

Emerging Market & Mobile Technology Usage: Evaluating intention to Use Mobile Banking in India

* Mr. Junaid Hassan

** Dr. Fayaz Ahmad

*** Mr. Aarif Amin

**** Mr. Ishfaq Bashir



ABSTRACT

Mobile banking serves among the latest advancements in the financial sector with pragmatic value to both banks and clients. The swift progression of technology and gadgets has invigorated the financial industry towards urging clients to bank online. However, a report demonstrated that mobile banking acknowledgment was lower than internet banking and other mediums. Encouraging customers to utilize mobile phones for banking issues and negative patterns in acknowledging this innovation make it imperious to investigate the determinants that impact users' intention towards mobile banking adoption. This investigation was completed in India's northern region and using the purposive sampling method, 584 respondents were focused on, which resulted in 403 functional responses. Using Structural Equation Modeling (SEM), the responses were analyzed, and the outcome uncovered that seven dimensions impact users' expectation to recognize mobile banking while two determinants have a negative impact.

Keywords: Mobile Banking, Intention, India, Relative Advantage, Social Influence

* Research Scholar, Central University of Kashmir, India

** Professor, Department of Management Studies, Central University of Kashmir, India

*** Research Scholar, Central University of Kashmir, India

**** Research Scholar, Central University of Kashmir, India



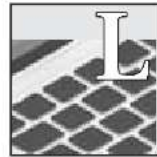
INTRODUCTION

The mobile business has been mounting swiftly in the world by way of extending its application from mere communication to a lifestyle gadget. It has materialized a novel platform for fulfilling consumers' diverse habitual wants (Skeldon, 2011). Keeping into thought the significance of this marvel in the consumers' lifestyle, financial institutions have consistently invested significant resources in this business as a result of which "mobile banking applications" are sprouting as a novel retail medium for banks (Malaquias & Hwang, 2019; Picoto & Pinto, 2021). It has offered various standards such as omnipresence, personalization, adaptability, spread, and other imperatives that were less predominant in the traditional digital banking channels (Geo et al., 2017). Recognizing the importance of this advancement, financial institutions worldwide have consistently attempted to render their services through this technology, including banks operating in India. As of now, more than 450 banks have been recognized to make available m-banking services in "India" ("Reserve Bank of India [RBI] The mobile 2019). Despite these advantageous facilities, the extant literature disguises that m-banking remains one of the least espoused categories of self-banking administrations contrasted with web banking or mechanized teller machines (Chakiso, 2019). It reflects with Hanafizadeh et al. (2014), who opined that regardless of expanded availability of m-banking & innovative advancement, the magnitude of users' doesn't coordinate with the prospects thereby, warrants for further examinations.

Mobile banking has the inherent advantage of making people's lives comfortable in the social and economic context. India being one of the fastest developing countries, is transforming into the quickest mobile market (Chawla & Joshi, 2017) as growth foreseen by the advertisers will be almost around seventy-five percent of the total populace by 2025 (Global System for Mobile Communications [GSMA], 2018a). It will incorporate around 310 million new endorsers to the mobile economy within the coming three years (Global System for Mobile Communications [GSMA], 2017b), with figure touching around 530 million by 2018 ("India set to have 530 million Smartphone users in 2018", 2017), "with the north zone having the noteworthy rate, with more than one of every ten owning a smartphone. Western India follows with an 8 percent incidence in the region, while it stands 6 percent for the south and east zones respectively" (Nielsen, 2012). Although the degree of mobile banking adoption has been expanding throughout the last few years, it has yet to be copiously implemented as the novel payment inclination in India (Liebana-Cabanillas et al., 2020; Singh et al., 2020). Thus, a profound examination of attributes influencing mobile banking's intention would be valuable to improve the comprehension of users' comportment and innovation usage (Liebana-Cabanillas et al., 2020).

Endeavors to create an ideal model to precisely anticipate the intention to embrace a novel innovation have incorporated models from past investigations on innovation acceptance in general and m-banking acceptance specifically (Puschel et al., 2010). However, most of the investigations have primarily focused on internet banking (Ho et al., 2020; Jamshidi et al., 2010). Besides, the fact is that the prime models and theories

centering innovation acceptance and acknowledgment have risen out of and developed in western nations with cutting edge economies. Since maximum m-banking investigations have utilized a broad scope of systems and strategies, there is a pestering requirement of a coordinated model for attributes influencing intention to embrace m-banking through combining and synchronizing the constructs of the most popular models of innovation adoption particularly from the in the context of developing nations (Liebana-Cabanillas et al., 2020; Picoto & Pinto, 2020; Shankar & Rishi, 2020). Undoubtedly, if we have to comprehend meticulously, such integrated models can clarify and envisage users' actions in nations with the maximum populace (Khosrow-Pour, 2017). The people are hesitant in adopting m-banking on the grounds that the developing countries like India have not redesigned their telecom and banking foundation which supports mobile banking (Picoto & Pinto, 2020). This investigation tends to address this gap & intends to conceptualize a model that can be acquainted as an essential mediation to address the users' intention of adopting mobile banking. This examination adds to the comprehension of how to upgrade acknowledgment of mobile banking in India by distinguishing the fundamental deterrents (from the client's point of view) that the banking sector needs to focus upon to accelerate the dispersion of m-banking and break down the similitudes and contrasts arising in the progression of mobile banking acknowledgment. Consequently, the investigation broadens the mobile banking literature in the Indian setting.



LITERATURE REVIEW

The intensifying advances and innovations within the banking sector are revolutionizing. They have created uncertainty and excitement among an individual's banking mindset who continues to remain on their toes to see what these technologies have to offer him. However, there is no unified position from the user's end regarding the success or failure of these developments. It relies mostly on the affirmation by an individual in terms of the extent to which it satisfies the need (Hassan & Nika, 2021). In that capacity, the subject of elements that tend to bear on the consumer's mindset has received considerable attention from the last few years. Mehrad and Mohammadi (2016), through their study, uncovered that a colossal number of elements create a notion within the mind of a user, which was contended by Mukherjee and Nath (2003), who opined that in an online-based financial setting, four things determine to what extent an individual will acknowledge an innovation which includes reliability, protection, safety, and trustworthiness of the procedure. Usually, users opt for technologies that add some value to their lives. Conversely, some could rule in opposition to it if they see the development to be flighty and difficult to utilize. Similarly, some other portion may be worried about their safety and protection in terms of information and money and may build up an absence of trust in technological advancement. In contrast, any other section may be worried about the transaction cost Chawla & Joshi, 2017. In the past years, much attention has been given to explore internet banking adoption as it was the lone way of conducting financial transactions without being present at a virtual place. However, the emergence of smartphones created a new era in the field of innovations. Researchers began looking at it as a possibly

robust medium for regulating financial offerings. They started researching the consumers, i.e., how, when, and where they use such an advanced innovation. With this theme, researchers started exploring different dimensions of mobile banking. Researchers in different studies have used more than 20 variables; however, just nine factors with adequate literature support were recognized and utilized for this investigation. Based on the literature overview of different studies by various authors, Perceived Usefulness (P.U.) and Perceived Ease of Use (PEOU), which are the assembles of the TAM (Technology Acceptance Model), Social Influence (S.I.), which is a key construct of TPB (Theory Of Planned Behavior), Facilitating Conditions (F.C.) which is a build of UTAUT (Unified Theory Of Acceptance and Use Of Technology), Relative Advantage (R A) which is a construct of IDT (Innovation Diffusion Theory), Trust, Perceived self-efficacy (PSE) which is a develop of SCT (Social Cognitive Theory), Perceived Risk, Awareness, were the key and predominant motives that impact in selection and acknowledgment of mobile banking and were used for this study.



