Exploring Consumer Adoption Of M-Commerce: A Study Based On Extended Theory Of Planned Behaviour

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ABSTRACT

Mobile Commerce (MC) empowers consumers to purchase online with one click. Increased use of MC during the pandemic has attracted the marketers' attention to how consumer attitudes and intentions are formed while consumers purchase using mobiles. This study extends the Theory of Planned Behaviour (TPB) using the Technology Acceptance Model (TAM) to understand the determinants of MC. The study uses a survey to collect the data. Variance-based Partial Least Square Structural Equational Modelling (PLS-SEM) was applied on SmartPLS software to analyse data. An adapted questionnaire was used to survey 350 consumers. The study's significant findings include that perceived ease of use and perceived risk are essential in determining consumers' attitudes towards MC. However, subjective norms play a vital role in deciding the MC adoption intention.The study's findings contribute to the current understandings of determinants of attitude towards MC and its adoption intention and are valuable for adding to the existing literature. The study found that if MC firms enhance the perceived ease of use and reduce the perceived risk of their consumers, they can build positive attitudes, and thus, marketing strategies can be based accordingly.

Keywords: Mobile commerce, Perceived Cost, Perceived Ease of Use, Perceived Risk, Subjective Norms.

1.0 INTRODUCTION

In a cluttered retail market, brands need personalisation as per customer requisites. Mobile phones provide an excellent opportunity for brands to chart out a marketing route map to increase customers to delve more into mobile shopping and personalised offerings. Business transactions carried out in any hand-held device, whether a PDA (Personal Digital Assistant) or mobile phone, come under the definition of Mobile Commerce (MC). MC is "a new e-commerce transaction conducted through mobile devices using wireless telecommunication networks and other wired e-commerce technologies" (Siau et al. 2001). Similarly, "any transaction, involving the transfer of ownership or rights to the use of goods and services, which is initiated or completed by using mobile access to computer-mediated networks with the help of an electronic device" (Tiwari et al., 2007).

According to Turban and King (2006), the main attributes of MC are ubiquity, convenience, localisation, accessibility, and personalization. These are the benefits of MC, and ubiquity means that the location does not affect the ability to conduct transactions primarily, and convenience means the ability to procure services through mobile devices. Similarly, localisation means getting location-specific services using (Global Positioning Systems) GPS technology, and accessibility means that the customer is not bound by time and location. Correspondingly, personalisation means companies can use MC to tailor information and services specific to every customer's needs. MC is not limited by time or place, and the wireless nature allows it to replace

other commerce forms, leading to it being termed "ubiquitous commerce" (Pavlou et al., 2007).

A significant increase in mobile commerce is visible in different aspects of shopping, services, and transactions under other platforms of online retailing services (Statista, 2020). MC is increasing as a stable and secure supplement to the e-commerce industry. The industry leaders opine that MC could contribute up to 70 percent of their total revenues (Deloitte, 2020). Given the rising use and access to mobile and internet penetration, the demand for MC is substantial in the local and global arena and a significant source of unprecedented growth in the retailing services industry in the coming year.

In various research studies, the majority of studies applied the Technology Adoption Model (TAM) (Shankar and Datta, 2018), Theory of Planned Behaviour (TPB) (Giovanis et al., 2019), and Unified Theory of Acceptance and Use of Technology (UTAUT I & II) (Yu, 2012; Alalwan et al., 2017) as foundation theories to explore factors affecting adoption behaviour. However, no study mentioned that different dimensions like perceived cost, personalisation, privacy, perceived trust, security, social norms and perceived behavioural control and convenience individually influence consumers' attitude towards MC. It motivated us to examine all the dimension's simultaneous effects on MC closely. The research study has developed a conceptual model, which would be an addition to the existing theory of planned behaviour. The study will significantly affect the formation of Attitude towards MC, which ultimately, with social norms & perceived behavioural control, would lead to MC adoption intention. The study's findings would benefit companies offering MC services to know what dimensions are essential to draw consumers toward this medium of commerce.

The paper is structured as follows. The following section reviews the theoretical and empirical studies related to MC adoption. After the literature review, we have included a segment on research methodology, consisting of the study's universe, population, survey approach, and data analysis. The results section presents the assessment and structural model findings and discusses the findings in the literature review

context. The following section offers the study's theoretical and managerial contributions, and the final section is on the research limitations and directions for further research.

2.0 REVIEW OF LITERATURE

The review of the literature undertaken by the researchers for offering justification to design and validate the conceptual model with the help of a structured questionnaire was primarily based on the model adopted from the existing body of knowledge using two theories, i.e. Theory of Planned Behaviour (Ajzen and Fishbein,1980) and Technology Acceptance Model (Davis et al., 1989).

