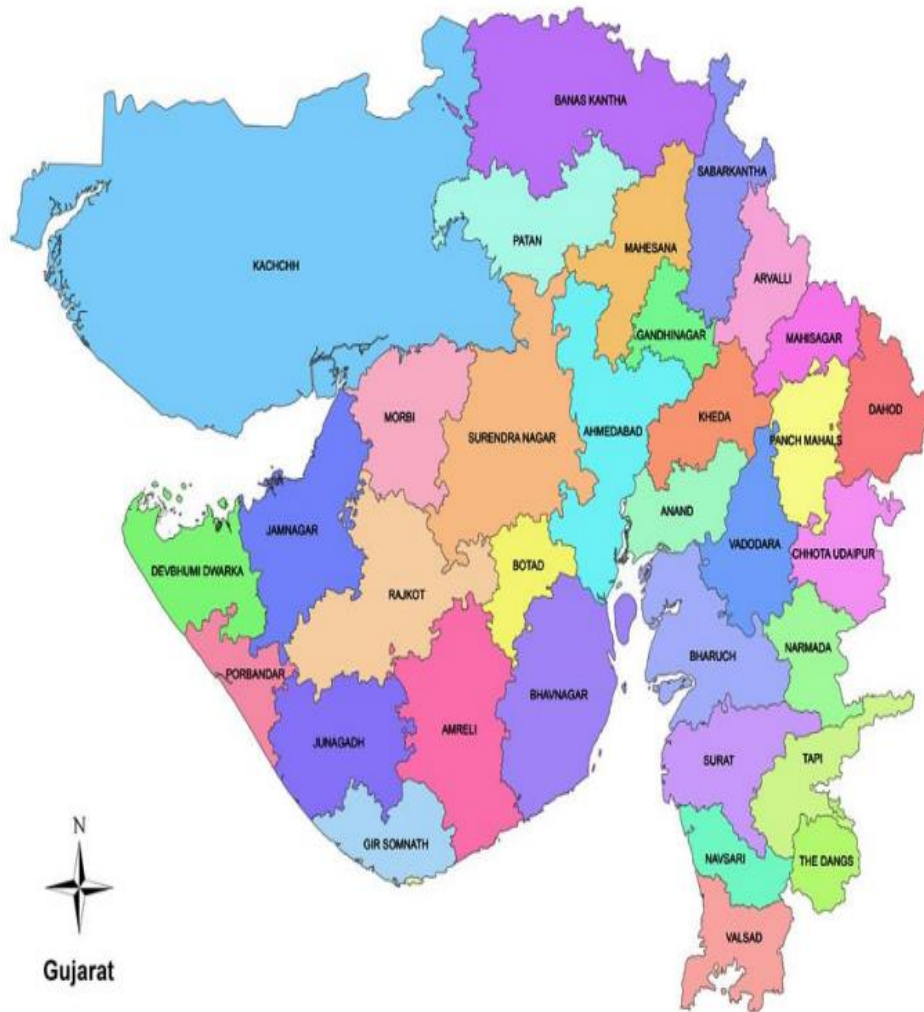


**ANNEXURE-I**  
**MAP OF GUJARAT STATE**



## ANNEXURE-II

### QUESTIONNAIRE

#### WELCOME TO QUESTIONNAIRE

**Sir/Madam,**

I, Ms Yamini K K, a Research Scholar in the Department of Commerce and Business Management, Faculty of Commerce, The Maharaja Sayajirao University of Baroda, perusing my doctoral research study on **DRIVERS OF m-COMMERCE ADOPTION**, and I am required to carry out a survey, for which I request you to spare your valuable time to fill up this questionnaire. I assure you that it is purely an academic exercise and the information provided by you would be kept strictly confidential. Thanking you, I remain.

(Ms Yamini K K)

**Please put a Tick Mark (✓) on the appropriate box as per your experience.**

**(Q.1) Your Age-Group (In Years):** 16 to 30 ☐ 31 to 50 ☐ Above 50 Years ☐

**(Q.2) Gender:** Male ☐ Female ☐

**(Q.3) Marital Status:** Unmarried ☐ Married ☐ Single ☐

**(Q.4) Type of Your Family:** Joint ☐ Nuclear ☐

**(Q.5) Occupation:** Student ☐ Service ☐ Self-Employed ☐ non-working ☐

**(Q.6) Annual Income [In Rupees]:** Less than 6 Lakhs ☐ 6 to 9 lakhs ☐ 9 to 12 lakhs ☐ More than 12 lakhs ☐

**(Q.7) Which Operating System of Smartphone is more user friendly?**

Android ☐ iOS ☐ Windows ☐ Others ☐

**(Q.8) How frequently do you shop on smartphone?**

Once in a Month ☐ Once in fortnight ☐ Once a week ☐ Many times a week ☐

Uncertain ☐

**(Q.9) Your preferred place of shopping using Smartphone?**

Work place ☐ Home ☐ Anywhere ☐

**(Q.10) your preferred time of shopping using Smartphone?**

Morning ☐ Afternoon ☐ Evening ☐ Late evening ☐

**(Q.11) Average Time that you Spend Each Time while searching & shopping:**

Less than 30 Minutes ☐ 30 to 60 Minutes ☐ More than 60 Minutes ☐

**(Q.12) You get information for Shopping online from**

Ad in Newspapers	Hoardings	Family Members	Friends	Colleagues	E-mail	SMS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**(Q.13) Reason for downloading a mobile shopping app?**

To Avail Discount	<input type="checkbox"/>	Easy Purchase	<input type="checkbox"/>	Easy Refund	<input type="checkbox"/>	User Friendly	<input type="checkbox"/>
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**(Q.14) Number of m-Commerce Applications, you have downloaded in your Smartphone:**

2 to 4 ☐ 5 to 8 ☐ 9 to 12 ☐

**(Q.15) You have used Smartphone for Following: [please tick as many as you online shop]**

Mobile, Computers	Cloths	Footwear	Fashion Accessories	Flowers & Gifts	Home Appliances	Furniture	Electronic items
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bags, luggage	Travel Tickets	Movie Tickets	Hotel Booking	Education	Trading	Fund Transfer	Groceries
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baby products	Gas Bill	Electricity bill	Phone Bill	Buy Books	Industrial goods	Health & Fitness	Games & Sports Products
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**(Q.16) Following are the list of m-Commerce apps. Pls put a tick mark in the appropriate place. Awareness=A; Downloaded=D; Used=U.**

App Name	A	D	U	App Name	A	D	U	App Name	A	D	U
Amazon India				Dominos				TataCliq			
Flipkart				Ajio				Wish.com			
Lenskart				Zomato				Koovs			
Paytm Mall				Groffers				Shopclues			
Snapdeal				Club Factory				Big basket			
eBay				Limeroad				Bookmyshow			
Decathlon.in				Jabong				Makemytrip			
Myntra				Voonik				Shein			
H&M				Craftsvilla				Trivago			
Aliexpress				Starbucks				OYO			
IRCTC				Uber				Nykaa			
Pepperfry				Shopify				OLX			
Firstcry				Swiggy				UberEats			
Groupon				Quikr				Banggood			
Justdial				Caratlane				Infibeam			
Yebhi				Croma store				Smartshopper			
Infibeam				Rediff.com				Indiamart.com			
Naapatol.com				Fabindia.com				ShopClues.com			
Shopping.IndiaTimes.com				Shopping.rediff.com				Jabong.com			
Travelguru.com				ClearTrip.com				Craftsvilla.com			

**(Q.17) Please put a Tick (✓) on ANY ONE of the following scales defined as:  
1= Strongly Disagree, 2= Disagree, 3=No Opinion, 4=Agree and 5=Strongly Agree.  
(Please note that the statements having asterisk (\*) are reverse coded)**

Sr. No	Selected Criteria	1	2	3	4	5
1.	Smartphone is not expensive					
2.	Transaction fee is not high for using m-Commerce					
3.	m-Commerce transactions save my money					
4.	Internet services are not expensive					
5*.	I incur an additional expense to switch from wired Internet payment to omnipresent m- Payment Option					
6.	Wireless Network connection fees for m-Commerce are not Expensive					
7.	I manage necessary means and resources to use m-Commerce					
8*.	I am afraid of unreasonable or fraudulent charges payable by me for m-Commerce					
9*.	m-Commerce are burden for me					