RESEARCH FRAMEWORK AND HYPOTHESES

PU has been defined as “the prospective user’s subjective probability that using a specific application system will increase his or her job performance within an organizational context” (Akturan & Tezcan, 2012, p.446). From the literature point of view, the impact of P.U. is broadly acknowledged, and various examinations have verified its association empirically and found that P.U. serves as a valuable function in recognizing mobile banking. It was established to be one of the key variables influencing M-banking facilities’ continued usage (Faqih & Jaradat, 2015; Thankur & Srivastava, 2012; Yen & Wu, 2016. In Jordan, Alalwan et al., (2015), reported P.U. as the driver that encourages the aim of embracing m-banking in a positive manner which was further supported by the study undertaken in Australia by Wessels and Drennan (2010), who uncovered that P.U. tends to have a strong constructive impression on adoption intention of using m-banking. Similarly, in India, PU was determined to negatively influence M-payment acknowledgment intention (Shankar & Datta, 2018). As such, it is hypothesized that:

H₁: “Perceived Usefulness has a significant impact on users’ intention to adopt Mobile Banking services”.

Within the TAM framework, “PEOU” is asserted as one of the contributing features that encourage the adoption intention of a user in terms of using a system. It is “characterized as the degree to which a user holds a notion that learning or using a system is handy to practice: (Singh & Srivastava, 2018). A superfluity of investigations on mobile banking has demonstrated the substantial influence of PEOU on consumers’ adoption intention and utilization of m-banking (Kim & Baek, 2017; Tam & Oliveira, 2017; Thankur, & Srivastava, 2014; Yen & Wu, 2016; Yen et al., 2010). Mehrad and Mohammadi, (2016), in Iran, found that PEOU significantly impacts in case of selecting mobile banking and serves as a base for users’ as far as acceptance or rejection of mobile banking is concerned. Similarly, observed that PEOU is a standout amongst the critical drivers that generally affect Mobile Banking. Subsequently, it is hypothesized that:

H₂: “Perceived Ease of Use has a significant impact on users’ intention to adopt Mobile Banking services.”

“Social Influence, also known as social Norms” (Makanyeza, 2017), endeavors to comprehend the modifications introduced in a consumer’s habit by the outside sources involving the individuals who are close to him, the perception of whom can lead to acceptance or denial of a technology. Its significance has been primarily acknowledged within mobile banking and internet banking studies (Thakur & Srivastava, 2014; Patel & Patel, 2018). Zhou et al., (2010), through their study, revealed that S.I significantly affects user adoption. However, a study of Tan and Lau, (2016) empirically found out that social influence has an instantaneous effect on the mobile banking adoption intention which was validated by the study undertaken by Oliveira et al., (2016) in Portugal, who observed that social influence impacts m-banking users’ directly as well as indirectly and recommendation intention of this technology. Subsequently, it is hypothesized that:

H₃: “Social Influence has a significant impact on users’ intention to adopt Mobile Banking services.”

Facilitating Conditions reflects the assets (resources and technological infrastructure) and knowledge possessed by an individual, including the support provided by the bank round the clock. It is a considerable factor that influences the users’ adoption (Zhou et al., 2010). argued that facilitating conditions stanchly sways the users’ aim of acknowledging m-banking, further acknowledged by Afshan and Sharif’s (2015) study uncovered Facilitating Conditions have a critical relationship with the intention of embracing m-banking. Shambare (2013) opined that in the case of an encouraging environment, there is a greater chance that users will embrace headway. Subsequently, it is hypothesized that:

H₄: “Facilitating Conditions have a significant impact on users’ intention to adopt Mobile Banking services.”

“Relative Advantage” is characterized as how much an advancement presents extra advantages than its forerunner (Makanyeza, 2017). In the current times, a user assesses what edge a product, service, or a particular technology provides than its precursor (Hassan & Nika, 2018). As such, under the domain of technology, several studies have examined the impact of this construct. The research conducted by Lin, (2011) revealed that relative advantage significantly influences the attitude, which in turn leads to mobile banking adoption intention. Similarly, Makanyeza (2017) in Zimbabwe found that Relative Advantage significantly impacts m-banking acknowledgment intention. Consequently, it is hypothesized that:

H₅: “Relative Advantage has a significant impact on users’ intention to adopt Mobile Banking services.”

Acceptance of m-banking is an outcome of the trust that a customer possesses. It has been “characterized as a person’s eagerness to acknowledge vulnerability on the grounds of constructive expectations in regards to the habits or intention of one another in a circumstance described by interdependence and threats”. Trust serves as the decisive factor as far as reception or dismissal of innovation is

concerned. Alalwan et al., (2017) expressed that trust essentially and emphatically influences behavioral intention. In like manner, the investigation led in Korea by Gu et al., (2009) has shown that trust is connected with the mobile banking adoption intention. While, as Koenig-Lewis et al., (2010) contended, trust is a crucial indicator that reduces the risk that a consumer perceives about mobile banking. Therefore, it is hypothesized that:

H₆: “Trust has a significant impact on users’ intention to adopt Mobile Banking services”.

Perceived Self-Efficacy has been “defined as an individual’s potential to ace an undertaking or circumstance and thereby effectively arrive at a preferred effect” (Bailey et al., 2017). In terms of the dimension of Self-Efficacy, earlier studies have proven that it is one of the prevalent beliefs that impact in acknowledging an innovation. Alalwan et al., (2017) found that PSE has a massive impression on customers’ social aim through their investigation. The finding was further supported by Shankar and Datta, (2018), who found that Perceived self-efficacy impacts the user’s adoption intention of M-payments positively. Similarly, in (Makanyeza, 2018) Chinhoyi, Zimbabwe, it was recorded that PSE has an optimistic impact on acknowledging m-banking offerings (Makanyeza, 2017). Subsequently, it is hypothesized that:

H₇: “Perceived Self-Efficacy has a significant impact on users’ intention to adopt Mobile Banking services.”

Risk has been defined as “the users’ conviction with respect to the probability of enduring a misfortune in the quest for an objective” (Mortimer et al., 2015). Risk & uncertainty are inherent properties that cannot be separated from any transaction (Tiwari et al., 2021). While performing a transaction, a user can experience different types of issues that may occur due to technical breakdown, inaccessibility of account, password breakdown, etc. Risk in the past has been studied to a greater extent under different domains. In the perspective of m-banking, it has been viewed as a critical construct of user’s adoption intention (Alalwan et al., 2018; Alalwan et al., 2017; Hanafizadeh et al., 2012; Mortimer et al., 2015). A considerable number of investigations have reported a substantial impact (Wessels & Drennan, 2010; Hanafizadeh et al., 2012). Dineshwar and Steven, (2013) observed that risk is the principal obstruction that impedes a user’s adoption intention of mobile banking. Similarly, Cruz et al., (2010) found that a greater part of users’ do not opt for mobile banking services, and the rationale behind it being the risk, which was upheld by the study results of Makenzeya (2017), which revealed that perceived risk adversely influences a user’s adoption intention. Through their study, Thakur and Srivastava (2014) concluded that a user could face as many as three risks, including; “security risk, privacy risk, & monetary risk.” Subsequently, it is hypothesized that:

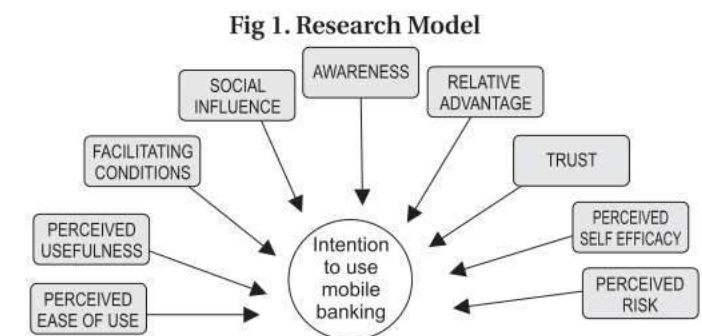
H₈: “Perceived Risk has a negative impact on users’ intention to adopt Mobile Banking services.”