2.1 Perceived Cost

MC revolution brought about drastic changes in the purchase, payments, and overall user experience, but at the core, it is another method of buying goods that costs money. Thus, the perceived cost determines the 'worth' of using a service at its crux. For MC services, perceived costs include purchase, cost of subscriptions, download cost, etc. (Islam et al., 2010; Zhang et al., 2012). Several studies have found that perceived cost plays a crucial role in MC adoption, the continuation of usage, and the tendency to recommend it to other potential consumers (Han et al., 2016; Chong et al., 2012; Shin et al., 2010). Furthermore, lower costs lead to increased consumers' shift towards MC (Khalifa and Shen, 2008).

2.2 Personalisation

MC applications continually work towards creating a well-streamlined and highly personalized consumer experience. Thanks to personalization, consumers have to spend less time navigating applications and have a tailored experience, making them more willing to share personal information (Pavlou et al., 2007). This information lets the retailer provide relevant products and contextual, optimal information when needed, thus preventing unwanted marketing pitches (Tyrväinen and Karjaluoto, 2019; Barutcu, 2008; Pura, 2005). Furthermore, several researchers have found that personalization and customization of services strongly impact customer satisfaction, adoption

of MC services, and intent to continue with its usage (Liébana-Cabanillas et al.,2017; Morosan and DeFranco, 2016).

2.3 Privacy

With personalization, ease of use, and streamlined services, comes the need for information. However, many consumers are not comfortable with giving out personal information.

Privacy refers to a customer's idea regarding sharing personal data unauthorised, getting contacted by retailers, and continually tracking activity without due permission over the internet (Chen et al., 2013). Customers expect retailers to keep information confidential and not sell it to third-party sites and companies. Several studies have concluded that privacy concerns significantly impact MC usage and adoption, and possible issues can negatively affect customer attitudes towards such services (Bailey et al., 2020; Khasawneh et al., 2018; Ozturk et al., 2017). Thus, companies should clarify their privacy policies and assure customers that they will not share their data with third-party companies. It will reduce potential loss anxiety and make the user experience much smoother (Al-Khalaf and Choe, 2020; Jayashree et al., 2010). Several studies have concluded that privacy concerns significantly impact MCusage and adoption, and possible issues can negatively affect customer attitudes towards such services (Sarkar et al., 2020; Khasawneh et al., 2018; Smith et al., 2014).

2.4 Perceived Trust

Several studies have found that consumer trust is a crucial factor and a strong predictor of usage and adoption of both MC and E-commerce, to an extent greater than what information systems observed in traditional commerce (Kalinić et al., 2021; Rodríguez-Torrico et al., 2019; Rana et al., 2019; Marriott and Williams, 2018). This trend can be attributed to the novelty of MC and thus the uncertainty that comes with it. Trust in MC is said to have two main facets: the trust in the MC retailers and perceived trust in the transaction medium. Trust believes that the supplier will not act opportunistically and keep the consumer's interest their priority (Wang et al., 2015; Tan et

al., 2011). Similarly, consumer trust plays a significant role in mobile payment (Rodríguez-Torrico et al., 2019) and mobile banking (Susanto et al., 2016). Retailers are expected to have "integrity" (the retailers should be honest and be considered credible), "predictability," "competence" (the ability of the retailer to serve and deliver according to the needs of the customer), and "benevolence" (how considerate a retailer is to the needs of the customer) (Lin and Wang, 2006).

The main selling points of MC are the perceived usefulness and ease of use, its ubiquitous natures, convenient and smooth interface, all of which lead to customer loyalty and satisfaction, building towards consumer trust (Sarkar et al., 2020). It is essential to mention that several researchers have found that the link between consumer trust and other behavioral aspects like intention to continue usage and satisfaction with the experience is inconsistent (Marinkovic et al., 2020; Groß, 2016). Thus, it is crucial to study all the factors influencing consumer trust.

2.5 Security

MC applications strive to create a streamlined framework for consumers to purchase products and services and carry out transactions effortlessly. The goal to create personalized experiences brings in the requirement for information. Customers often need to enter highly personal and sensitive information, causing security concerns (Venkatesh et al., 2012). Security is about the ethical view customers have regarding the financial processes on the internet (Matemba and Li, 2018; Sharma and Lijuan, 2014). It is about the safety of personal information given by the consumer to the retailer (Khalifa and Shen 2008). Although some researchers found the link to be inconsistent (Morosan and DeFranco, 2016; Tan et al., 2014), several researchers have found that security plays a significant factor in a consumer's intention regarding the adoption of MC technology (Liébana-Cabanillas et al., 2021; Oliveira et al.,2016; Susanto et al., 2016) and it affects their intention to continue with its purchase and usage (Rodríguez-Torrico et al., 2019). Thus, events that indicate weaknesses in security, potential breaches, leaks, invasion of privacy, and loss of

sensitive information can negatively affect MC's perception and reduce the probability of adoption (Limbu,2011).

