perceived risk, trust, influence of peers and friends, trust and perceived ease of use are factors which affect consumers' intentions to use mobile payment services. The study recommends that to encourage the mobile payment adoption among consumers, usefulness, risk, trust, influence of peers, family and friends and ease of use must be carefully studied from customers' perspective. The same factors must be incorporated in the products (mobile payment) and marketing activities.

Le (2019) examined financial inclusion in the Asian Continent. The study had selected a sample of 31 countries. Data from these countries were collected from 2004 till 2016. Three financial dimensions viz. Financial Inclusion, Financial efficiency and financial sustainability were constructed and studied. The study found that there is no consistency in financial inclusion trends in various countries. The impact of financial inclusion on financial efficiency and sustainability was analysed and it was found that increased financial inclusion resulted in decreased financial efficiency and increased financial sustainability. The study insisted that there should be proper policies to handle financial efficiency to enhance it. Attention to only financial inclusion is not enough.

Senyo, Osabutey (2020) report that financial technologies are game changers and increase financial inclusion. Authors argue that knowledge about antecedents that affect users' perception of fintech services will help in deepening financial inclusion. Study collected responses from 294 respondents. The result of the study showed that performance and effort expectancy are significant antecedents of intention to use fintech. The results also showed that price value, social influence and perceived risks do not affect intention to use. This finding, however, is contrary to findings of other researches.

Wu , Wang (2005) proposed a model wherein parameters associated with innovation diffusion theory perceived risk and cost were assumed to have an impact on technology acceptance. The model was tested empirically. The findings showed that perceived ease of use did not significantly affect users' intention to use mobile ecommerce. Compatibility with mobile ecommerce was found to have the highest significant impact on intention among all other variables. The surprising finding of the study was about perceived risk and behavioural intent. The result showed that there was a positive impact of perceived risk on intention to use mobile ecommerce.

Verdegem ,Marez (2011), had reported that the majority of innovations were failing. This was primarily because Innovators of ICT were giving too much importance to the product and its technical aspects only and lost sight of actual customer requirements and their needs. ICT which considers these aspects and pay attention to the details of their users generally succeed in providing right solutions. The study showed that user attitudes and preferences must be observed and understood if ICT has to be made acceptable by its users.

Dawood et al (2021) conducted literature review to understand the research work which had studied the mediating impact of perceived trust in financial business models on intention and adoption of FinTech services based on mobile technology. Study found that there were only 4 studies in quality research journals till date. The study concluded that Perceived trust has a significant mediating impact on intention and adoption of FinTech services.

Objective of the study

Given the importance of trust in mobile banking apps, it is necessary to investigate the factors that influence trust in these apps. The present research aims :

- To examine the impact of perception of efficiency of features of mobile banking app and digital literacy of app users on perceived trust in mobile banking apps.

Research Methodology

To meet the objectives of the study both primary and secondary data were used. Primary data was collected through a structured questionnaire. The questionnaire was developed with reference to scales used in past studies. The questionnaire is divided into four parts. First part included the question items related to perception about features of the app, second part was developed to record the digital literacy of mobile banking app users. Third part was the scale to measure the perceived trust on the app. All these three subscales were using five-point Likert's scale. Fourth part of the questionnaire was designed to collect demographic information of the app users. The questionnaire was shown to bank app users who were selected based on judgment at the branches of nationalised banks. Total 150 bank app users were approached; however , 20 users turned down the request to respond. Out of 130 respondents some respondents had not given their demographic information and some were observed to unengaged respondents. Total 7 such responses were discarded from the analysis. This is how 123 responses were finally considered for the analysis. Past studies published on similar topics were the source of secondary research.

Hypothesis of the study

H0- Perception of efficiency of features of Mobile banking app and Digital Literacy of person doesn't significantly affect perceived trust on the banking app.

H_1- Perception of efficiency of features of Mobile banking app and Digital Literacy of person significantly affect perceived trust on the banking app.

<u>Data Analysis and discussion</u>

Cronbach's Alpha	N of Items
.765	25

Table 1 Reliability Statistics

In social science studies Cronbach's alpha close to 1 indicates that there is greater internal consistency of items in the scale (Gliem and Gliem 2003). Thus, it is interpreted that the questionnaire is reliable.

		Frequency	Percent
Age	21-25	63	51.2
	26-30	9	7.3
	31-35	12	9.8
	36-40	16	13
	41-45	17	13.8
	46-50	6	4.9
	Total	123	100
Gender	Female	46	37.4
	Male	77	62.6
	Total	123	100
Occupation	Salaried	44	35.8
	self-employed	10	8.1
	Business	15	12.2
	Retired	8	6.5
	Student	46	37.4
	Total	123	100
Annual income	less than 3 lakh	47	38.2
	3-6 lakh	19	15.4
	6-9 lakh	14	11.4
	9-12 lakh	17	13.8
	12-15 lakh	20	16.3
	more than 18 lakh	6	4.9
	Total	123	100
Highest Education	Graduation	35	28.5
	Post-graduation	62	50.4
	PhD	23	18.7
	Professionals (doctor, lawyer, CA etc)	3	2.4
	Total	123	100
Area of residence	Urban	88	71.5
	Rural	14	11.4
	Semi-urban	21	17.1
	Total	123	100

Table 2. Profile of respondents

Most of the respondents were below 25 years of age (51.2%), male (62.6%), salaried (35.8%) and students (46%), having income of less than 3 lakh per annum (38.2%). Most of them (50%) are post graduates and from urban areas (71.5%).