Awareness has been “characterized as a procedure of information, influence, choice, and affirmation by a customer before being prepared to undertake an offering i.e. product or service” (Safeena et al., 2012). It is undoubtedly one of the

crucial reasons that help in the development of trust among users (Afshan & Sharif, 2015). Through their study, Pikkarainen et al., (2004) revealed that the information possessed by users optimistically affects online banking acknowledgment. Similarly, Sahin (2006) empirically explored that awareness prompts the acknowledgment of a new innovation since it limits the vulnerability related to it. Daud et al., (2011) in Malaysia examined the factors that encourage mobile banking achievement and found that mobile banking realization has an enormous impact on consumers’ frame of mind, which impacts the behavioral intention of a user. Consequently, it is hypothesized that:

H₉: “Awareness has a significant impact on users’ intention to adopt Mobile Banking services”.

The underneath referred to in Figure (1), depicts this examination’s conceptual model to the extent the previous composing’s suggestion. It epitomizes the components that impact as far as mobile banking is concerned.



ETHODOLOGY

Research Design

For this study, a quantitative research design was used. Besides, a structured questionnaire was also used. The responses were accumulated from two Northern states (Punjab & Haryana), and the union territory of J&K. Purposive sampling method was adopted, and the respondents were reached through emails. Respondents were first illuminated about this investigation’s purpose and were inquired whether they are active users of mobile banking or not. Questionnaires were distributed/ emailed to those customers only who had some involvement with mobile banking.

Questionnaire Design

For the development of the questionnaire for this study, items were adopted from the researches carried by diverse researchers representing nine independent factors (Boonsiritomachai & Pitchayadejanant, 2017, Davis et al., 1989, Dineshwar & Steven, 2013, Featherman & Pavlov, 2003, Gefen et al., 2003) Gupta & Arora, 2017, Kim et al., 2009, Makanyeza, 2017, Olivera et al., 2014, Venkatesh et al., 2003; 2012 & Zhou et al., 2010) along with one dependent variable (Kim et al., 2009; Makanyeza, 2017). Initially, the endogenous and exogenous factors were computed with the help of 47 items. After running the factor analysis, five items were

removed since their values did not load on the expected component for this sample. The questionnaire was also evaluated by two professors having expertise in marketing, and their opinion was sought (Tull & Hawkins, 1994) and by some scholars. On their suggestions, some of the questions were modified to suit the present examination structure. Moreover, in the development of the instrument, a five-point Likert scale was utilized.

Data

Based on the number of items used in the questionnaire (each item requires respondents extending at least five respondents, and the most extreme ten respondents (Kline, 2005), a sample size of 420 was determined. The research instrument contained 42 items, so the itemized sample worked out to be 420 (42 items * 10). However, considering the likelihood of any nonresponse, unengaged responses, and outliers, the questionnaire was disseminated to 584 respondents but only 429 questionnaires were returned, indicating a response rate of 73.45 percent. The elevated retort rate can be credited to the fact that mobile banking has stretched out a helping hand to customers in catering to different needs. Out of 429 questionnaires honored, only 403 questionnaires were deemed to be fit for analysis.



DATA ANALYSIS

The demographic distinctiveness of the 403 respondents was scrutinized. Out of the 403 respondents, 67.24 percent constituted the male population, and 33.49 percent were females. (3.47) percent belonged to the age gathering of up to 20, (22.33) in the age gathering of 20-28, (45.65) in the age gathering of 28-36, (21.83) in the age gathering of 36-44, and (6.69) in the age gathering of 44 or above. The greater part of respondents were employees (49.57), followed by businessmen (20.84), students (15.63), professionals (12.15), and others (1.4).

Scale Properties

Reliability

The reliability of the instrument was assessed using the overall Cronbach Alpha. The Cronbach Alpha estimation determined through SPSS 20.0 was 0.792 (See Table 1), which is above the acceptable level of 0.70 in social sciences research (Hair, Anderson, Tatham & Black, 1998), signifying that reactions are profoundly predictable and dependable.

Table 1. Results of Exploratory Factor Analysis

Factor	Statement	Item	Loadings	Alpha	Communalities	V.E	KMO
Perceived Usefulness	My banking transactions have become quicker by using Mobile Banking.	1(PU1)	.689		.706		
	Using Mobile Banking helps me to accomplish tasks more quickly.	2(PU2)	.652	.817	.911	18.245	.712
	Mobile Banking enhances the efficiency of my banking activities.	3(PU3)	.763		.730		
	I find Mobile Banking useful in my daily life.	4(PU4)	.773		.667		
Perceived Ease of Use	Mobile Banking is easy to use.	5(PEU1)	.722		.827		
	It is easy for me to become skillful in Mobile Banking.	6(PEU2)	.783		.820		
	I find Mobile Banking comfortable to use every time and everywhere.	7(PEU3)	.739	.709	.878	16.286	.712
	It is easy to register for Mobile Banking.	8(PEU4)	.811		.853		
Social	My friends and family value the use of Mobile Banking.	9(SI1)	.541		.629		
	Most people around me use Mobile Banking.	10(SI2)	.616	.887	.695	19.288	.712
	I find mobile banking trendy.	11(SI3)	.646		.791		
	Using Mobile Banking is a status symbol in my environment.	12(SI4)	.831		.867		
	Media Publicity of Mobile Banking has influenced me to a greater extent.	13(SI5)	.770		.826		

Facilitating Conditions	There is network coverage at all times	14(FC1)	.559		.914		
	There is substantial support from the banks through manuals, demonstrations, etc.	15(FC2)	.865		.886		
	Clear instructions are provided by the bank to use Mobile Banking effectively.	16(FC3)	.742	.729	.782	23.873	.712
	The help desk is available to assist in case of any difficulty.	17(FC4)	.835		.793		
	Mobile banking apps are regularly updated.	18(FC5)	.811		.886		
Relative	Mobile banking gives me greater control over my finances than conventional forms of banking.	19(RA1)	.713		.766		
	Using Mobile banking takes fewer efforts and saves time.	20(RA2)	.633	.833	.883	21.810	.712
	Mobile banking offers more privacy compared to other banking channels.	21(RA4)	.771		.866		
	Mobile banking gives me wider options	22(RA5)	.679		.846		
Trust	I believe that Mobile banking is trustworthy.	23(TR1)	.866		.849		
	I feel assured that legal and technological structures adequately protect me from problems with Mobile banking.	24(TR2)	.816	.801	.714	20.134	.712
	Mobile banking was created to help the client.	25(TR3)	.780		.832		
	Mobile banking seems to be secure.	26(TR4)	.846		.766		
	Mobile banking provides me desired results with consistency.	27(TR5)	.802		.787		
Perceived Self-efficacy	I easily understand how Mobile banking works.	28(PSE)	.866		.934		
	I have the confidence to use Mobile banking without taking help from others.	29(PSE2)	.904	.765	.950	14.791	.712
	I feel comfortable using Mobile banking on my own.	30(PSE3)	.880		.942		
Perceived Risk	Using Mobile banking services subjects my banking account to financial fraud.	31(PR1)	.809		.877		
	Using Mobile banking puts my privacy at risk	32(PR2)	.781		.831		
	I think Mobile banking is riskier than other banking options.	33(PR3)	.688	.827	.788	19.255	.712
	Mobile banking doesn't perform well and makes issues with my financial balance.	34(PR4)	.761		.868		

Awareness	Transactions are not appropriately executed by utilizing Mobile banking services.	35(PR5)	.830		.813		
	I am aware of the benefits of Mobile banking.	36(AW1)	.854		.854		
	A lot of information is available about Mobile banking.	37(AW2)	.699		.792		
	Well-ordered help is accessible for utilizing Mobile banking.	38(AW3)	.743	.697	.755	18.319	.712
	I am particularly mindful of the rules related to utilizing Mobile banking.	39(AW4)	.812		.879		
Behavioral Intention	I intend to use Mobile banking frequently in the future.	40(INT1)	.814		.889		
	I have the intention of managing my accounts using Mobile banking.	41(INT2)	.888	.873	.919	15.015	.712
	I will prefer to use Mobile banking for my banking needs.	42(INT3)	.759		.761		