Perceived Ease of Use

The ease of use and the convenience of apps are one of the most significant selling points of MC technology and have played an essential role in its success (Wang et al., 2015; Kim et al., 2010). In addition, it lets users spend minimal time on their phones for such processes (Bankole and Bankole, 2017; Rodríguez-Torrico et al., 2019).

According to (Davis et al., 1989), Perceived Ease of Use (PEOU) is "the degree of belief that adopting a specific technology would free them of efforts." The ubiquitous nature of mobile phones makes carrying out transactions highly convenient. It eliminates the need to go to a physical store and lets consumers use services anytime and anywhere, only limited by cellular connectivity. (Rodríguez-Torrico et al., 2019). PEOU is shown to be a robust determinant of the customers' intention to adopt MCand continue to utilise offered services (Nejad et al., 2016; Hsiao and Chang, 2016; Schierz et al., 2010)

Chong (2013) concluded that PEOU affected the continual usage of MC services but had no significant relationship with perceived cost. On the other hand, PEOU has been implicated as an essential factor in many different areas, ranging from internet banking to mobile internet (Tan et al., 2014; Zarmpou et al., 2012; Cheng et al., 2006).

2.6 Perceived Behavioural Control (PBC)

According to Pedersen (2002), Perceived Behavioural Control (PBC) is "an image of a person's constraints both internal and external on behaviour which is further reflected in the individual's intention to use the services of mobile commerce." The type of opportunities and resources consumers access significantly influences their "behavioural intention" (Ajzen,1991). A study conducted by Bandura (1977) showed people's confidence in their ability to perform activities strongly influences their behaviour. (Khalifa and Shen, 2008; Zhang et al., 2012).

2.7 Attitude

Attitude is the opinion and perception of a person towards a particular activity, which comes into tangible play when performing the said activity and can be either positive or negative. For example, if a consumer thinks that a specific activity's outcome would be positive, then the consumer is said to have a positive attitude toward it (Zhang et al., 2012, Chew, 2006). The belief that Attitude toward MC is strongly tied to the tendency of a consumer to adopt MC formed the bases of TAM (Technology Acceptance Model) and TPB (Theory of Planned Behaviour). Several studies have proved this linkage (Sarkar et al., 2020).

2.9 Subjective norms/ Social Norms:

MC has now given user's the ability to get information and procure services almost instantly. It also allows them to share this information with family and friends. The social influence on a person can be divided into force from mass media and influence from peers. Although studies discovered that mass-media influence was insignificant, peers substantially impacted users' attitudes and the intention to adopt MC services (Kim et al., 2016).

Subjective norm is thus the opinion and perception a user has that is influenced or derived from societal behaviour (Ajzen and Fishbein, 1980). Whether to execute an action or not, whether right or wrong, is decided by an individual's perception of society's beliefs. Many studies have found that subjective norm is an important factor and has a strong influence on the user's intention to adopt and utilize MC services (Marinković et al., 2020; San-Martin et al., 2016) and the process of making decisions (Chong et al., 2012; Yang et al., 2012).

Positive feedback from the peer groups encourages consumers to try new services and positively influences their confidence (Shankar and Datta, 2018; Ng, 2016;). Online transactions amplify this influence, and the tendency to refer to peers comes with perceived risk, and users tend to be sure of their decisions after asking their friends and family (Sun and Chi, 2018). Subjective/social norms have been identified as a crucial antecedent to adopting technology-based services and have been employed in studies based on the Theory of Planned Behaviour. (Yan et al.,

2012; Amin et al., 2008; Venkatesh and Davis, 2000). Among the ten most commonly used predictors that researchers used to measure a user's Behavioural intention to MC adoption, subjective norm, and perceived enjoyment was found to be the most significant (Liébana-Cabanillas et al., 2017; Zhang et al., 2012).