10.	I would like to receive messages on Sales, Special Price and Promotional coupons for the products of my interest					
11.	I wish to have the choice to register for mobile advertisements only for selected categories of products					
12.	It is important to receive information on products of my choice					
13.	It is necessary for m-Commerce Vendors to keep updated information about their customers for providing personalized offers					
14.	I am willing to share information with m-Commerce vendors for product or service-related information of my choice.					
15	Use of m-Commerce is an invasion of my privacy					
16	Location information invades my privacy					
17	My Personal information of needs to be kept confidential by m-commerce Vendors					
18	I am confident while making online purchases					
19	m-Commerce vendors are committed, they fulfil their agreement					
20	m-Commerce vendors are efficient at providing serving their customers					
21	I believe that M-Commerce vendors perform activities in accordance with customers' expectations					
22	Advances in Internet security technology provide trustworthy m-Commerce transactions					
23	Online stores that display assurance seals are trust worthier					
24	I feel confident in giving online details of debit card and credit card					
25	Payments process in m-Commerce is smooth and secure					

<b>Sr. No.</b>	<b>Selected Criteria</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
26.	I have a choice to opt-in or opt-out to share my personal information with third parties.					
27*.	Others can tamper with information of my m-Commerce transactions					
28*.	m-Commerce transactions have potential risk					
29*.	m-Tailors' information is not trustworthy					
30*.	Feeding payment details in smartphones have potential risk					
31*.	m-Commerce has inadequate information on the website and less operational reliability.					
32*.	There is a risk of an unauthorized third party overseeing the payment process					
33.	Regulations on m-Commerce minimise the privacy risks					
34.	It's easy to use smartphone for m-Commerce					
35.	Interacting with M-Commerce is clear & easy to understand					
36.	Using m-Commerce is comfortable with online transactions					

37.	It is convenient to get information on offers and promotional coupons					
38.	It would be easy to become skilful at using cell phone or PDA for m-Commerce transactions					
39.	It is easy to search & compare products & services on smartphone.					
40.	m-Commerce helps me in accomplishing tasks faster.					
41.	m-Commerce makes life better					
42.	Use of m-Commerce reflects my personality					
43.	I know more about new products and services before other people do					
44.	m-Commerce provides flexibility to conduct business transactions anytime from anywhere					
45.	People using m-Commerce are better informed than those using the TV, newspaper and magazines about the product/service they intended to purchase					
46.	People who are important to me think that I should use M-Commerce services					
47.	Majority of my friends/ colleagues use m-Commerce services					
48.	People who are important to me, think that using m-Commerce services is a good/ wise idea					
49.	People who are important to me, think that use of mobile payment services is beneficial					
50.	I trust my intuition more than advice from others while using new technology.					
51.	I seek out the opinion of those who have tried new products or brands before I try them					
52.	Friends and relatives have influenced my decision to use m-Commerce					
53.	Mass media (e.g., TV, newspaper,radio) recommendations have influenced my decision to use m-Commerce					

Sr. No.	Selected Criteria	1	2	3	4	5
54.	I am able to use mobile commerce services without the help of others					
55.	I have necessary means and resources to use mobile commerce services					
56.	I have knowledge and ability to use mobile commerce services					
57.	I am always waiting to receive m-Commerce services					
58.	I will recommend using m-Commerce service to others					
59.	Making m-Commerce transactions is entirely within my control					
60.	I have access to the software, hardware and network services required to use mobile commerce services.					
61.	My general intention to purchase via mobile phone is very high					
62.	Using m-Commerce services is a good /wise idea					
63.	I am in favour of using m-Commerce					
64.	M-Commerce services is beneficial for me					

65.	I hold positive perception about using m-Commerce services					
66.	I feel satisfied while making m-Commerce transactions					
67.	It is essential to make use of m-Commerce					
68.	I hold positive views towards offering mobile coupons for discounts					
69.	I would like to undertake online scanning of products prior making a purchase					
70.	I enjoy buying products & services via m-Commerce					
71*.	Total costs to perform transactions via mobile phone are more than other channels					
72.	I would prefer to use m-Commerce , which is personalised for me					
73.	If Privacy is taken care of, I would like to adopt m-Commerce					
74.	I want to adopt m-Commerce because I trust it					
75.	Recent laws reduce the risk related to m-Commerce, which influence its adoption					
76.	M-Commerce's userfriendliness makes easy adoption of it					
77.	Hassle free shopping through smartphone influences m-Commerce adoption					
78.	Positive attitude of Society towards m-Commerce influences its adoption					
79.	I will continue to make use of m-Commerce transactions in the near future					
80.	I intend to make more m-Commerce transactions in future than I do now					
81.	I will strongly recommend others to use m-Commerce services					

**(Q.18) Your overall satisfaction as an m-Commerce user:**

Highly Dissatisfied ☐      Dissatisfied ☐      No Opinion ☐      Satisfied ☐      Highly Satisfied ☐

\*\*\*\*\*

### ANNEXURE-III

#### TABULAR REPRESENTATION OF REVIEW OF LITERATURE

##### LITERATURE REVIEW ON M-COMMERCE ADOPTION

Sr. No	Author/s (year)	Title of the Research paper	Major observations/ Findings
1	Khalifa & Cheng (2002)	Adoption of M-commerce: Role of Exposure	The level of exposure to a certain technology will affect the certainty and clarity of his or her attitude which may affect his or her adoption intention positively or negatively. The study also proved that social norms highly influence their adoption decision.
2	Vrechopoulos, Constantiou, Mylonopoulos & Sideris (2002)	Critical Success Factors for Accelerating M-commerce Diffusion in Europe	User-friendly mobile shopping interfaces, better application and better-quality devices as well as reduced price, resolving bandwidth, security and coverage problem are the critical factors, if proper care is given to handle these issues that may help in enhancing the adoption rate
3	Anckar & D'incau (2002)	Value creation in m-commerce: findings from a consumer survey	The study revealed the unwillingness of users in receiving personalised shopping messages. Young as well as old generation are equally eager to use mobile entertainment services. The study also showed that people treat m-commerce as a supplement not substitute to e-commerce.
4	Tariq Bhatti (2003)	Exploring Factors Influencing the Adoption of M-commerce	Finding of the study using extended Technology Acceptance Model by integrating Innovation Diffusion Theory revealed that perceived ease of use, subjective norms and behavioural control affects adoption intention positively. Perceived ease directly influences the adoption decision whereas behavioural control and social norm indirectly affects via perceived ease of use.
5	Hung et al. (2003)	Critical factors of WAP services adoption: an empirical study	Revealed that perceived cost, innovativeness, convenience of use, connection speed, peer influence, and other facilitating variables all affect m-Commerce adoption when utilising the Theory of Planned Behaviour and Innovation Diffusion Theory on Wireless Application Protocol (WAP).
6	Bill Anckar, Christer Carlsson & Pirkko Walden (2003)	Factors Affecting Consumer Adoption Decisions and Intents in M-commerce: Empirical Insights	The poor networks and not so user-friendly interface of mobile devices constitute significant barriers for those who have used the services and the high initial and operating costs were found to be the key factors that have prevented others for the adoption of mobile services.
7	Constantinos Coursaris, Khaled Hassanein & Milena Head (2003)	m-Commerce in Canada: An Interaction Framework for Wireless Privacy	The findings revealed the need for taking more measures to improve privacy and security concerns in wireless environment and presented a new interaction framework for more privacy and security in wireless environment
8	Leger Pierre-Majorique, Luc Cassivi & Wamba (2004)	Determinants of the adoption of customer-oriented m-commerce initiatives	Disclosed that e-Commerce adoption prompts people to adopt m-commerce. The size of the firm has nothing to do with m-commerce adoption and Software companies are more motivated to adopt m-commerce. Firms focusing on B2C are showing more readiness to adopt m-commerce than B2B firms