Note: Own calculation of Author



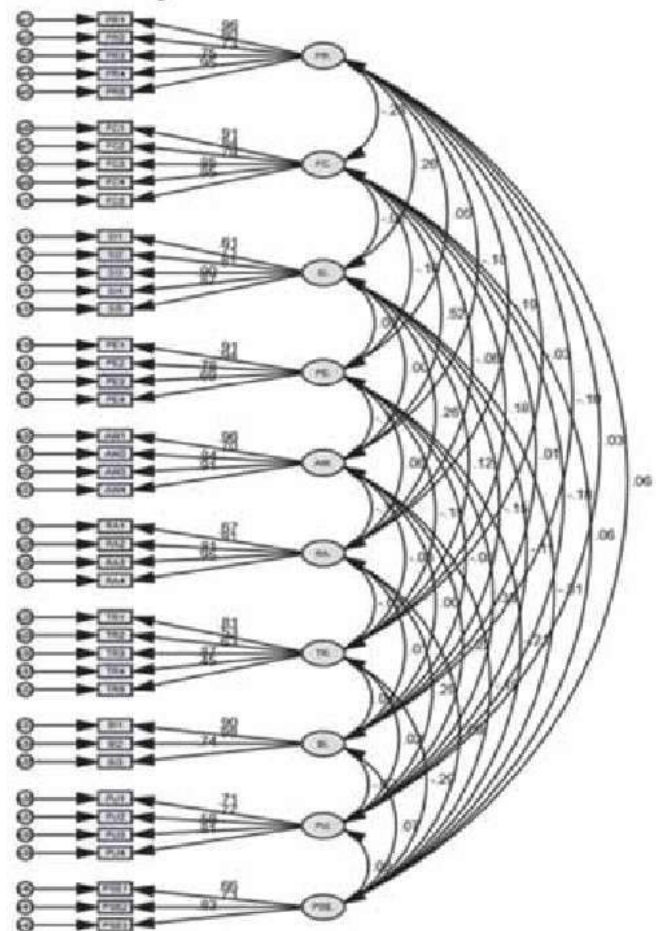
ANALYSIS & RESULTS

The data analysis was done at three stages: First, the study constructs were extracted through EFA; second, confirmatory factor analysis was conducted to check whether the dimensions explored through EFA analysis offered a good fit to the data of the study; lastly, the hypothesized relationships were tested through a structural equation modeling (SEM) procedure.

Exploratory Factor Analysis

Using SPSS 20.0, the data collected was examined. In order to explore the fundamental data structure, “Exploratory Factor Analysis” was performed (Hair, Black, Babin, Anderson & Tatham, 2006; Parasuraman, Zeithaml & Berry, 1988) and to ensure the dimensionality, exploratory factor analysis was run separately for each construct initially. “Principal Component Analysis” with “Varimax rotation and Kaiser Normalization” (Nunnally, 1978) was used to demonstrate the structure of factors and characterize the items according to their respective dimensions. Responses obtained for the items which were worded negatively were reverse coded using the “transform compute variables” option in SPSS. The value of 0.50 is considered as an acknowledgment level for Factor loading (Hair et al., 2006), which was used as a cutoff score for the present study. Using “Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy”, sample sufficiency was measured which shows whether there are enough correlations in the data set to carry out EFA or not and the KMO for the data set was notably high (0.829), which is above the acceptable level of 0.50. The value for Bartlett’s test of Sphericity was recorded 2813.533 at .000 level of significance with degrees of freedom 861, inferring that variables are related to each other. The questionnaire included 42 items representing independent & dependent variables and EFA was run with Varimax rotation

Figure 2: Measurement Model



Note 1: Note*: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE-Perceived Self Efficacy, B.I.- Behavioral Intention.

on these items. The criterion to select the items for the main study was laid down (Hair, Celsi, Ortinau & Bush, 2008); only those items with factor loading greater than or equal to 0.50 and Eigenvalue greater than 1 were selected.

Measurement Model

Confirmatory Factor Analysis was utilized to assure the passable level of model fitness as well as construct validity, reliability and the outcomes specified an acceptable data fit for the model. The results showed that: Chi-square =1723.433, with degree of freedom at probability level = .000 ($P < 0.05$), GFI = 842, AGFI = 0.867, NFI = 0.851 (Joreskog & Sorborm, 1989),

After confirmatory factor analysis, we tested the relationship between the study variables using structural equation modeling (SEM). The parameters of the model exhibited the best fit between the theoretical model and the data of the study.

Before proceeding for final analysis, we assessed the discriminant validity using Fornell & Larcker criteria (Fornell & Larcker, 1981). Our results meet the criteria in a sense that the square root of average variance extracted for all the constructs is greater than the corresponding row and column correlation values.

Table 2. Fornell and Larcker Criteria

	CR	AVE	MS V	Max R(H)	P.U.	F.C.	P.R.	S.I.	R.A.	A.W.	PEU.	B.I.	T.R.	PSE.
P.U.	0.912	0.779	0.026	0.964	0.882									
F.C.	0.917	0.689	0.068	0.977	-0.145	0.830								
P.R.	0.927	0.719	0.270	0.982	0.016	0.119	0.848							
S.I.	0.889	0.620	0.151	0.985	-0.160	0.239	-0.025	0.788						
R.A.	0.906	0.710	0.099	0.988	0.009	0.028	-0.063	0.261	0.843					
A.W.	0.917	0.737	0.270	0.990	0.006	0.089	0.520	0.004	-0.102	0.858				
PEU.	0.903	0.702	0.072	0.992	-0.049	-0.031	-0.098	0.089	0.068	-0.157	0.838			
B.I.	0.879	0.655	0.099	0.995	0.070	0.149	-0.227	-0.126	0.314	-0.142	0.269	0.810		
T.R.	0.799	0.614	0.068	0.995	0.034	0.260	0.180	0.127	-0.088	-0.020	-0.152	0.090	0.677	
PSE.	0.849	0.671	0.151	0.995	0.067	-0.173	-0.110	-0.388	0.051	-0.252	-0.105	0.072	-0.238	0.819

Note1: Values in the diagonal of the above matrix are the square root of the AVE.

Note2: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A.- Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

Note3: Own Calculation of Author

CFI = 0.898 (Hu & Bentler, 1999), RMSEA = 0.051, and RMR = 0.032 (Browne and Cudeck, 1993). In addition, validity and composite reliability (C.R.) were also assessed. The values of C.R. for all constructs are above the minimum acceptance level of 0.60 (Bagozzi & Yi, 1988) (See Table 2). The estimations of composite reliability for all develops are over the base acknowledgment level of 0.60 which thereby signifies the C.R. of the scale. In order to determine the validity of the scale, the Values of AVE (average variance extracted) were used. All the estimations of AVE were over the base limit level of 0.50 which affirms convergent validity for the constructs (Fornell & Larcker, 1981) (Refer Table 2).

Test of Hypotheses

The hypotheses testing was done through structural equation modeling. The structural model test (See Table3) exhibited a good fit (Carmines & McIver, 1981; Hu & Bentler, 1999). Also the goodness and badness measures of fit indicated a good fit. The TLI and CFI estimates were greater than the threshold of 0.95 (See Table3) signifying a good fit (Bentler, 1990; Bentler & Bonnet, 1980). Other indices like RMSEA and RMR values 0.051 and 0.042, respectively, also supported the fit between the hypothesized model and the data of the study (Byrne, 2013; Fan & Sivo, 2005). Thus, the structural model reveals desirable psychometric properties.