2.10 Adoption Intention

BI is defined as a person's intention to portray a particular behaviour, where societal norms and the person's attitude play a role (Sadi and Noordin, 2011). Research has shown that a lack of intention to make online purchases strongly influences adoption (Sarkar et al., 2020). Factors that negatively affect usage do not truly predict the actual use, whereas behavioural intention can predict correct usage significantly (Venkatesh et al., 2002). Thus, it is fair to assume that the behavioural intention towards MC correlates well with their intent to adopt the said services (Zhang et al., 2012; Agrebi & Jallais, 2015). It is a fundamental concept in models like UTAUT (Venkatesh et al., 2003; and TAM (Davis et al., 1989).

Based on the above literature review, the research model (as shown in Figure 1) postulates the effect of Perceived Cost, Perceived Ease of Use, Personalisation, Privacy and Trust, and Security (Risk) on the Attitude of MC users. It also tries to measure the effect of Attitude, Perceived Behavioural Control and Social Norms on the intention to use MC.
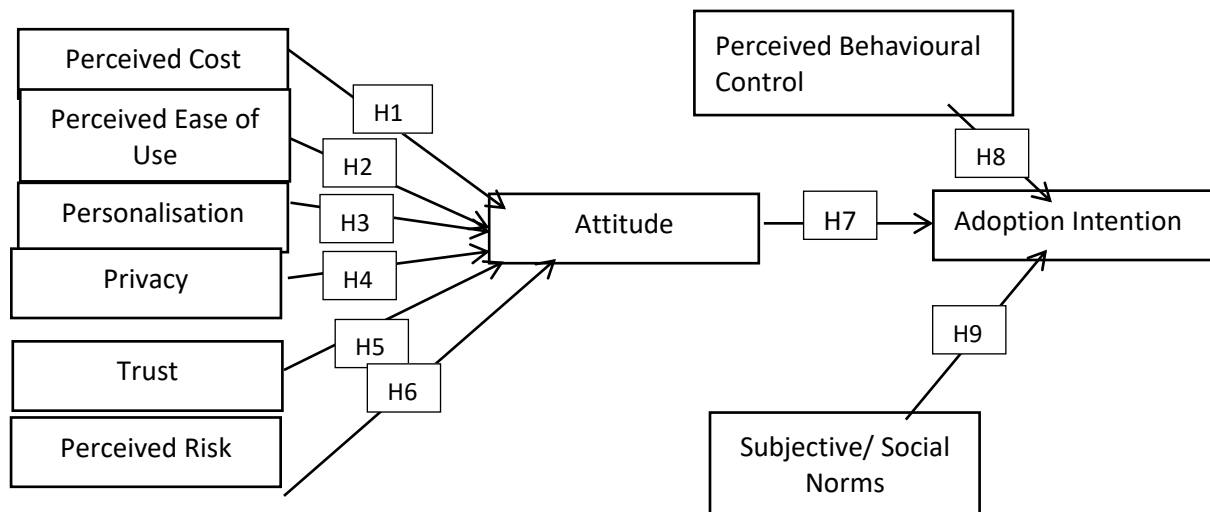

Figure 1: Research Model

Hypothesis 1: Perceived Cost has a positive effect on the Attitude of MC Users

Hypothesis 2: Perceived Ease of Use has a positive effect on the Attitude of MC Users

Hypothesis 3: Personalisation has a positive effect on the Attitude of MC Users

Hypothesis 4: Privacy has a positive effect on the Attitude of MC Users

Hypothesis 5: Perceived Trust has a positive effect on the Attitude of MC Users

Hypothesis 6: Perceived risk has a negative effect on the attitude of MC Users

Hypothesis 7: Attitude has a positive effect on the adoption intention of MC Users

Hypothesis 8: Perceived Behavioral Control has a positive effect on the intention of the consumer to adopt MC

Hypothesis 9: Subjective norm has a positive effect on the intention to adopt MC applications

3.0 MATERIALS AND METHODS

Sampling and Method of Data Collection

We have used the descriptive research design by considering the rationale of this study, the stated

objectives, the scope of research, and the coverage. The primary data was collected through a questionnaire from Gujarat state of India mobile phone users using convenience sampling. The questionnaire has been administered in various areas like local marketplaces, malls, and some residences in different cities of Gujarat to select the representative sample. Gujarat state has been chosen for the study because it has the highest number of smartphones in India (Dutta, 2018). A report by business-standard indicates that mobile traffic is growing at two times the rate of desktops. In Gujarat state, the MC segment is increasing by more than 150%, which justifies the state selection for the study. A male or female mobile phone user residing in this state above 16 years of age was considered a representative sampling unit.

Further, the study employed G*Power software to determine the minimum sample size (Faul et al., 2009). The software achieved the recommended minimum level of power of 0.80 (Cohen, 1988) and thus proposed a minimum sample size of 148. The study used a sample size of 350, which satisfies the minimum sample requirements.