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
9	K. Petrova (2004)	M-commerce Adoption: End-User/Customer Views	Proposed a research model by defining the relationships between users, technology, and the m-Commerce value chain and proposed a relationship model for m-Commerce and the research study was able to validate its structure via supply and demand models and through existing references.
10	Margherita Pagani (2004)	Determinants of adoption of third generation mobile multimedia services	The researcher has studied about the third-generation mobile multimedia services by consumers in Italian market and found that price, perceived ease of use, speed of use and perceived usefulness Have significant impact on the adoption decision of multimedia mobile services.
11	Kenneth Yang (2005)	Exploring factors affecting the adoption of m-commerce in Singapore	The researcher has employed the Technology Acceptance Model (TAM) to examine factors affecting Singaporeans attitudes toward this emerging mobile technology and applications and found that Perceived usefulness has influenced their attitude and consumer's past adoption behaviour, innovativeness and demographic variable age as well as gender affected their adoption behaviour.
12	Pedersen, P. E. (2005)	Adoption of Mobile Internet Services: An Exploratory Study of M-commerce Early Adopters	The researcher has extended TAM by incorporating perceived risk and cost into the TAM to find B2C m-commerce adoption decision and found that most important determinant for behavioural intention is compatibility and a positive influence of perceived risk on behavioural intention was also revealed. The study further discloses indirect influence of perceived ease of use and usefulness on actual usage via Behavioural intention.
13	Nysveen, Pedersen & Thorbjornsen (2005)	Intentions to use mobile services: Antecedents and cross-service comparisons	The researcher has incorporated motivational factors like usefulness, enjoyment, ease of use and expressiveness along with subjective norms, attitude and perceived behavioural control on adopting mobile chat services and they found that all these factors significantly affect adoption decision of mobile services. The role of gender plays a major role as female users are attracted to mobile chat services due to social influence and perceived enjoyment involved in chat services whereas males are more attracted due to usefulness and expressiveness feature of mobile chat services.
14	Wu & Wang (2005)	What drives mobile commerce? An empirical evaluation of the revised technology acceptance model	Combined the TAM and Innovation Diffusion Theory to investigate what determines users' mobile commerce acceptance with regard to online banking, shopping, investing and online services. The findings indicated that all variables except perceived ease of use significantly affected users' behavioural intentions. Among them, compatibility had the most significant influence.
15	Patricia Harris (2005)	Adoption and usage of m-commerce: a cross-cultural comparison Of Hong Kong and the United Kingdom	The researcher analysed the influence culture plays in m-commerce decisions in the UK and Hong Kong and discovered that even in the UK, m-commerce customers found the service expensive but were still willing to accept other m-commerce services. Hongkong users don't find m-commerce as expensive as UK users, yet adoption is poor because value-added services are expensive.



<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
16	Anthony Chew (2006)	The Adoption of M-Commerce in the United States	The researcher has revealed that trust, privacy, perceived usefulness and ease of user, e-commerce adoption, subjective norms and innovativeness affects adoption decision.
17	Sendecka (2006)	Adoption of mobile services: Moderating effects of service's information intensity	The researcher has found that perceived behavioural control, perceived expressiveness and compatibility positively affected the mobile service adoption and also revealed that information intensity moderately affected the relationship between perceived expressiveness, enjoyment and perceived control with adoption intention
18	Lin & Wang (2006)	An examination of the determinants of customer loyalty in mobile commerce contexts	According to the study on the impact of consumer loyalty on m-commerce adoption, trust, perceived value, habit, and customer satisfaction, all influenced the decision to adopt m-Commerce.
19	Enrique Bigné, Carla Ruiz & Silvia Sanz (2007).	Key Drivers of M-commerce Adoption. An Exploratory Study of Spanish Mobile Users	The researcher has analysed the main predictors and found that age, experience, attitude and the frequency and length of mobile use significantly influence the adoption decision and all the factors except experience influence m-commerce continuance intention
20	Niina Mallat (2007)	Exploring Consumer Adoption of Mobile Payments - A Qualitative Study	Factors inhibiting mobile payment adoption reflect the immature state of mobile payment market, and include premium pricing, Perceived incompatibility with large value purchases, complexity of payment procedures, a lack of widespread merchant acceptance and perceived risks.
21	Paul A Pavlou, Ting Lie, Angelika Dimoka (2007)	An integrative model of m-commerce adoption	The researcher has tried to develop a model of adopting m-commerce by analysing the Behavioural process involved during getting, giving information as well as purchasing with mobile and the model suggested main factors like mobile device display features, navigability, information protection, delay in downloading and Personalisation can improve the adoption rate.
22	Suleyman Barutcu (2007)	Attitudes towards mobile marketing tools: A study of Turkish consumers	The research revealed the negative attitude of users towards m-shopping which may be because of the unfamiliarity with the services during that time period. On the other hand, users have positively accepted mobile based advertising, discount coupons banking, entertainment as well as location-based services. The study also revealed that consumers are highly price sensitive.
23	Khalifa & Shen (2008)	Drivers for transactional b2c M-commerce adoption: Extended theory of planned behavior	The study was motivated by the contradiction between the high penetration rate of mobile devices and the low adoption rate of m-commerce. To understand the drivers for m-commerce adoption, this study extended the Theory of Planned Behaviour Model by incorporating the direct and indirect effects of perceived consequences. Cost, convenience, privacy, efficiency and security were identified important factor for the adoption of M-commerce