Table 3: Results of structural model test

Model	CMIN/df	P	RMSEA	SRMR	TLI	CFI
Overall Structural Model	2.57	.000	0.052	0.043	0.971	0.997

Note: RMSEA - Root mean square of approximation; SRMR - standardized root mean residual; TLI - Tucker - Lewis index; CFI - comparative fit index. $P < 0.001$

The results exhibited support for all the hypotheses (See Table 4).

Table 3: Results of structural model test

Hypothesized path	Unstandardized parameter estimate	Standardized parameter estimate	t-value	Sig.
FC. → BI.	0.166	0.197	7.700	p < 0.001
PR. → BI.	-0.133	-0.256	-1.974	p < 0.001
SI. → BI.	-0.202	-0.275	-1.959	p < 0.001
RA. → BI.	0.233	0.339	5.583	p < 0.001
AW. → BI.	0.022	0.051	6.102	p < 0.001
PEU. → BI.	0.129	0.277	3.565	p < 0.001
TR. → BI.	0.151	0.181	2.456	p < 0.001
PU. → BI.	0.035	0.056	1.894	p < 0.001
PSE. → BI.	0.033	0.032	1.112	p < 0.001

Note 1: ***p < .001

Note 2: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

The structural model revealed significant (p < 0.001) and positive (β = 0.197) impact of facilitating conditions on behavioral intention, relative advantage on behavioral intention (p < 0.001, β = 0.339), awareness on behavioral intention (p < 0.001, β = 0.051), perceived ease of use on behavioral intention (p < 0.001, β = 0.277), trust on behavioral intention (p < 0.001, β = 0.181), perceived usefulness on behavioral intention (p < 0.001, β = 0.056) and perceived self-efficacy on behavioral intention (p < 0.001, β = 0.032). Further, the results revealed significant (p < 0.001) and negative (β = -0.256) impact of perceived risk on behavioral intention and social influence on behavioral intention (p < 0.001, β = -0.275). Thus, all the hypotheses of the study are supported (See Table 4 and Figure 3).

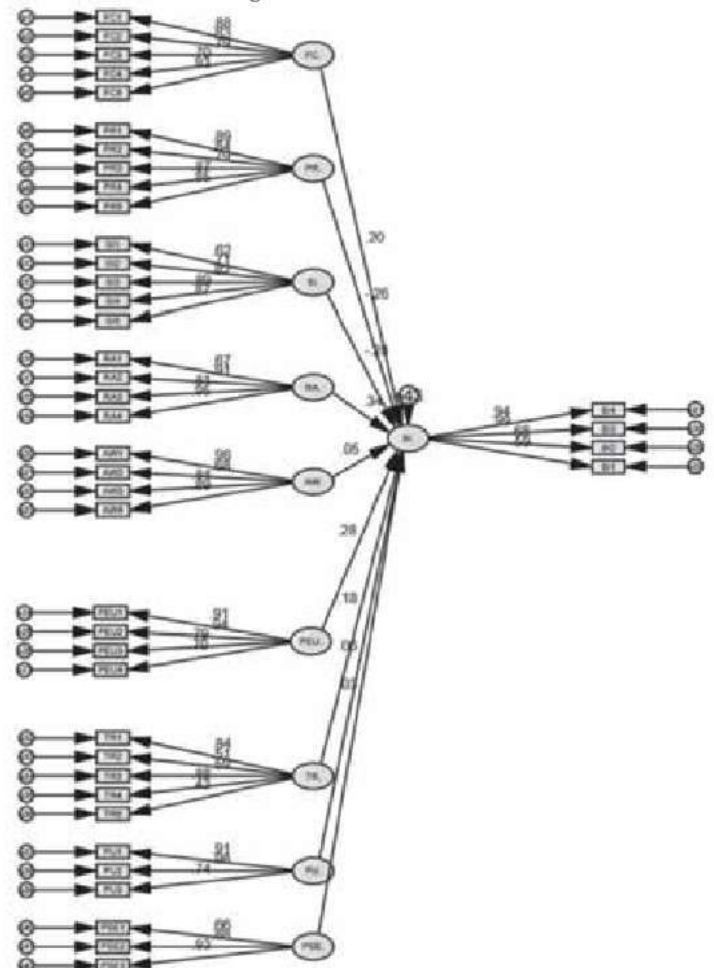


DISCUSSION

A number of canny outcomes can be abridged from every hypothesis tested in this study. In the proposed model, nine “independent variables” and one “Dependent variable” were used to test the proposed hypotheses relationship. The subsequent section presents a comprehensive argument on these outcomes.

The study's findings exhibit a significant positive relationship between PU. and users' intention to adopt mobile banking. In other words, users seem to be increasingly motivated to acknowledge when they perceive this advancement to be helpful. Perceived usefulness significantly contributes in explaining an individual's intention to adopt m-banking (Yen & Wu, 2016). As such higher the users perceive mobile banking as a proper banking channel, the higher will be their intention to use it . Among the experiences that substantiate the comparative findings include Alalwan et al., 2015; Hanafizadeh et al., 2014; Ho et al., 2020; Malaquias & Silva, 2020; Mortimer et al., 2015; Shankar & Datta 2018; Thakur & Srivastava, 2014.

Figure 3: Structural Model



Note*: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

Second, the present study finding affirms that “Perceived Ease of use” has a significant positive impact on the users' intention to adopt mobile banking. It infers that users seem to be increasingly driven to acknowledge m-banking if they recognize that such innovation's utilization was not troublesome and required less exertion. This finding can also be ascribed to the truth that a person adopts mobile banking when he finds it convenient in contrast with other customary techniques of performing fiscal exchanges (Shankar & Datta, 2018). The fallout of the present study are in sync with previous findings of Deb & Lomo-David, 2014; Malaquias & Silava, 2020; Shankar & Datta, 2018; Tam & Oliveira, 2017; Thakur & Srivastava, 2012; Zhou et al., 2010 yet negates with the findings of some earlier experiences (Al-jabri, 2015; Makanyeza, 2017; Koeing- Lewis et al., 2010).

Third, although Social Influence was proposed as a positive considerable forecaster of intention in the preceding literature (Afshan & Sharif, 2015; Oliveira et al., 2016; Warsame), the present outcome uncovers that Social influence poses a negative but statistically significant impact on adoption intention of the users. This fact can be ascribed to the fact that mobile banking users rely more on their possess opinions and convictions because users remain conservative due to the psychological and social risks arising from the social interplay since their valuable money is at stake. Besides, the users' do not depend extraordinarily on the referent opinions and know-how of the peer group with m-banking. One more reason could be that diverse sections of the society have distinctive feelings regarding Mobile banking (for example, one segment may see just innovative factors enough for accepting versatile banking while others won't). However, the earlier literature exhibits that “social influence” has no significant/negative impact on the users' adoption intention thereby, contradicts the current finding Jamshidi et al., 2018; Shankar & Datta, 2018).

Fourth, it was also found that Facilitating Conditions positively and significantly impact the users' intention to adopt mobile banking. It surmises that users will adopt mobile banking when they perceive that the bank possesses enough help administrations and assets. As such a user's impression of the support services and assets that a bank possesses are the critical elements for acknowledging this innovation. The previous findings validate this results in the literature (Afshan & Sharif, 2015; Ho et al., 2020; Oliveira et al., 2014; Shambare, 2013; Thusi & Maduku, 2020; Zhou et al., 2010). However, in contradiction to the findings of the present, the studies of Makanyeza, (2017), Deb & Lomo-David, (2014), Farah et al., (2018) and Thakur and Srivastava, (2012) have uncovered that Facilitating Conditions do not significantly impact the users mobile banking adoption intention.