Variable Measurement

A Structured non-disguised questionnaire was employed to measure the customer's attitude and their intention to engage in MC. We have used the five-point Likert scale (1=strongly disagree, 5= strongly agree) to record the responses. The details are given in Table 1.

Table 1: Sources of Variables in Questionnaires and Number of Items

Variables	Number of items	Sources
Perceived Cost	4	Islam et al. (2010)
Personalisation	3	Suleyman Barutcu (2008)
Privacy	3	Jayashree et al. (2010)
Trust	2	Tan et al. (2011);
Perceived risk	3	Pavlou et al.(2007)
Perceived Ease of Use	8	Islam et al. (2010)
Perceived Behavioral Control	8	Khalifa & Shen, (2008)
Social Norms	1	Venkatesh and Davis (2000)
Attitude	6	Chew (2006).
Adoption Intention	6	Sadi and Noordin (2011)

The study applied 'Web Power' analysis to investigate Mardia's multivariate Skewness and Kurtosis, where p-values were less than 0.05 (Cain et al., 2017; Mardia, 1970). Thus, the data lacks multivariate normality. Where the data lacks normality and has distribution issues, PLS-SEM's non-parametric technique is an appropriate method (Hair et al., 2019). Further, we checked for the Common Method of Bias

(CMB) in the study, where Harman's single factor method was employed (MacKenzie & Podsakoff, 2012). The results on a single factor in Exploratory Factor Analysis using SPSS 21.0 showed that the first factor explained 28.291per cent of the variance and was found to be less than the threshold limit of 50 per cent (Podaskoff et al. 2003). Therefore, the present study was found to be free from the aspect of Common Method Bias.

DATA ANALYSIS

Descriptive Statistics

The questionnaire administered involved two parts; the initial part comprised questions related to the respondent's demography, shown in Table 2. Among the respondents, nearly 50 percent were 31 to 50 age group, 29 percent were between 16 to 30, and the remaining 21 percent of the respondents were above 50 years. Among the respondent, 49 percent were male and 51 percent female. Eighty-five percent of respondents are married. Fifty-seven percent are nuclear families. Regarding the occupation, 39 percent are working, 27 percent are self-employed, 28 percent are students, and 6 percent are unemployed. In addition, 41 percent of the respondents have an annual income between 6 to 9 lakhs, 27 percent have less than six lakhs, 20 percent have income between 9 to 12 lakhs, and the remaining 12 percent have income above 12 lakhs.

Table 2: Descriptive statistics of the demographic characteristics of respondents (n = 350)

Measure	Level	Frequency	Percent
Age (yrs.)	16-30	102	29.1
	31-50	173	49.4
	>50	75	21.4
Gender	Male	171	48.9
	Female	179	51.1
Marital Status	Unmarried	48	13.7
	Married	298	85.1
	Single	4	1.1
Type of Family	Joint	150	42.9
	Nuclear	200	57.1
Occupation	Student	99	28.3
	Service	137	39.1
	Self-Employed	94	26.9
	Un employed	20	5.7
Annual Income (Rs.)	<6 Lakh	95	27.1
	6-9 Lakh	143	40.9
	9-12 Lakh	69	19.7
	>12 Lakh	43	12.3

Reliability and Validity of Measurement Statements

Partial Least Squares can test the convergent and discriminant validity of the scales. For this purpose, Smart PLS 2.0.M3 was used. Validation of the measuring scales was evaluated using a confirmatory factor analysis (CFA). A rule of thumb for a PLS sample size is that it should be ten times the largest structural equation or the largest measurement equation (Gefen et al., 2000; Wynne et al., 2003). In our case, the measurement model has eight paths. Therefore, our sample of 350 has sufficient power. The convergent validity of scale items was assessed using three criteria suggested by (Fornell & Larcker, 1981). All items factor loadings should be significant and exceed 0.70; composite reliabilities for each construct should exceed 0.80; average variance extracted (AVE) for each construct should exceed 0.5. Discriminant validity between constructs

was assessed using Fornell and Larcker's (1981) recommendations that the square root of AVE for each construct should exceed the correlations between that and all other constructs.