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
24	Suleyman Barutcu (2008)	Customers' Attitudes Towards M-commerce and Mobile Marketing in Consumer Markets	The mobile phone users have positive attitudes towards mobile advertising, entertaining and discount coupons, but have negative attitude toward mobile shopping due to security problem. They are highly price sensitive as the lower price is found to be the most important factor for adoption of m-commerce.
25	Dash, S., & Saji, K. B. (2008).	The role of consumer self-efficacy and website social-presence in customers' adoption of B2C online shopping: an empirical study in the Indian context.	The researcher has studied the role of self-efficacy and website social presence on B2C m-shopping adoption intention and found that self-efficacy and website social presence of consumers influence trust, perceived risk and usefulness which in turn will influence the adoption decision.
26	Mallat & Tuunainen (2008)	Exploring Merchant Adoption of Mobile Payment Systems: An Empirical Study	The researcher has identified the main drivers and barriers in m-payment adoption, drivers help to increase sales and reduce cost of payment processing and barriers include system complexity, unfavourable revenue sharing models, lack of critical mass as well as lack of standardization.
27	Suhong Li et.al. (2008)	The influence of Gender on new technology adoption and use-m-commerce	Both male and female showed similar interest in entertainment services, according to a study on gender and m-commerce usage. Males want more communication, information, and transaction services because they adopt technology faster than female counterparts.
28	Hong,Thong, Moon & Tam, (2008).	Understanding the behavior of mobile data services consumers.	Based on the Decomposed Theory of Planned Behaviour, the researcher has found the factors that affect mobile data users to continue with the services and found that perceived mobility, attitude, social and media influence and perceived monetary value influence consumers' intention to continue with mobile data services.
29	Despo Ktoridou, Epaminondas Epaminonda, Hans Ruediger Kaufmann (2008)	Technological challenges and consumer perceptions of the use of mobile marketing: evidence from Cyprus	Consumers acquaintance with mobile marketing seems to be differentiated by age, gender and educational level and those who are unfamiliar with the new mobile marketing tool showed willingness to learn about it and participate in relevant communication programme, given that their privacy is respected.
30	Wong & Hsu (2008).	A confidence-based framework for business to consumer (B2C) mobile commerce adoption	Recognized crucial elements of B2C m-commerce adoption and established a confidence-based framework by extending TAM with psychological factors like institution-based, history-based and personality-based confidence as well as behavioural factors consisting of perceived ease of use and perceived usefulness.
31	Ranjan B. Kini (2009)	Adoption and Evaluation of M-commerce in Chile	The respondents in this study are familiar with the technology and applications, but they have not become innovative users. Based on the study, the researcher concluded that what is important to the growth of m-commerce is not technology or product innovation, but a change in people's mindset so they will adopt new technology.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
32	Wei, Marthandan, Chong, Ooi, & Arumugam, (2009).	What drives Malaysian m-commerce adoption? An empirical analysis	As per the study, the main drivers that exert significant positive relation with adoption intention are social influence, perceived usefulness. Perceived cost and trust whereas perceived ease of use and trust were not significantly influence adoption decision.
33	Edwin Saidi (2009)	Mobile opportunities, mobile problems: Assessing m-commerce implementation issues in Malawi”	The main problem faced during initial stages of m-commerce were due to handset limitation, authentication issues, absence of telecommunication infrastructure as well as business related challenges like huge capital investment rate, low literacy, trust only on cash as medium of exchange, lack of legal framework to regulate m-payment system and lack of expertise to develop safety and security measures
34	Md. Aminul Islam et al. (2010)	Adoption of M-Commerce Services: The Case of Bangladesh	The m-commerce adoption factors that exert significant positive influence are cost and pricing, security, privacy, rich and faster information and the factors that could not exert major influence are convenience, awareness and knowledge and perceived usefulness
35	Basheer & Ibrahim (2010).	Mobile marketing: Examining the impact of trust, privacy concern and consumers' attitudes on intention to purchase	The study on trust and privacy in mobile marketing found a positive relationship between perceived usefulness and entertainment and intention to participate and purchase m-marketing services, but a negative relationship between privacy, personal use, and extensive advertising with participation and purchase decisions.
36	Rajanish Das and Sujoy Pal (2010)	Exploring the factors affecting the adoption of mobile financial services (MFS) among the rural under-banked	The main inhibiting factor in the adoption of Mobile Financial Services (MFS) are lack of trust, high perceived financial cost, and lack of readiness to adopt new technology and financial cost involved. Even the perceived risk, privacy and security are not significantly affecting the purchase decision, may be due to lack of awareness about the risk of new technology adoption
37	Tripathi & Mittal (2010)	Investigating the Impact of Mobile Marketing in the Current Indian Scenario and Proposing Customerization as a Solution	Instead of spending a lot on mobile marketing and advertising, it's more profitable to personalise messaging for clients. The report advises 'Customerization' and advertisers should ask consumers permission and convince them to opt in before sending marketing communications and should aim to prevent unnecessary messages as it may negatively affect customers' perception towards company and its goods.
38	Paul Gerhardt Schierz (2010)	Understanding consumer acceptance of mobile payment services: An empirical analysis	The major factors that influence mobile payment services are mobility, compatibility and social norms whereas perceived risk was not found to be a strong influence in m-payment adoption
39	Kim, Mirusmonov & Lee (2010).	An empirical examination of factors influencing the intention to use mobile payment	The researcher has conducted a study among early and late adopters and revealed that perceived usefulness and ease of use as well as compatibility significantly affect adoption decision. The researcher has also revealed that perceived ease of use was preferred by early adopters whereas late adopters focus on perceived usefulness.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
40	Uchenna et.al. (2011)	M-commerce Usage in Malaysia: Assessing Key Determinants	Perceived usefulness, perceived cost and subjective norms are important predictors for m-commerce usage among Malaysian consumers. May be due to the familiarity with the technology interface, perceived ease of use may not be the strongest predictor. Perceived trust has a low explained variance compared to other predictors in this study.
41	Sadi and Noordin (2011)	Factors influencing the adoption of M-commerce: An exploratory Analysis	The exploratory factor analysis revealed that Perceived Usefulness, Perceived ease of use, Perceived Trust, Perceived Cost, Subjective Norm, Perceived Behavioural Control, facilitating condition, Self-Efficacy, Attitude Towards Use are the important underlying factors influencing the adoption of M-commerce. Perceived usefulness found to be one of the critical factors, besides, the usefulness of m-commerce, the findings also revealed the importance of trust in m-commerce
42	Wei-Han G Tan, Boon-In Tan and Keng-Boon Ooi (2011)	Cash, Credit Card or Mobile Phone? Exploring the intention to adopt Mobile Credit Card: a conceptual model	The study adopted the TAM with the incorporation of two additional constructs, the personal innovativeness and social influences. The study reveals a clear link between Perceived usefulness and Perceived ease of use and the adoption of mobile credit card. The study also reveals that personal innovativeness and social influence are important factors affecting the customers' adoption
43	Safeena, Hundewale & Kamani (2011)	Customer's adoption of mobile-commerce a study on emerging economy	The study has considered five factors perceived usefulness, perceived ease of use, subjective norm, consumer awareness about mobile banking and perceived risks associated with mobile banking. The study concluded that all these five factors have a strong and positive effect on customers to accept mobile banking system
44	Ching Mun Cheah et.al. (2011)	Factors Affecting Malaysian Mobile Banking Adoption: An Empirical Analysis	Factors such as perceived usefulness (PU), perceived ease of use (PEOU), relative advantages (RA) and personal innovativeness (PI) were found positively related with the intention to adopt mobile banking services. However, social norms (SN) were the only factor found insignificant. Perceived risks (PR) were negatively associated with the mobile banking adoption.
45	Zhou, T. (2011)	An empirical examination of users' post-adoption behaviour of mobile services	The results using partial least squares indicated that expectation confirmation, perceived ease of use, perceived usefulness and usage cost significantly affect users' satisfaction and also in determining their postadoption behaviour. In addition, perceived usefulness has a direct effect on the continuance intention.
46	Lin, H. F. (2011).	An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust	The researcher has examined the effect of innovation attributes viz., perceived relative advantage, compatibility and ease of use as well as knowledge-based attributes viz., perceived competence, benevolence and integrity. On attitude and behavioural intention among potential as well as repeat customers. The findings showed that ease of use, compatibility, relative advantage, integrity and competence significantly affects attitude and attitude affects behavioural intention to adopt/ continue with m-banking

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
47	Zhang, Zhu & Liu (2012)	A meta-analysis of mobile commerce adoption and the moderating effect of culture.	By using extended TAM model conducted a meta-analysis of studies related the effect of culture on m-commerce adoption behaviour and the data was tested using structural equation modelling. The researcher has tried to find the moderating effect of culture by dividing it into western and eastern culture and findings showed that culture has moderating effect in the adoption decision of m-commerce.
48	Zhou and Lu (2011)	The effects of personality traits on user acceptance of mobile commerce	Extrovert nature has a strong impact on trust, while neuroticism has a detrimental effect on trust and perceived usefulness, according to a study that used partial least squares to analyse the effects of personality traits like extroversion, openness to experience, conscientiousness, agreeableness, and neuroticism on B2C m-commerce adoption.
49	Mohamed Khalifa, Sammi, Cheng & Kathy Ning Shen (2012)	Adoption of m-commerce: A Confidence Model	Investigated the moderating role of confidence in intention formation within the context of m-commerce adoption, they developed and empirically tested a model with trial, communication and observation and the result implies that interactive (i.e., trial and communication) and passive (i.e., observation) approaches are mutually significant in the adoption decision of m-commerce.
50	Zarmpou, Saprikis, Markos & Vlachopoulou (2012)	Modeling users' acceptance of mobile services	Conducted a study on mobile service acceptance based on the variables, namely, functionality, trust, innovativeness, relationship and mediating factors of PEOU and PU on behavioural intention of the consumers and the findings revealed perceived usefulness and innovation strongly affects adoption decision whereas trust and perceived ease of use has no direct effect on consumers adoption intention.
51	Chong, Chan & Ooi (2012)	Predicting consumer decisions to adopt mobile commerce: Cross country empirical examination between China and Malaysia	A cross country study using the extended TAM and Diffusion of Innovation (DOI) studied the major predictors of m-commerce acceptance and found that Malaysian consumer decisions can be predicted with trust, cost, social influence, and variety in services whereas for the Chinese consumers trust, cost and social norms impacts their decision to adopt m-commerce
52	Keramati et al. (2012)	A combinative model of behavioural and technical factors affecting 'Mobile'-payment services adoption: an empirical study	According to a study, trust, ease of use, cost, utility, payment habit, compatibility, social norm, skills, and convenience are the primary characteristics that influence m-payment adoption intention.
53	Goldfarb and Tucker (2012)	Shifts in privacy concerns. American Economic Review	A study conducted to correlate age and privacy concerns among three million people over a period of eight years revealed that the older people have concerns regarding privacy issues compared to the younger ones and the older people are less likely to divulge their personal details