Fifth, present findings affirm that Relative Advantage has a positive and significant impact on the users' intention to adopt mobile banking, suggesting that users will adopt mobile banking when they perceive something distinctive from traditional performing transactions. The possible explanation of this finding can be ascribed to the fact that users' view offerings of the m-banking progressively useful compared to the standard methods of performing financial exchanges. Users who have progressively positive convictions about

mobile banking's relative advantage form an extra favorable form of mind towards continuous usage of mobile banking (Lin, 2011). This outcome is in line with numerous past investigations supporting the positive assessment of relative advantage (Al-Jabri & Sohail, 2012; Cheah et al., 2011; Lin, 2011; Liu & Li, 2010; Makanyeza, 2017). However, the findings of the study of Cruz et al., (2010) are not supported in terms of the current results.

Sixth, trust also stands among the factors that impact users' adoption intention positively and significantly. This result can be ascribed to the verity that users trust in the services being rendered by the banks since a number of measures have been undertaken by the banks to safeguard the money as well as the privacy of the users'. It follows the suit that users' who view Mobile Banking embedded with all the quintessential protocols are more likely to grasp it while the others who don't aren't expected to receive the advancement. Better the level of trust among the users', higher will be their intention to adopt the Mobile Banking and same has been acknowledged by various past studies (Alalwan et al., 2017; Gu et al., 2009; Hanafizadeh et al., 2012; Jamshidi, 2018; Malaquias & Silva, 2020; Shankar & Datta, 2018; Zhou, 2011)..

Seventh, the study's finding demonstrates that Perceived Self-Efficacy also significantly impacts the users' adoption intention of m-banking. This finding could be interpreted as an impression of the inclination that the m-banking users' are considerably embedded with the adequate skills and essential information required for handling this technology. The finding is in accordance with the previous studies (Gu et al., 2009; Ho et al., 2020; Makanyeza, 2017; Shankar & Datta, 2018).

Eighth, the findings exhibit that “Perceived Risk” has a negative but significant impact on users' intention to acknowledge mobile banking, which is in accordance with the results of the past investigations of Al-Jabri & Sohail, (2012) Koenig-Lewis et al., (2010), Makanyeza, (2017), Malaquias & Hwang, (2016) and Priya et al., (2018). This outcome can be accredited to the actuality that users are increasingly worried and fear losing their money when performing exchanges with mobile banking. Various electronic money-related violations have been accounted for by the mass media over the last three years. Additionally, they feel that their privacy is dependably in question while utilizing mobile banking. Hence, the more users perceive the risk, the less they intend to adopt or use mobile banking continuously.



CONCLUSION & IMPLICATIONS FOR RESEARCH AND PRACTICE

The equanimity of mobile banking adoption is on the upward push after the nation experienced the wave of demonetization. The central government and the banking institutions since then have been encouraging more and more cashless transactions. As a result of which new online platforms are on the rise. In view that India being an emerging capabilities marketplace for M-banking, this investigation presents a comprehension of the user-driven variables influencing the adoption intention. The present study has attempted to test the relation of various variables empirically. Using Structural equation modeling, all the hypothesized relationships were endorsed. The results

confirmed all the hypothesized relationships. The substantial impact on users' intention to acknowledge mobile banking was experienced from "perceived usefulness, perceived ease of use, social influence, facilitating conditions, relative advantage, perceived self-efficacy, trust, perceived risk, and awareness."

From a theoretical viewpoint, this investigation has made some imperative offerings by identifying the attributes of mobile banking intention in a developing market. The contribution of this research is multifold. 1st for researchers, the proposed model stretches a comprehensive methodology since it has incorporated builds of well-known theories. 2nd this examination's outcomes will offer a course to the banking institutions regarding user needs. 3rd the current model adds to the existing literature on technology adoption from an emerging market perspective. 4th this study will persuade and prompt the banks to take critical consideration while implementing mobile banking, particularly in the northern part of India. 5th applicability of the findings may be generally stretched to other technological sectors. 6th the outcomes of this investigation provide satisfactory proof to the banks to patch up their rehearses to upgrade mobile banking's general incursion.

From the administrative point of view, this study's outcome holds several ramifications for the upliftment of mobile banking services. The study's findings uncovered a significant positive relationship between P.U. and intention to adopt mobile banking among the users, which indicates that users will adopt this service when they perceive this headway to be helpful. For this reason, the banks should come up with some ingenious strategies that may build up a conviction among the users that this new framework is more valuable than the customary payment procedure. Second, PEU was found to significantly impact the users' intention to adopt mobile banking, which construes that users will acknowledge mobile banking only when they find it easy in terms of usage. For this rationale, the banks should have to think about the design of mobile banking apps. It ought to be developed according to the needs of the users and should be user-friendly. Third, it was also found that Facilitating Conditions positively and significantly impact the users' intention to adopt mobile banking. Considering this result, the banks should enlarge and highlight their support services and assets so that users keep on adopting mobile banking. Besides, the banks should attempt to reach the clients at regular intervals. Fourth, the

Relative Advantage was accounted for positively and significantly impacting the users' intention to adopt mobile banking. The banks should add new highlights to the mobile banking apps so that the users feel that this progression is relatively valuable than standard ways. Fifth, trust and perceived self-efficacy also stood among the factors that impact users' adoption intention in a positive and significant manner. It implies that users who believe that mobile banking is embedded with all the vital conventions will adopt mobile banking. Trust serves as the base of mobile banking. Banks should prioritize building trust among the users by providing hassle-free and quick exchange administrations at whatever point performed regardless of the time and spot to the users with support from the bank-side in terms of customer support. Sixth, awareness likewise stood among the factors that impact users' adoption intention in a positive and significant manner. It induces that users who have an appropriate understanding of mobile banking will continuously use mobile banking. For this purpose, the banks should keep on instructing the users by way of texts or emails about the structure and advantages of mobile banking. To deal with risk and social influence, the bank should keep on attempting to enhance the security measures and safeguard the users' personal information. Moreover, they should try to spread word of mouth and increase referral promotion schemes in society.



IMITATIONS / FUTURE DIRECTIONS OF THE STUDY

The first and the main limitation of the study was that respondents were selected conveniently, which reduces the results' representativeness. Therefore, the probabilistic sampling method is recommended in future studies. Second, the proposed model included only nine independent constructs. Future investigations can mull over other imperative factors that would impact the users' adoption intention of mobile. Likewise, only the users of mobile banking were considered, while non-users' were not considered. Moreover, the current study found that "Social Influence" has an unconstructive but significant impact on the usage of m-banking. This outcome does not conform to some of the investigations that have scrutinized this factor's significance on citizens worldwide' behavior. As such, investigators are aggravated to revise the indispensable role of "Social Influence" and the last being that the findings drawn from this investigation are based on cross-sectional data. Future studies should implement longitudinal studies.