Constructs	Statements	Factor Loading	AVE	Composite Reliability	Cronbach Alpha
Table :3: Factor loading, Convergent Validity, Composite Reliability and Cronbach Alpha of the Constructs					

Constructs	Statements	Factor Loading	AVE	Composite Reliability	Cronbach Alpha
Perceived Cost	PC1	0.8717	0.804	0.942	0.922
	PC2	0.8745			
	PC3	0.9205			
	PC4	0.9186			
Perceived Ease of Use	PEOU1	0.9516	0.898	0.946	0.886
	PEOU2	0.9434			
Personalisation	P1	0.8409	0.569	0.796	0.674
	P2	0.6291			
	P3	0.7789			
Privacy	PRY1	0.9222	0.768	0.949	0.949
	PRY2	0.9295			
	PRY3	0.954			
Trust	TRUST1	0.9539	.956	.977	.954
	TRUST2	0.9472			
	TRUST3	0.4238			
Risk	RISK1	0.9438	0.872	0.953	0.927
	RISK2	0.9371			
	RISK3	0.9206			
Attitude	ATTITUDE1	0.8553	0.677	0.893	0.842
	ATTITUDE2	0.8033			
	ATTITUDE3	0.7906			
	ATTITUDE4	0.8407			
Subjective Norm	SN1	1	1	1	1
Perceived Behavioural Control	BC1	0.9296	0.889	0.985	0.984
	BC2	0.9545			
	BC3	0.9527			
	BC4	0.9275			
	BC5	0.9397			
	BC6	0.9184			
	BC7	0.9663			
	BC8	0.9559			
Adoption	ADOPTION1	0.8193	0.564	0.920	0.882
	ADOPTION2	0.7026			
	ADOPTION3	0.8694			
	ADOPTION4	0.8054			
	ADOPTION5	0.684			
	ADOPTION6	0.737			
	ADOPTION7	0.6748			

ADOPTION8	0.7402		
ADOPTION9	0.7039		

More than 0.7 Cronbach alpha value demonstrates the reliability of the questionnaire items (Table 3). Standardised CFA loadings for all items in the model exceed the minimum criteria for factor loadings of 0.60 (Hulland, 1999).

Composite reliability for all factors exceeds the required minimum of 0.79, with the lowest value being 0.796for personal preference for the use of services of MC (Table 3). AVE values for all constructs exceed 0.50, with the lowest value being 0.5644 for internet users' intention to adopt MC (Table 3). Hence, all three conditions for convergent validity were met. Discriminant validity was established by ensuring that the square root of AVE for each construct exceeded all correlations between that construct and any other construct (Gefen & Straub, 2005). Table 4 showcases the result of discriminant validity according to Fornell–Larcker Test.

Table:4: AVE values and Fornell–Larcker Test of Discriminant Validity.

Constructs	Adoption	Attitude	Perceived Behavioural Control	Perceived Cost	Perceived Ease Of Use	Perceived Risk	Personalisation	Privacy	Subjective/Social Norms	Trust
Adoption	0.794									
Attitude	-0.056	0.823								
Perceived Behavioural Control	-0.064	-0.006	0.944							
Perceived Cost	0.6	-0.114	-0.022	0.897						
Perceived Ease Of Use	-0.11	0.317	0.05	-0.132	0.948					
Perceived Risk	0	-0.153	-0.017	-0.022	-0.087	0.934				
Personalisation	-0.111	0.255	0.097	-0.13	0.245	-0.108	0.755			
Privacy	-0.125	0.266	0.21	-0.145	0.242	-0.106	0.741	0.952		
Subjective/Social Norms	0.599	0.022	-0.017	0.314	-0.099	0.152	-0.113	-0.128	1	
Trust	-0.123	0.274	0.232	-0.114	0.248	-0.105	0.729	0.949	-0.1	0.978

Hypothesis Testing Results

Examination of individual path coefficients reveals that three out of eight paths in the model were statistically significant at $p < 0.01$. Whereas the six paths, ie. Perceived Cost -> Attitude, Privacy -> Attitude, Personalisation -> Attitude, Attitude -> Adoption, Perceived Behavioural Control -> Adoption, and Trust ->Attitude did not had a significant relationship. A significant relationship was examined between the Perceived Ease of Use ($\beta=0.075$) and Perceived risk ($\beta=-0.026$) with the attitude toward MC (Table 5). This shows that mobile users will have a positive attitude toward the MC application if they find it easy to use. MC applications reducing the risk of tampering with personal data, unauthenticated viewing of personal data or transactions, and unauthorised use of data also developed a

positive attitude among mobile users. Whereas, Subjective Norm was found as a significant predictor of the adoption intention of MC by the mobile users ($\beta = 0.056$) (Table 5). Hence views of other related people for the use of a particular MC application played a major role in the

adoption of the MC application than the attitude toward the application or the control or good command over the technology. The results of the testing of the hypothesis are shown in table number 5.