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
54	Janine Joubert and Jean-Paul Van Belle (2013).	The Role of Trust and Risk in M-commerce Adoption within South Africa	The researcher was concentrating on early adopters and found that image and compatibility has more significant role to play in the adoption decision than perceived risk and trust. The researcher has revealed that system-based trust significantly affects adoption decision and the risk and personal disposition to trust helps to determine trust whereas perceived risk did not have any direct impact on adoption decision.
55	Ayman Bassam Nassuora (2013).	Understanding factors affecting the adoption of M-commerce by consumers	The study revealed that perceived ease of use and usefulness perceived cost, trust and privacy were found to be the most important predictors for m-commerce usage, among this perceived trust was the most fundamental factor which may help consumers to overcome uncertainty and risk.
56	Chong, A.Y.L.(2013a)	Predicting m-commerce adoption determinants: A neural network approach	This study extends UTAUT to examine m-commerce adoption factors. Perceived usefulness, trust, enjoyment, and innovation are included. The neural network model performed better than the regression model in predicting m-commerce adoption because it captured non-linear relationships between predictors like perceived value, trust, perceived enjoyment, personal innovativeness, user demographic profiles (such as age, gender, and educational level), effort expectancy, performance expectancy, social influence, and facilitating conditions.
57	Chong, A.Y.L.(2013b)	A two-staged SEM-neural network approach for understanding and predicting the determinants of m-commerce adoption	According to a two-staged SEM-neural network strategy to studying B2C m-commerce, the best indicators of m-commerce adoption are trust, perceived utility, network influence, variety of services, and perceived enjoyment.
58	Chong, A. Y. L. (2013c).	Understanding mobile commerce continuance intentions: an empirical analysis of Chinese consumers.	The researcher has studied about the continuance intention of m-commerce by extending Expectations-Confirmation Model (ECM), adding extra variables viz., trust, perceived cost, perceived ease of use and perceived enjoyment and the results revealed that perceived cost, usefulness, ease of use, trust, satisfaction and enjoyment significantly influence the continuance intention of m-commerce.
59	Chen, Zhang & Lee (2013).	A cross-culture empirical study of M-commerce privacy concerns	Koreans are more likely to use mobile commerce than American consumers because the later are more worried about protecting their personal information, according to a study by a researcher. While income has no bearing on the adoption decisions of US consumers, it has a substantial impact on the adoption decisions of Korean consumers.
60	Adebiyi Ayodele, Alabi Esther, Ayo Charles and Adebiyi Marion (2013).	An Empirical Investigation of the Level of Adoption of Mobile Payment in Nigeria	The positive attitude of people towards cashless economy is due to the inherent advantages of m-payments, such as ease of use, convenience, ease of access, and reduced transaction time. However, lack of trust in service providers and agents, security and privacy issues, cost of services, and complexities of user interfaces prevent successful implementation of m-payment services in the country.

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61	Cobanoglu et al. (2015).	Are consumers ready for mobile payment? An examination of consumer acceptance of mobile payment technology in restaurant industry	According to a study on mobile payment adoption in the restaurant business, the foremost variables that influence consumers' desire to adopt m-payment are "compatibility with lifestyle," followed by "usefulness," "subjective norm," "security," and "prior experience with mobile payment".
62	Phonthanukitithaworn, Sellitto & Fong (2015).	User intentions to adopt mobile payment services: A study of early adopters in Thailand	Studied m-payment adoption in Thailand based on TAM and revealed that perceived trust, ease of use, compatibility, perceived usefulness, social norms and perceived cost are the core factors contributing largely towards its early adoption.
63	Lee & Wong (2016).	Determinants of mobile commerce customer loyalty in Malaysia	The findings of this study by using Structural Equation Modelling (SEM) method exposed that efficiency, commitment, fulfilment, privacy, system availability, trust, satisfaction affects loyalty decision. Among this it was found that efficiency affect significantly on satisfaction which leads to loyalty. Similarly, commitment strongly affects loyalty than trust and satisfaction.
64	Kalinic & Marinkovic (2016).	Determinants of users' intention to adopt m-commerce: an empirical analysis	Based on TAM model conducted a study on M-commerce adoption intention which revealed perceived usefulness and ease of use significantly and directly affects adoption intention. The study also disclosed that customization and social influence strongly affects perceived usefulness and customization, mobility and perceived innovativeness significantly affect perceived ease of use.
65	Han, Thao Nguyen & Anh Nguyen (2016).	Antecedents of intention and usage toward customers' mobile commerce: Evidence in Vietnam.	The researcher has tried to analyse m-commerce adoption factors using extended Technology Acceptance Model (TAM), by incorporating personal innovativeness, quality dimension, cost and playfulness as antecedents and the results showed that irrespective of its advantage of perceived usefulness and ease of use, Vietnam consumers are reluctant to pay for m-commerce services
66	Ting et al. (2016)	Intention to use mobile payment system: a case of developing market by ethnicity	The study using Theory of Planned Behaviour (TPB) to find the factors affecting m-commerce adoption among Chinese and Malaysian consumers showed that attitude, subjective norms and perceived behavioural control exert a great impact on adoption decision
67	Han et al., (2016)	Antecedents of intention and usage toward customers' mobile commerce: Evidence in Vietnam	A study regarding the drivers of m-commerce adoption among Vietnamese consumers using extended Technology Acceptance Model (TAM) by using factors like quality dimensions, personal innovativeness, playfulness and cost factors as antecedents showed that Vietnamese consumers are not in favour of paying for mobile commerce in spite of the usefulness and ease of use
68	Arpaci (2016)	Understanding and predicting students' intention to use mobile cloud storage services	A study conducted to know the extent of impact on attitude with respect to privacy, security and trust on the student's intention to use mobile cloud storage found that the degree of trust increases if the cloud service providers can assure privacy and security strictly, consumers develop positive attitude towards adopting these services

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69	Cheung & To (2017)	The influence of the propensity to trust on mobile users' attitudes toward in-app advertisements: An extension of the theory of planned behaviour	Opined that if a person develops the trust on the expected behaviour of the other person leading to a desirable outcome, then a favourable attitude is developed, so trust affect both expectation and outcome and can be regarded as an antecedent which leads to a particular behaviour.
70	Liébana-Cabanillas, Marinković & Kalinić (2017).	A SEM-neural network approach for predicting antecedents of m-commerce acceptance	Conducted on m-Commerce adoption factors in the Republic of Serbia by using Structural equation modelling (SEM) and neural network approach by extending TAM by incorporating trust, customization, mobility and customer involvement and found that customer involvement and customization are the most important factor that decide the adoption decision of m-commerce.
71	Marinkovic & Kalinic (2017).	Antecedents of customer satisfaction in mobile commerce: Exploring the moderating effect of customization.	Perceived usefulness, mobility, Trust, and perceived enjoyment were found to be significant predictors of customer satisfaction in m-commerce adoption by taking factors from several theories, such as perceived usefulness from TAM, perceived enjoyment from flow theory, social influence from UTAUT, and added additional factors, such as trust and mobility, to determine significant drivers of customer satisfaction in m-commerce.
72	Natarajan, Balasubramanian & Kasilingam, (2017).	Understanding the intention to use mobile shopping applications and its influence on price sensitivity	Researchers studied mobile apps used for purchasing by extending TAM and DOI by adding perceived enjoyment, perceived risk, and personal innovativeness, and using Experience, Gender, and frequency of use as moderators. Perceived risk and personal innovativeness played a big effect in m-shopping adoption, and innovative persons with high m-shopping intentions are less price sensitive.
73	Marriott & Williams (2018).	Exploring consumers perceived risk and trust for mobile shopping: A theoretical framework and empirical study	The study emphasizes the importance of removing psychological, financial and performance risks by enhancing trust towards m-payment channel as well as vendors. The result also revealed that age and gender affect m-shopping adoption decision which necessitates retailers to develop marketing strategies based on the target demographic to improve their intention to adopt m-shopping.
74	Shankar & Datta (2018).	Factors affecting mobile payment adoption intention: An Indian perspective	The results of m-payment adoption study by extending TAM showed the significant positive antecedents viz., self-efficacy, perceived usefulness and ease of use whereas subjective norms and personal innovativeness were not found to play a major role in m-payment adoption decision.
75	Blaise, Halloran & Muchnick (2018).	Mobile commerce competitive advantage: A quantitative study of variables that predict m-commerce purchase intentions.	It has been found that consumers' purchase intentions are influenced by factors such as social influence as well as their perceptions of performance and effort expectancies and the facilitating conditions of trust in the United States.