REFERENCES

- I. Afshan, S., & Sharif, A. (2015). Acceptance of mobile banking framework in Pakistan. *Telematics and Informatics*, 33(2), 370–387. Doi.org/10.1016/j.tele.2015.09.005
- ii. Akturan, U., & Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence and Planning*, 30(4), 444–459.
- iii. Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2015). Consumer adoption of mobile banking in Jordan: Examining the role of usefulness, ease of use, perceived risk and self-efficacy. Doi:10.1108/IJOPM-03-2015-0139.
- iv. Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Algharabat, R. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk. *Journal of Retailing and Consumer Services*, 40, 125–138. Doi.org/10.1016/j.jretconser.2017.08.026.
- v. Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99–110. Doi: 0.1016/j.ijinfomgt.2017.01.002.
- vi. Al-Jabri, I. M. (2015). The intention to use mobile banking: Further evidence from Saudi Arabia. *South African Journal of Business Management*, 46(1), 23–34.
- vii. Al-Jabri, I. M., & Sohail, M. S. (2012). Mobile banking adoption: Application of diffusion of innovation theory. *Journal of Electronic Commerce Research*, 13(4), 379–391. DOI:10.1108/02634501211231928.
- viii. Bagozzi, R. P., and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- ix. Bailey, A. A., Pentina, I., Mishra, A. S., & Ben Mimoun, M. S. (2017). Mobile payments adoption by U.S. consumers: an extended TAM. *International Journal of Retail and Distribution Management*, 45(6), 626–640. DOI:10.1108/IJRDM-08-2016-0144.
- x. Bentler, P. M. (1990). "Comparative fit indexes in structural models", *Psychological Bulletin*, Vol. 107 No. 2, pp. 238–246.
- xi. Bentler, P. M. and Bonnet, D. C. (1980). "Significance tests and goodness of fit in the analysis of covariance structures", *Psychological Bulletin*, Vol. 88 No. 3, pp. 588–606
- xii. Bhattacharjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans*, 30(4), 411–420.
- xiii. Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit In: Bollen KA, Long JS, editors. *Testing structural equation models*. Beverly Hills, CA: Sage, 111–135.
- xiv. Byrne, B. M. (2013). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*, Routledge, New York, NY.
- xv. Carmines, E. G. and McIver, J. P. (1981), "Analyzing models with unobserved variables: analysis of covariance structures", in Bohrnstedt, G. W. and Borgatta, E. F. (Eds), *Social Measurement: Current Issues*, Sage, Beverly Hills, CA, pp. 65–115.
- xvi. Chakiso, C. B. (2019). Factors affecting attitudes towards adoption of mobile banking: Users and non-users perspectives. *Emerging Markets Journal*, 9(1), 418–430.
- xvii. Chan, S. C. & Lu, M. T. (2004). Understanding internet banking adoption and usage behavior: a Hong Kong perspective. *Journal of Global Information Management*, 12(3), 21–43.
- xviii. Changchit, C., Lonkani, R., & Sampet, J. (2017). Mobile banking: Exploring determinants of its adoption. *Journal of Organizational Computing and Electronic Commerce*, 27(3), 239–261.
- xix. Chawla, D., & Joshi, H. (2017). Consumer perspectives about mobile banking adoption in India – a cluster analysis. *International Journal of Bank Marketing*, 35(4), 616–636. DOI:10.1108/IJBM-03-2016-0037.
- xx. Cheah, C. M., Teo, A. C., Sim, J. J., Oon, K. H., & Tan, B. I. (2011). Factors affecting Malaysian mobile banking adoption: An empirical analysis. *International Journal of Network and Mobile Technologies*, 2(3), 149–160.
- xxi. Chen, C. S. (2013). Perceived risk, usage frequency of mobile banking services. *Managing Service Quality*, 23(5), 410–436. DOI:10.1108/MSQ-10-2012-0137.
- xxii. Cruz, P., Neto, L. B. F., Muñoz-Gallego, P., & Laukkanen, T. (2010). Mobile banking rollout in emerging markets: Evidence from Brazil. *International Journal of Bank Marketing*, 28(5), 342–371.
- xxiii. Daud, N. M., Ezalin, N., Kassim, M., Seri, W., Wan, R., Said, M., & Noor, M. M. (2011). Determining Critical Success Factors of Mobile Banking Adoption in Malaysia. *Australian Journal of Basic and Applied Sciences*, 5(9), 252–265.
- xxiv. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A comparison of Two Theoretical Models. *Management Science*, 35(8), 982–1003. DOI:10.1287/mnsc.35.8.982.
- xxv. Deb, M., & Lomo-David, E. (2014). An empirical examination of customers' adoption of m-banking in India. *Marketing Intelligence and Planning*, 32(4), 475–494. Doi.org/10.1108/MIP-07-2013-0119.
- xxvi. Dineshwar, R., & Steven, M. (2013). An investigation on mobile banking adoption and usage: A case study of Mauritius. In *Proceedings of 3rd Asia-Pacific Business Research Conference* (3) 1–21.
- xxvii. Fan, X. and Sivo, S. A. (2005), "Sensitivity of fit indexes to misspecified structural or measurement model components: rationale of two-index strategy revisited", *Structural Equation Modeling*, Vol. 12 No. 3, pp. 343–367.
- xxviii. Faqih, K. M. S., & Jaradat, M. I. R. M. (2015). Assessing the moderating effect of gender differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective. *Journal of Retailing and Consumer Services*, 22, 37–52. DOI:10.1016/j.jretconser.2014.09.006.
- xxix. *International Journal of Human-Computer Studies*, 59(4) 451–74.
- xxx. Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(2), 39–50.
- xxxi. Fornell, C. and Larcker, D. F. (1981), "Structural equation models with unobservable variables and measurement error: algebra and statistics", *Journal of Marketing Research*, Vol. 18 No. 3, pp. 382–388.
- xxxii. Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An interacted model. *MIS Quarterly*, 27(1), 51–90.