| Table:5: Results of Regression and Hypothesis Testing					
	Hypothesis testing	**Std. Beta**	**T Statistics**	**P-value**	**Decision**
H1	Perceived Cost -> Attitude	0.056	1.033	0.302	Reject
H2	Perceived Ease of Use -> Attitude	0.075	3.284	0.001**	Support
H3	Personalisation -> Attitude	0.112	0.649	0.517	Reject
H4	Privacy -> Attitude	0.187	0.1	0.921	Reject
H5	Perceived risk -> Attitude	0.026	4.209	0.000**	Support
H6	Attitude -> Adoption	0.056	1.258	0.209	Reject
H7	Perceived Behavioural Control -> Adoption	0.07	0.773	0.440	Reject
H8	Subjective Norm -> Adoption	0.056	10.72	0.000**	Support
H9	Trust-> Attitude	0.206	0.772	0.440	Reject
Note: .** Relationship is significant at 0.01 level					
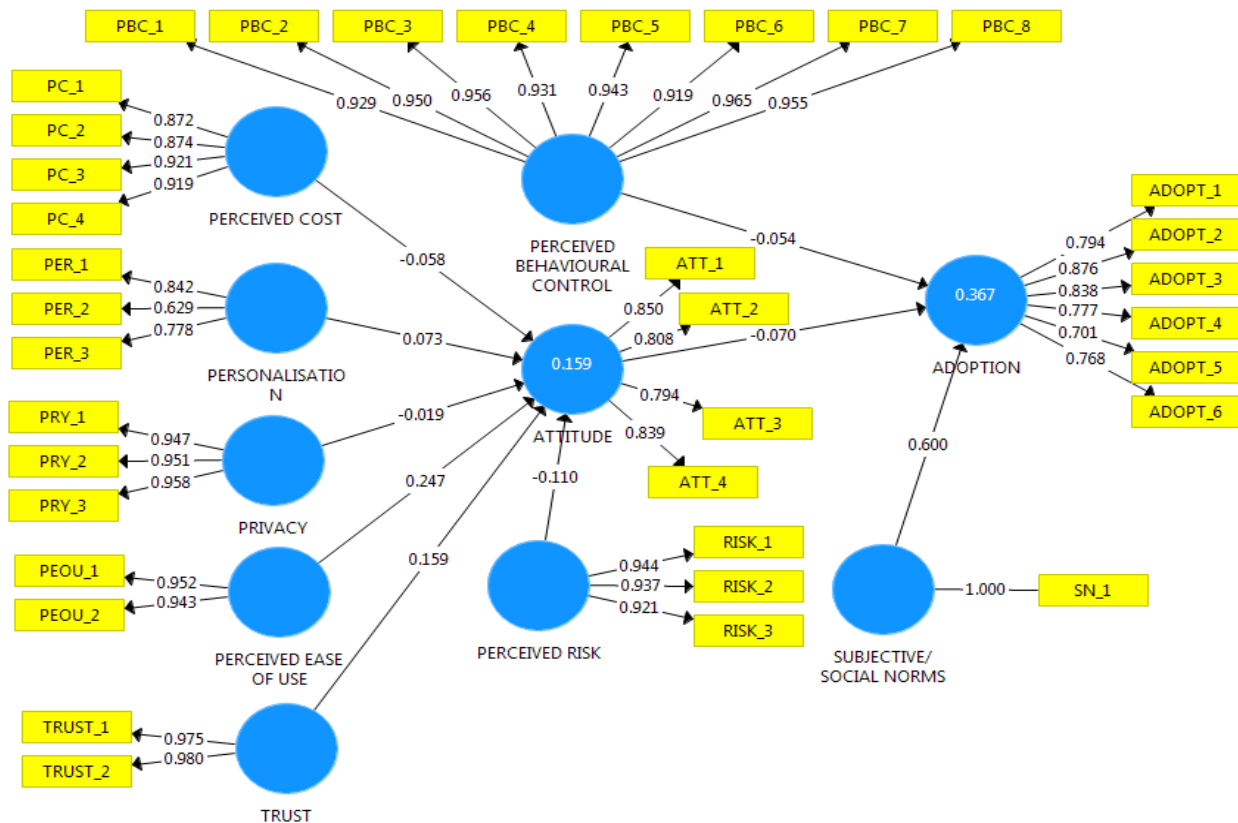
Figure 2: Structural Model Assessments