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76	Chauhan, Mukhopadhyay & Jaiswal (2018).	The adoption of mobile app for B2C transaction in platform marketplace: An empirical examination of key drivers	Conducted research to know the factors affecting the adoption of mobile apps for B2C m-commerce transaction and found that subjective norm, observability, relative advantage, age and education level affect the adoption decision positively. Study also revealed that people prefer to adopt complex mobile apps with more functionality. Regarding the demographic variable, gender, it was found that female users are more inclined to adopt m-commerce than their counter parts.
77	Sun & Chi (2018).	Key factors influencing the adoption of apparel mobile commerce: an empirical study of Chinese consumers	Conducted a study to find the main factors influencing the Chinese consumers' intentions to use apparel m-commerce by using multiple regression analysis and the results showed that perceived usefulness and ease-of-use, subjective norm, compatibility and experience positively and significantly affect the adoption of apparel m-commerce.
78	Roy, Balaji, Quazi & Quaddus (2018).	Predictors of customer acceptance of and resistance to smart technologies in the retail sector	Studied consumers' acceptance of smart retail technology (SRT) in Australia by using extended TAM, by integrating added variables like technology readiness, superior functionality and store reputation and found that TAM variables along with extended variable helped in identifying the technology acceptance in retailing among consumers.
79	Sharma, Sharma & Dwivedi (2019).	A hybrid SEM-neural network model for predicting determinants of mobile payment services.	Performed a study to find the user's willingness to adopt mobile payment services in Oman by modifying TAM by adding constructs such as mobility, customization, awareness of benefits, self-efficacy along with perceived trust and security. The research model was tested by SEM and validated and ranked the key constructs by using Neural network. All other constructs except perceived usefulness was found to play a significant role in adopting m-payment services by new customers as well as retaining the existing consumers.
80	Sujatha & Sekkizhar (2019)	Determinants of M-Commerce Adoption in India Using Technology Acceptance Model Infused with Innovation Diffusion Theory	The researchers, by using revised technology acceptance model and innovation diffusion theory, studied the m-commerce adoption factor in Indian context by including perceived cost, risk, compatibility, perceived ease of use and usefulness and found that except cost all the variables have a positive influence on behavioural intention towards m-commerce.
81	Tyrvaenen and Karjaluo (2019)	A systematic literature review and analysis of mobile retailing adoption	Systematic literature review studies on the adoption of m-commerce revealed that consumers first seek out time-saving benefits and individualised offerings (Morosan and DeFranco 2016). Consumers consider cost with accessibility and customised information at the following stage, despite privacy concerns hanging over their heads (Huang et al., 2016). In the final stage of adoption, customers focus on familiarity and search for perceived enjoyment (Yang 2010).

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82	Sarkar, Chauhan & Khare (2020).	A meta-analysis of antecedents and consequences of trust in mobile commerce	The results showed that trust antecedents include perceived usefulness and ease of use, system quality, information quality and service quality, user interface, structural assurance, perceived risk, ubiquity, perceived security and disposition to trust, while trust consequences include attitude, behavioural intention, user satisfaction and loyalty. All of these have a significant and positive relationship with trust in m-commerce. All relationships except perceived ease of use, trust, and attitude were modified by culture.
83	Cui, Mou, Cohen, Liu, & Kurcz (2020).	Understanding consumer intentions toward cross-border m-commerce usage: A psychological distance and commitment-trust perspective	Studied factors influencing user adoption Cross-border m-commerce by combining psychological distance theory and commitment-trust theory and have identified seven key factors namely, mobile exclusive distance, social distance, communication, opportunistic behaviour, satisfaction, investment size and relationship benefit associated with users' trust and sense of commitment.
84	Pandey& Chawla (2020).	Exploring factors that drive adoption of various categories of m-commerce: An emerging market study.	Performance expectancy, personal innovativeness, effort expectancy, facilitating conditions, social influence, perceived enjoyment, and perceived risk on adoption of different M-commerce categories in India were studied. Structured equation modelling (SEM) data showed that effort expectancy, perceived enjoyment, performance expectancy, facilitating conditions, and perceived risk have varied impacts on adoption, social influence has a big positive impact, and personal innovativeness has a major indirect impact.
85	Chen, Su & Carpenter (2020)	Impacts of situational factors on consumers' adoption of mobile payment services: A decision-biases perspective.	Conducted a study on situational factors viz., purchase intention and time pressure on adoption of Mobile payment service and found that Mobile payment service adoption behaviour is a result of interactions between Mobile payment service characteristics and situational factors.
86	Bailey, Pentina, Mishra & Ben Mimoun (2020).	Exploring factors influencing US millennial consumers' use of tap-and-go payment technology	Studied factors affecting B2C m-payment adoption among US millennials by using extended technology acceptance model (TAM). The results revealed that perceived usefulness, risk perception and perceived ease of use influence consumers' attitude towards adopting m-payment. Attitude, system trust and socio-cultural influences influence their adoption intention.
87	Singh and Sinha (2020)	How perceived trust mediates merchant's intention to use a mobile wallet technology	Studied merchants' mobile wallet intentions. The study comprises perceived compatibility, perceived utility, awareness, perceived cost, perceived customer value addition, and perceived trust. The study also evaluated the mediating effect of perceived trust on merchant intention. Perceived consumer value addition had the greatest impact on merchants' intentions, followed by perceived technology usefulness. Small but significant, the hypothesised mediation impact of perceived trust on perceived usefulness was also found.

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88	McLean et al. (2020)	Examining consumer attitudes towards retailers'-commerce mobile applications– An initial adoption vs. continuous use perspective	The researchers' longitudinal study provides empirical understanding into the factors influencing consumer perceptions of retailers' m-commerce applications (apps). According to the results, there are significant differences in the variables affecting users' opinions of the mobile commerce app during the initial adoption phase and during the usage phase. The research also asserts that over time, favourable attitudes and brand loyalty are linked to higher app purchase frequency and positive opinions regarding the app (after the usage phase). The results also showed how smartphone screen size affects consumer attitudes and behaviours.
89	Chopdar and Balakrishnan (2020)	Consumers response towards mobile commerce applications: SOR approach	Used the S-O-R theoretical framework to undertake research in India. Perceived ubiquity and m-commerce app incentives are the largest predictors of impulsiveness and perceived value, respectively, according to data analysed using structural equation modelling. It was also found that impulsiveness has a negative effect on customers repurchase intention but has a favourable effect on consumers' satisfaction with the experience, whereas perceived value has a positive effect on both variables.
90	Singh and Srivastava (2020)	Exploring the moderating role of product type in Indian m-commerce fashion and electronics market	Studied Indian electronics and fashion to see how people reacted to smartphone shopping. Structural equation modelling revealed the importance of perceived utility, risk, and self-efficacy for long-term use. Additionally, the results showed that product type had a moderate impact on two relationships: the association between perceived risk and purchase intention and the relationship between perceived self-efficacy and purchase intention.
91	Abdallah et al. (2020)	Determinants of m-commerce adoption: An empirical study	By extending TAM, researcher conducted a study to identify the important factors influencing the acceptance of M-commerce among higher education students in Palestine. According to the investigation using structural equation modelling (SEM), perceptions of usefulness, usability, staff innovation, perceived ease of use, security and privacy, subjective norms, and perceived trust are all found to have a significant impact on customer behaviour intentions to adopt mobile commerce.
92	Ntsafack Dongmo (2020)	Mobile Commerce Adoption in a Developing Country: Driving Factors in the Case of Cameroon	By using a quantitative approach analysis based on the PLS-SEM algorithm, studied the factors predicting the consumer's intention to adopt m-commerce in Cameroon and found that the variety of services, social influence, and perceived cost significantly influence behavioural intention, and as a result, the consumer intention to adopt m-commerce.
93	Al-Khalaf and Choe (2020)	Increasing customer trust towards mobile commerce in a multicultural society: A case of Qatar	Using the TAM, researchers examined Qatari customers' trust in mobile commerce. Perceived usability indirectly increased the trust of Qatari nationals, female consumers, and young consumers thanks to peer endorsements. The studies also revealed the impact of consumers' security views in mobile commerce trust among all demographics.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
94	Al-Saedi et al. (2020)	Developing a general extended UTAUT model for M-payment adoption	In a study on the adoption of mobile payments (M-payments), researcher extended the Unified Theory of Acceptance and Use of Technology (UTAUT). According to the findings, performance expectancy, followed by social influence, effort expectancy, perceived trust, perceived cost, and self-efficacy, is the best predictor of M-payment users' intention to utilise the system. Nevertheless, it was discovered that perceived risk had a negligible impact on behavioural intentions to use M-payment systems.
95	Al-Naimat et al. (2020)	Determinants of m-commerce usage in the Jordanian hospitality industry	Investigated the critical mobile commerce adoption factors in the Tourist and Hospitality industries and the results showed that perceived convenience, perceived usefulness, system quality, and service quality are the key predictors of m-commerce adoption.
96	Dakduk, Santalla-Banderali, and Siqueira (2020)	Acceptance of mobile commerce in low-income consumers: evidence from an emerging economy	By incorporating the trust and perceived security components into the original unified theory of acceptance and use of technology (UTAUT2) model, the study evaluated low-income consumers' intentions to adopt mobile commerce in Ecuador. According to the findings, enabling factors, hedonistic drive, habit, and perceived trust significantly and favourably impact desire to utilise mobile commerce. Facilitating conditions were the best predictor, followed by perceived trust. Contrary to expectations, the inclination of low-income customers to use m-commerce was not significantly influenced by performance expectations, social influence, or perceived security.
97	Pipitwanichakarn and Wongtada (2020)	The role online review on mobile commerce adoption: an inclusive growth context	Executed an experimental study to learn more about the prevalence of m-commerce among street vendors. The primary objective was to look into how users' opinions and other factors affect their enthusiasm for and use of mobile commerce. The researcher divided participants into eight separate groups, then adjusted the number of reviews they read before measuring the participants' impressions of the site's usability and reliability. When consumers have contradictory impressions (high ease of use but low trust, for example), positive reviews can sway their opinion of m-value. To the contrary, if users receive congruent information, there is no difference in perceived utility based on online ratings (e.g. high ease of use and high trust).
98	Gharaibeh et al. (2020)	Exploring intention to adopt mobile commerce: Integrating UTAUT2 with social media	Consumer anticipation and intention to adopt mobile commerce in Jordan was studied. This study extends the UTAUT2 model by using social media as a new variable. The findings revealed that the intention of Jordanian consumers to adopt mobile commerce is highly affected by factors including social media use, social influence, effort expectation, hedonic incentive, performance expectancy, habit, and facilitating conditions. Similarly, there is little to no correlation between price and willingness to use.