	N	Minimum	Maximum	Mean	Std. Deviation
QR code payment	123	1.00	5.00	4.1870	1.05853
Utility bill payments feature	123	1.00	5.00	4.0407	.95298
Intelligent Chat Boat feature	123	2.00	5.00	4.0163	.94941
Account Management	123	1.00	5.00	4.0163	.84914
Deposit/ withdrawal feature	123	1.00	5.00	4.0000	.83959
Advanced security and fraud alerts	123	1.00	5.00	3.9837	.89611
Peer- to peer payment feature	123	1.00	5.00	3.8374	.81355
ATM locator	123	1.00	5.00	3.7154	1.12731
Mobile check deposit	123	1.00	5.00	3.6829	.89915
Loan Management Feature	123	1.00	5.00	3.5203	1.18287
Interest rate calculation Feature	123	1.00	5.00	3.4228	1.30578
Valid N (listwise)	123				

Table 3 Descriptive Statistics- Perception of Features of mobile app

QR code payment feature received the highest rating among all other features and interest rate calculation feature was least efficient among all.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How would you rate your mobile literacy	123	4.00	5.00	4.5122	.50190
How would you rate your digital device handling skill	123	2.00	5.00	4.4065	.58446
How would you rate your Internet literacy (the ability to use the Internet)?	123	4.00	5.00	4.3984	.49157
How would you rate your computer literacy (the ability to use the computer)	123	4.00	5.00	4.3496	.47879
How would you rate your Web search skill on internet	123	4.00	5.00	4.3008	.46049
How would you rate your typing skills	123	2.00	5.00	4.1382	.64433
Valid N (listwise)	123				

Table 4- Descriptive Statistics -Digital literacy

Digital literacy was found to be good among the respondents. Typing skill was the lowest rated digital literacy attribute among all.

	N	Minimum	Maximum	Mean	Std. Deviation
Overall, I think that there is little benefit to using Mobile Banking apps compared to traditional financial services.	123	1.00	5.00	3.5772	1.08649
Using Mobile banking app is associated with a high level of risk.	123	1.00	5.00	3.2520	.89253
Valid N (listwise)	123				

Table 5 - Descriptive Statistics -Perceived Trust

The highest mean for perceived trust item was 3.57. This indicated that respondents have only slight trust on mobile banking apps. They are still not confident about the security of the banking app.

Hypothesis Testing

H_1- Perception of efficiency of features of Mobile banking app and Digital Literacy of person significantly affect perceived trust on the banking app.

To test this hypothesis regression analysis was used. The result of the analysis is shown below

1	.783[a]	.645	.574	.61830

Table 6- Model Summary

a. Predictors: (Constant), Digital Literacy, Features

The adjusted R square value is 0.574, it indicated that 57.4% variance in Perceived trust is explained by perception of efficiency of features and digital literacy of users.

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	7.000	2	3.500	5.227	.007[b]
1	Residual	80.354	120	.670		
	Total	87.354	122			

Table 7- ANOVA (Explanatory Power of the model)

a. Dependent Variable: Perceived Trust
b. Predictors: (Constant), Digital Literacy, Features

To check if this model has significant explanatory power, ANOVA table is observed. From the table it is seen that significance value is less than .05 ($p<.05$). Hence there is significant explanatory power.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	2.746	.467		12.699	.000
1	Features	.232	.097	.214	2.392	.018
	Digital Literacy	.407	.247	.147	4.649	.000

Table 8- Coefficients

a. Dependent Variable: Perceived Trust

From the coefficient table unstandardized coefficients of independent variables were observed and they were found to have significant impact ($p<.05$) on perceived trust. Thus, we fail to reject the null hypothesis 'H_0-Perception of efficiency of features of Mobile banking app and Digital Literacy of person significantly affect perceived trust on the banking app'. Therefore, we accept H_1.

From the result it is interpreted that 1 unit rise in perception of features of the app leads to .232 unit increase in perceived trust and 1 unit rise in digital literacy of users will result in .407 units in perceived trust.

Conclusion

The results showed that both variables-perception of features of mobile banking app and digital literacy of users have a significant effect on perceived trust on the mobile banking app. Therefore, to increase the trust of users on the app, marketers must also increase the perception of features. They must include features which are required by people. If user-friendly interfaces and useful features are incorporated in the app, the trust on the app will also increase significantly. Simultaneously marketers must also try to increase the digital literacy of the users by running some campaigns, holding awareness camps nearby to banks. These practices will lead to increased trust on the apps. This in turn will cause increased usage of such Fintech apps. Increased use of FinTech apps/ services of banks will lead to deepened financial inclusion in India. Therefore, the government should also encourage the development of such FinTech apps and keep on promoting digitization of essential financial services.

Sample size used in this study is relatively small to generalise the findings of the study. Further the responses were collected from one district only. Future studies may include responses from various other districts. Future studies may also identify more antecedents of perceived trust on mobile banking apps and study their relationships. Such studies will help practitioners to increase the trust in App and thus deepen the financial inclusion.

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