DISCUSSION AND IMPLICATIONS

MC is extensively used in most services such as banking and financial services, retail, healthcare, telecom, shopping, brokering, entertainment and information services. The existing literature has shown significant relation between perceived cost (Chong et al., 2012; Han et al., 2016), perceived ease of use (Wang et al., 2015; Hsiao and Chang, 2016), personalisation (Barutcu, 2008; Liébana-Cabanillas et al., 2017), security /risk (Oliveira et al., 2016; Zhang et al., 2012), privacy (Khasawneh et al., 2018; Ozturk et al., 2017) and trust (Rodríguez-Torrico et al., 2019; Marriott and Williams, 2018) in MC users' attitudes. However, our research found perceived cost, personalisation, privacy, and trust insignificant in predicting the perspective of MC users. Perceived ease of use and perceived risk were the only variables having a significant relationship and able to predict a 16.2 per cent variance in the attitude of MC users (Figure 2). Thus, based on the current study, perceived ease of use positively and significantly affects MC users' attitudes, whereas concern for security or risk associated with the operation of MC application negatively and significantly affected the Attitude of MC users.

Literature had also found attitude (Lu et al., 2018; Bailey et al., 2020), Subjective/Social Norms (Sun, J., and Chi, T., 2018) and Perceived Behavioural Control (Zhang et al., 2012) to a good predictor of adoption intention for using a particular mobile application. In the current study, only Subjective/Social Norms were examined, having a significant and positive effect on adoption intention for MC applications and predicting nearly 35.4 per cent variance in the adoption intention for MC applications (Figure 2). Based on the study model, Attitude and Perceived Behavioural Control were examined, negatively affecting the adoption intention, but the impact was not significant at the 0.05 level.

This research study brings several theoretical & practical implications. Theoretically, the study supports and contributes to the positive & significant influence of perceived use and the negative & significant influence of concern for security & risk towards the attitude of MC users. The study contributes to the existing theory because the results found in the research study differed from what was found in the literature review. The study contributes to filling in the literature gap by examining various dimensions of the construct 'Attitude towards MC'.

The study also contributes to the theory differently from existing literature when we see the predictors of Adoption intention. The study fills the gap in the literature by examining attitude, behavioural control & subjective norms as predictors of the adoption intention of MC and adds to the literature that subjective norms positively lead to the adoption intention of MC. Additionally, the study adds longitudinal research to the existing body of knowledge.

Five different variables have been taken in this research study for measuring the attitude towards MC users for using MC applications. The results were different from the previous studies and found perceived ease of use and the risk as the significant predictors of MC users' attitude. The marketers may evolve user-friendly design of websites and applications which are easy to use, simple to understand and operate by the less tech-savvy mobile users, leading mobile users to use more of the MC application for doing different transactions, as perceived use was found important variables towards MC adoption attitude. The findings of this study also have important implications for MC application developers or marketers by providing strategic insights for achieving success in maintaining and increasing the use of MC applications among internet users.

The marketers are also recommended to take care of security & privacy concerns while designing websites & MC applications, as security/risk was found to be one of the important factors which prevents people from adopting MC (Table 5) because users with mala fide intention find it challenging to use the data stored in the MC companies' server, affecting the adoption attitude of the MC users.

Taking care of this issue will increase the confidence level of people and may prompt them to adopt MC. MC marketers should continuously market such features of the company, which would motivate the customer with high-security concerns to use the particular MC applications. Third, MC marketers should develop the scheme of giving rewards to the MC users who referred

the application to other internet users, as social or subjective norms were seen as a significant predictor in the present study. As the study was motivated by the high penetration of mobile devices and low adoption rate of MC, and the researcher found to cost as an important factor in MC adoption, it is important to attract people to this medium by making it more user-friendly so that a less educated person can also involve in commerce without much effort. Moreover, giving rewards in the form of freebies, reward points, and discount coupons. Loyalty programmes, early access to newly released products etc., can also divert people's attention from the cost and risk involved.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This research study was based on the Theory of Planned behaviour. It has been observed that this theory lacks the environmental and economic aspects that affect an individual's intention to execute a specific behaviour. The theory does not address the time between the intention to adopt and actual behavioural action.

A small geographical area selected for the study is a limitation as it does not represent respondents' views nationally. This research output would be a significant study to gauge India's MC potential despite this limitation. The research can be widened with a better formulated in-depth survey with more samples from different parts of the country or a cross-cultural study to produce more representative results.

Future studies can be extended to include cultural context due to the diverse demographic characteristics of the Indian population. They can consist of additional variables like perceived entertainment or enjoyment to get more insights into the adoption-driven factors of MC. Future studies can also be extended with other social constructs and technological constructs. A longitudinal study can be conducted to know the changes in their behaviour and preferences over time in their consumer journey. In the future, the researcher can also identify the moderating variables from the existing constructs for further study.

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