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99	Molina-Castillo (2020)	The customer retail app experience: Implications for customer loyalty	The research study examines how mobile payment learning costs affect user intentions. The researcher also analysed how perceived functional value and enabling environments moderate learning costs. The researcher discovered that perceived functional value and enabling factors fully mediate negative learning cost effects. Diverse mobile payment services, platforms, and technologies increase user learning costs, slowing consumer adoption.
100	Wang, Teo, and Liu (2020)	Perceived value and continuance intention in mobile government service in China	Executed research on mobile government service in China. Mobility, localizability, and personalisation are positively connected with perceived value and continuing intention. Perceived value modulates the links between mobility, personalisation, localizability, and continuance intention. Compatibility moderates the relationship between perceived value, mobility, localizability, security (but not personalisation), and continuation intention. Personalization and security appear to be at odds (analogous to personalization-privacy paradox where users are torn between their desire for personalization and their instinct to protect their privacy).
101	Tseng and Wei (2020)	The efficiency of mobile media richness across different stages of online consumer behaviour	Studied media richness' impact on consumer behaviour at different AISAS (attention, interest, search, action, and share) phases. This study proposes employing rich media for early-stage mobile customers. for 1 Later-stage customers, marketers can use mobile ads. Mobile ads with high media richness are more successful for high perceived risk products, thus firms must use high richness media even when potential consumers are in the later stage.
102	Msweli and Mawela (2020)	Enablers and barriers for mobile commerce and banking services among the elderly in developing countries: a systematic review	Performed a systematic literature review to understand the facilitators and impediments to older people in developing nations using mobile for banking services. Security issues, trust and privacy issues, a lack of personalisation, and the elderly's inadequate technological expertise are among the key challenges mentioned in the literature. Considerable facilitators include perceived value, consumer attitudes, perceived value of mobile banking applications, and perceived convenience.
103	Nabipour Sanjebad, Shrestha, and Shahid (2020)	The Impact of Personality Traits Towards the Intention to Adopt Mobile Learning.	Using an extended version of the technology acceptance model (TAM) theory that incorporates variables of personality traits like perceived enjoyment and computer self-efficiency, the researchers have conducted a study among Malaysian university students to identify the extrinsic influential factors for the adoption of mobile learning. The study discovered that perceived usefulness, an extrinsic factor, had the greatest impact on students' desire to adopt mobile learning. Perceived satisfaction and self-efficacy are personality traits that affect behaviour intention to adopt mobile learning.

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104	Shah et al. (2020)	Customers' perceived value and dining choice through mobile apps in Indonesia	Using the stimulus-organism-response (SOR) paradigm and mixed techniques, researchers studied the effects of mobile dining on Indonesian consumers' values and purchase decisions. Restaurant type is also a moderator. Study data were analysed using SEM. The navigation system, meal quality, service quality, and review valence all affect consumer value ratings. Customers' perception of a product's value affects their likelihood to buy. Different types of restaurants influence review valence, navigation ease, meal quality, and service quality differently.
105	Nayal and Pandey (2020)	Framework for measuring usage intention of digital coupons: A SPADM approach Framework for measuring usage intention of digital coupons: A SPADM approach	By evaluating the existing literature and speaking with subject-matter experts, created a framework for assessing the utilisation intention of digital coupons. The framework emphasises that the main factors affecting the intention to use digital coupons are search intention, coupon proneness, and perceived coupon value.
106	Talwar et al. (2020)	Point of adoption and beyond. Initial trust and mobile-payment continuation intention	Studied the effect of initial trust on mobile-payment continuation. The present study integrated the Information Systems Success (ISS) model, Transaction Cost Economics (TCE) theory, and the IT Continuance Model to propose a two-step framework that includes pre-adoption factors like initial trust and post-adoption factors like confirmation, perceived usefulness, satisfaction, and continuation intention toward mobile-based payments. The framework is tested using cross-sectional data from first-time mobile-wallet users. Information and service quality significantly affect initial trust, which positively affects confirmation and perceived utility. A positive correlation between perceived usefulness and continuance intention was also seen in the results.
107	Tiwari and Tiwari (2020)	Integration of technology acceptance model with perceived risk, perceived trust and perceived cost: Customers' adoption of m-banking	To investigate the factors influencing actual usage of m-banking adoption, conducted a study using extended TAM (Technology Acceptance Model) constructs with perceived risk, perceived trust, and perceived financial cost. The results showed that perceived usefulness, perceived ease of use, perceived risk, and perceived trust found to be significant in adoption of m-banking adoption. The adoption of mobile banking was not significantly related to perceived cost.
108	Kaur et al. (2020)	An innovation resistance theory perspective on mobile payment solutions	Based on the Innovation Resistance Theory (IRT), did a study to examine the acceptance and use of mobile payment solutions (MPSs). The results of the study show that usage barriers, risk barriers, and value barriers all make people less likely to use MPSs. On the other hand, users are less likely to recommend MPSs when usage and value barriers are present. Tradition and image barriers, on the other hand, had nothing to do with what the user wanted.

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109	Talwar et al. (2021)	Point of adoption and beyond. Initial trust and mobile-payment continuation intention	Explored enablers and inhibitors of mobile wallets (m-wallets) as word-of-mouth antecedents (positive and negative; PWOM and NWOM, respectively). This study examines consumers' continuing use intentions based on WOM valence using Dual Factor Theory. Perceived information quality, ability, and benefit drive PWOM, while cost, risk, and uncertainty drive NWOM. Moreover, only PWOM drives m-wallet customers' retention intentions. The study shows that PWOM antecedents differ from NWOM.
110	Ashraf et al.(2021)	Perceived values and motivations influencing m-commerce use: A nine-country comparative study	Conducted cross-national research on m-retailing by examining how value dimensions influence m-shoppers' motivations, analysing the differential effects of hedonic and utilitarian motivations on intention and habit, and examining the competing roles of conscious (intentional) and unconscious (habitual) m-commerce use drivers across developed and developing nations. Based on data collected from m-shoppers in nine countries across four continents (Australia, Bangladesh, Brazil, India, Pakistan, Singapore, the United Kingdom, and the United States), the results demonstrate differential relationships: consumers at an advanced (early) readiness stage are more likely to be hedonism-motivated (utility-motivated) when using m-commerce and tend to use it intentionally/consciously.
111	Malik and Annuar (2021)	The effect of perceived usefulness, perceived ease of use, reward, and perceived risk toward e-wallet usage intention	Investigated the elements influencing consumers' intentions toward using electronic wallets, particularly among young people. The variables being utilised to determine the links with customers' intentions to use e-wallets in Malaysia include perceived usefulness, perceived ease of use, perceived risk, and perceived reward. To build the conceptual framework, the technology acceptance model (TAM) was used. The findings demonstrate a direct relationship between perceived utility, perceived ease of use, and perceived reward and intention to use an electronic wallet. Perceived risk does not, however, directly influence one's inclination to use an electronic wallet.
112	Omar et al. (2021)	M-commerce: The nexus between mobile shopping service quality and loyalty	The effect of mobile shopping service quality on customer satisfaction and loyalty in the UK fashion clothing business has been researched. Efficiency, fulfilment, responsiveness, and contact are the four elements of mobile shopping service quality that the study supported. The quality of mobile shopping services has a substantial impact on client satisfaction, which in turn affects loyalty, according to SEM results. When controlling for gender, age, income, the cost of the clothing item, and m-shopping experience, only the dimension efficiency shows a direct effect on loyalty via satisfaction.