- xxxiii. Geo, R., Shaikh, A.J., & Karjaluo, H. (2017). Mobile banking services adoption in Pakistan: are there gender differences? *The Roles of Employee Job Satisfaction and Organizational Commitment in the Internal Marketing-Employee Bank Identification Relationship*. DOI:10.1108/MBE-09-2016-0047.
- xxxiv. Global System for Mobile Communications, the Mobile Economy 2017 (2017). Number of Global Mobile Subscribers To Surpass Five Billion This Year, Finds New GSMA Study. Retrieved from <https://www.gsma.com/newsroom/press-release/number-of-global-mobile-subscribers-to-surpass-five-billion-this-year/>.
- xxxv. Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605–11616. Doi.org/10.1016/j.eswa.2009.03.024.
- xxxvi. Hair, J. F., Celsi, M., Ortinau, D. J., & Bush, R. P. (2008). *Essentials of marketing research*. New York, NY: McGraw-Hill/Higher Education.
- xxxvii. Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. (1998), *Multivariate Data Analysis*, 5th ed., Prentice-Hall, Englewood Cliffs, NJ.
- xxxviii. Hair, J.F., Black, W., Babin, B., Anderson, R. & Tatham, R. (2006), *Multivariate Data Analysis: A Global Perspective*, 7th ed., Pearson Hall, NJ.
- xxxix. Hanafizadeh, P., Behboudi, M., Abedini Koshksaray, A., & Jalilvand Shirkhani Tabar, M. (2012). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, 31(1), 62–78. Doi.org/10.1016/j.tele.2012.11.001.
- xl. Hanafizadeh, P., Keating, B. W., &Khedmatgozar, H. R. (2014). A systematic review of Internet banking adoption. *Telematics and informatics*, 31(3), 492-510.
- xli. Hassan, J., & Nika, F.A. (2018). Factors Influencing Customer Intention towards the Adoption of Mobile Banking: A Study of M Pay Users in Kashmir Division. *International Journal of Enhanced Research in Management & Computer Applications*. 7(3), 2319-7471.
- xlii. Hassan, J., & Nika, F.A. (2021). Exploring the Determinants affecting the students' engagement with online learning: A Preliminary Investigation. *Recent Advances in Technology Acceptance Models and Theories*. DOI: 10.1007/978-3-030-64987-6
- xliii. Ho, J. C., Wu, C. G., Lee, C. S., & Pham, T. T. T. (2020). Factors affecting the behavioral intention to adopt mobile banking: An international comparison. *Technology in Society*, 63, 101360.
- xliv. Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- xlv. Jamshidi, D., Keshavarz, Y., Kazemi, F., & Mohammadian, M. (2018). Mobile banking behavior and flow experience: An integration of utilitarian features, hedonic features and trust. *International Journal of Social Economics*, 45(1), 57–81. Doi.org/10.1108/IJSE-10-2016-0283.
- xlvi. Joreskog, K. G., & Sorborm, D. (1989). LISREL-7 user's reference guide Mooresville: Scientific Software', available at: nt.org/pubs.Proceedings/confproceedingsdetail.cfm.
- xlvii. Khosrow-Pour, M. (Ed.). (2017). *Handbook of research on technology adoption, social policy, and global integration*. IGI Global.
- xlviii. Kim, G., Shin, B., & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19(3), 283-311.
- xlviii. Kim, S., & Baek, T. H. (2017). Examining the Antecedents and Consequences of Mobile App Engagement. *Telematics and Informatics*, (October). DOI:10.1016/j.tele.2017.10.008.
- xlix. Kline, T. J. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage Publications.
- i. Koenig-Lewis, N., Palmer, A., & Moll, A. (2010). Predicting young consumers' take up of mobile banking services. *International Journal of Bank Marketing*, 28(5), 410–432. Doi.org/10.1108/02652321011064917.
- ii. Liébana-Cabanillas, F., Japutra, A., Molinillo, S., Singh, N., & Sinha, N. (2020). Assessment of mobile technology use in the emerging market: Analyzing intention to use m-payment services in India. *Telecommunications Policy*, 44(9), 102009.
- iii. Lin, H. F. (2011). An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust. *International Journal of Information Management*, 31(3), 252–260. Doi.org/10.1016/j.ijinfomgt.2010.07.006.
- iiii. Makanyeza. (2017). Determinants of consumers' intention to adopt mobile banking services in Zimbabwe. *International Journal of Bank Marketing*, 12(7), 1–32. Doi.org/10.1108/02652323199400002.
- liv. Malaquias, F., Malaquias, R., & Hwang, Y. (2018). Understanding the determinants of mobile banking adoption: A longitudinal study in Brazil. *Electronic Commerce Research and Applications*, 30, 1–7. DOI:10.1016/j.elerap.2018.05.002.
- lv. Malaquias, R. E., & Silva, A. F. (2020). Understanding the use of mobile banking in rural areas of Brazil. *Technology in Society*, 62, 101260.
- lvi. Malaquias, R.E., & Hwang, Y. (2016). An empirical study on trust in mobile banking : A developing country perspective. *Computers in Human Behavior*, 54, 453–461. DOI:10.1016/j.chb.2015.08.039.
- lvii. Mehrad, D., & Mohammadi, S. (2016). Word of Mouth impact on the adoption of mobile banking in Iran. *Telematics and Informatics*, 34(7), 1351–1363. Doi.org/10.1016/j.tele.2016.08.009.
- lviii. Mortimer, G., Neale, L., Hasan, A. F. E., & Dunphy, B. (2015). Investigating the factors influencing the adoption of m-banking: A cross cultural study. *International Journal of Bank Marketing*, 33(4), 545–570. Doi.org/10.1108/IJFM-03-2013-0017.
- lvix. Mukherjee, A., & Nath, P. (2003). A model of trust in online relationship banking. *International Journal of Bank Marketing*, 21 (1), 5-15.
- lx. Nielsen, (2012). 27 Million Smartphone Users In Urban India Says NeilsenInformate Global Insights. Retrieved from <https://www.nielsen.com/in/en/press-room/2012/smartphone-incidence.html>. Nunnally, J.C. (1978), *Psychometric Theory*, 2nd ed., McGraw-Hill, New York, NY, p. 245.
- lxi. Oliveira, T., Faria, M., Thomas, M. A., & Popovi, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(5), 689–703. Doi.org/10.1016/j.ijinfomgt.2014.06.004.
- lxii. Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61(2016), 404–414. Doi.org/10.1016/j.chb.2016.03.030.
- lxiii. Patel, K.J., & Patel, H. J. (2018). Adoption of internet banking services in Gujarat: an extension of TAM with perceived security and social influence. *International Journal of Bank Marketing*, 12(7), 1–32. DOI:10.1108/02652323199400002.
- lxiv. Picoto, W. N., & Pinto, I. (2021). Cultural impact on mobile banking use—A multi-method approach. *Journal of Business Research*, 124, 620-628.
- lxv. Pikkarainen, T., Pikkarainen, K., Karjaluo, H., & Pahnla, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224–235.

- lxvi. Priya, R., Gandhi, A. V., & Shaikh, A. (2018). Mobile banking: consumer perception towards adoption. Doi.org/10.1108/BIJ-10-2015-0093.
- lxvii. Püschel, J., Mazzon, J. A., & Hernandez, J. M. C. (2010). Mobile banking: Proposition of an integrated adoption intention framework. *International Journal of Bank Marketing*, 28(5), 389–409. Doi.org/10.1108/02652321011064908.
- lxviii. Reserve Bank of India. (2019). *List of Banks permitted to provide Mobile Banking Service in India – Position as on April 01, 2019* [Data file]. Retrieved from https://rbidocs.rbi.org.in/rdocs/Content/PDFs/2012F_LMBS.PDF.
- Lxix. Shankar, A., & Datta, B. (2018). Factors Affecting Mobile Payment Adoption Intention: An Indian Perspective. *Global Business Review*, 19(3), 72–S89. Doi.org/10.1177/0972150918757870.
- lxx. Shankar, A., & Rishi, B. (2020). Convenience matter in mobile banking adoption intention?. *Australasian Marketing Journal (AMJ)*, 28(4), 273-285.
- lxxi. Singh, N., Sinha, N., & Liébana-Cabanillas, F. J. (2020). Determining factors in the adoption and recommendation of mobile wallet services in India: Analysis of the effect of innovativeness, stress to use and social influence. *International Journal of Information Management*, 50, 191-205.
- lxxii. Skeldon, P. (2011). Growing consumer demand for mobile prompts massive investment in new multichannel platforms as retailers look to integrate everything. Retrieved 12 June 2016, from <http://www.internetretailing.net/2011/06/growing-consumer-demandfor-mobile-promptsmassive-investment-in-new-multichannel-platforms-as-retailers-look-to-integrate-everything>.
- lxxiii. Tam, C., & Oliveira, T. (2017). Literature review of mobile banking and individual performance. *International Journal of Bank Marketing*, 35(7), 1042–1065. Doi.org/10.1108/IJBM-09-2015-0143.
- lxxiv. Tan, E., & Lau, J. L. (2016). Behavioural intention to adopt mobile banking among the millennial generation. *Young Consumers*, 17 (1). DOI:10.1108/YC-07-2015-00537.
- lxxiv. Thakur, R., & Srivastava, M. (2014). Customer usage intention of mobile commerce in India: An empirical study. *Journal of Indian Business Research*, 5(1), 52–72. Doi.org/10.1108/17554191311303385.
- lxxv. Tiwari, P., Tiwari, S. K., & Gupta, A. (2021). Examining the Impact of Customers' Awareness, Risk and Trust in M-Banking Adoption. *FIIB Business Review*, 23197145211019924.
- lxxvi. Thusi, P., & Maduku, D. K. (2020). South African millennials' acceptance and use of retail mobile banking apps: An integrated perspective. *Computers in Human Behavior*, 111, 106405.
- lxxvii. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Towards a unified view. *MIS Quarterly*, 27(3), 425–478. DOI:10.2307/30036540.
- lxxviii. Warsame, M. H., & Ireri, E. M. (2018). Moderation effect on mobile microfinance services in Kenya: An extended UTAUT model. *Journal of Behavioral and Experimental Finance*. Doi.org/10.1016/j.jbef.2018.01.008.
- lxxix. Wessels, L., & Drennan, J. (2010). An investigation of consumer acceptance of M-banking. *International Journal of Bank Marketing*, 28(7), 547–568. Doi.org/10.1108/02652321011085194.
- lxxx. Yen, D. C., Wu, C. S., Cheng, F. F., & Huang, Y. W. (2010). Determinants of users' intention to adopt wireless technology: An empirical study by integrating TTF with TAM. *Computers in Human Behavior*, 26(5), 906–915. DOI:10.1016/j.chb.2010.02.005.
- lxxxi. Yen, Y. S., & Wu, F. S. (2016). Predicting the adoption of mobile financial services: The impacts of perceived mobility and personal habit. *Computers in Human Behavior*, 65, 31–42. Doi.org/10.1016/j.chb.2016.08.017.
- lxxxii. Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research*, 21(5), 527–540. Doi.org/10.1108/10662241111176353
- lxxxiii. Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behavior*, 26(4), 760–767. Doi.org/10.1016/j.chb.2010.01.013.