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113	Siji and Nelson (2021)	Consumer Attitudes toward Mobile Advertising in India: The Role of Personalization	Conducted a study with the aim of examining the variables that influence consumers' attitudes toward mobile advertising in India, with a focus on personalisation. Regression and SEM analysis results showed that personalisation, entertainment, irritability, and informativeness have a considerable impact on attitude, which in turn has an impact on the intention to buy. Credibility, however, was shown to have no discernible effect on attitude.
114	Anwar, Thongpapanl, & Ashraf (2021)	Strategic imperatives of mobile commerce in developing countries: the influence of consumer innovativeness, ubiquity, perceived value, risk, and cost on usage	The researcher used ubiquity, perceived cost and perceived risk (financial and performance risk) as antecedents of perceived value and also explored the moderating role of consumer innovativeness, the results revealed that ubiquity positively affects value, whereas risk and cost exert negative influence. Innovativeness moderates the relationships between identified antecedents and value and the value positively affects actual usage which is further strengthened by consumer innovativeness.
115	Manchanda & Deb(2021).	On m-commerce adoption and augmented reality: A study on apparel buying using m-commerce in Indian context.	Studied the effect of augmented reality (AR) and anthropomorphism on consumers' attitudes and intention to adopt m-commerce, the result showed that anthropomorphizing of AR-mediated m-commerce significantly and positively affects confidence of consumers and their perception towards innovativeness as well as influence subjective norms also which in-turn positively affect the attitude toward AR-mediated m-commerce which leads to m-commerce adoption.
116	Wan et al. (2021)	What's Stopping You from Migrating to Mobile Tourism Shopping?	Mobile tourist shopping (MTS) antecedents were explored utilising Technology Acceptance Model, consumer perception of merchant ethics, consumer decision-making styles, and mobile application characteristics. Empirically validating results with PLS-SEM-ANN. Privacy concerns exhibited a strong negative relationship with the desire to use MTS, although mobile usefulness, mobile simplicity of use, application quality, and service quality had favourable relationships. Source credibility, app reputation, perfectionism, and novelty-fashion awareness had little impact on MTS adoption intention.
117	Manchanda, Deb, and Lomo-David (2021)	Scrutinizing the efficacy of branded apps quality to counter counterfeiting and restore trust in M-Commerce	Branded app quality resists counterfeit dishonesty and builds confidence in an expanding market. Information, system, and service quality of branded apps effect perceived counterfeit deception and user trust in the supplier. System and service quality affect counterfeit deception more than trust, although information quality affects trust more. In the context of counterfeiting, high-quality information and services are sales enablers and sale qualifiers.



<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
118	Verma, Tripathi, and Singh (2021)	From physical to digital: what drives generation Z for mobile commerce adoption?	In order to understand generation Z's intention to adopt m-commerce among university students in Northern India, the research study used a modified version of the TPB model. The study's findings revealed that all three independent constructs, namely subjective norm, attitude, and perceived behavioural control, have a positive influence on generation Z's behavioural intention to adopt m-commerce. In addition, when compared to the female subgroup, the male subgroup has a lower beta value for attitude and a greater beta value for subjective norm. There was no discernible difference in beta value across gender for perceived behavioural control.
119	Yang, Tang and Zheng (2021)	Consumer perceived value and impulse buying behaviour on mobile commerce: The moderating effect of social influence	Researchers in China studied how customers' perceived values (utilitarian and hedonic) affect Impulse buying (IBB). The researchers also hypothesised that interpersonal influence moderates the relationship between customers' valuation and intention to buy. Customers' perceptions of hedonic value affect their IBB, while external inputs alter their utilitarian value perceptions. Perceived hedonic value and interpersonal influence combine to affect IBB. Furthermore, IBB is highly impacted by the interaction effect of perceived hedonic value and interpersonal influence.
120	Varzaru et al. (2021)	Assessing antecedents of behavioural intention to use mobile technologies in e-commerce	Employed a modified version of the technology acceptance model to look at the influence of antecedents on m-commerce consumers' behavioural intentions (BI) and the part that satisfaction plays in the purchase decision-making process. Structural equation modelling and cross-tabulation of the collected data confirmed that PU and PEU positively affect BI. Satisfaction has a major influence in the adoption of m-commerce and has a favourable effect on the intention to use the service in the future. The findings also revealed significant generational and gender disparities in behavioural intention, with the younger generation and male respondents being more likely to engage in m-commerce.
121	Sankaran and Chakraborty (2021)	Factors impacting mobile banking in India: Empirical approach extending UTAUT2 with perceived value and trust	Conducted a study to determine the variables influencing Indian customers' use of mobile banking. The research uses the Extended Unified Theory of Acceptance and Use of Technology (UTAUT2), which incorporates the moderating effects of gender along with Social Value, Monetary Value, Emotional Value, Quality Value and Trust. The conceptual model was experimentally validated using SPSS AMOS, which was also used to assess the study hypothesis and the moderating impact. Performance expectancy and social value were not shown to be significant determinants in behavioural intent, but effort expectancy, monetary value, emotional value, quality value, and trust were.

Sr. No	Author/s (year)	Title of the Research paper	Major observations/ Findings
122	Uzir et al. (2021)	The effects of service quality, perceived value and trust in home delivery service personnel on customer satisfaction: Evidence from a developing country	Executed a study in Bangladesh to look into how customer satisfaction is affected by the service quality of home delivery staff and perceived value, with trust playing an intermediary role. Partial least square structural equation modelling (PLS-SEM) with the Smart PLS tool was used to analyse the conceptual model, and the results showed that service quality, customer perceived value, and trust affected customer happiness. Trust served as a partial mediator in the relationships between service quality and customer satisfaction as well as between perceived value and contentment. By extending the SERVQUAL model to include perceived value in the presence of trust and adhering to expectation disconfirmation theory, the findings help to construct and validate a trust-based satisfaction model.
123	Himel et al. (2021)	Users' attitude and intention to use mobile financial services in Bangladesh: an empirical study	In order to learn more about Bangladeshi consumers' views toward and intentions to use Mobile Financial Services (MFS) performed a study by the researchers. Partial least squares (PLS) path modelling was used for data analysis. To validate the findings, this research combined the Innovation Resistance Theory (IRT) and the Technological Acceptance Model (TAM). The authors discovered that customers' opinions regarding the adoption of MFS are positively influenced by perceived usefulness (PU), perceived ease of use (PEOU), and perceived trust (PT). Furthermore, acceptance barriers had a negative impact on consumers' attitudes and usage intentions.
124	Wu and Ho (2021)	The influences of technological characteristics and user beliefs on customers' perceptions of live chat usage in mobile banking	Technology aspects and user attitudes influenced customer views of live chat in mobile banking in Taiwan. A research model integrating three mobile chat technological features (mobility, reachability, and convenience) with user views about performance, effort, and facilitating conditions was created. Attitude altered the relationship between intention and forecasts. The proposed model was evaluated using m-banking user data. Reachability and convenience affect performance expectations, while technical aspects affect effort expectations. Customers' attitudes depend on user perceptions, effort expectancy, and enabling factors.
125	Rialti et al. (2022)	Assessing the relationship between gamified advertising and in-app purchases: a consumers' benefits-based perspective	Explored gamified advertising and in-app purchases using Use and Gratification Theory (UGT) and Theory of Planned Behaviour (TPB). The focus was on how Gamified Advertising (GAMEX) could contribute to consumers' benefits, attitude and intention to purchase using a mobile app. The data tested using a structural model indicated how gamification-induced experiences can boost in-app purchases. Perceived consumer benefits, advertising attitude, and advertising effectiveness influence this relationship. Gamified advertising can be effective if it fosters social, personal, hedonic, and cognitive benefits and is viewed cohesive with the promoted product/brand pair.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
126	Kalinic et al. (2021)	Neural network modelling of consumer satisfaction in mobile commerce: An empirical analysis	The important predictors of satisfaction in m-commerce were researched. The findings, which were based on a combination of structural equation modelling (SEM) and artificial neural network (ANN) analysis, showed that trust and mobility were the most important factors in m-commerce that affected consumer satisfaction.
127	Farzin et al. (2021)	Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter?	Using the unified theory of acceptance and use of technology 2 (UTAUT2) in Iran, the researchers looked at the key elements that contribute to the behavioural intentions of customers to use mobile banking. Results point to a number of factors as supporters of M-banking adoption intention, including performance expectancy, effort expectancy, social influence, facilitating conditions, habit, hedonic incentive, perceived value, and trialability. M-banking adoption intention also positively affects actual use and word-of-mouth (WOM). WOM has influenced real usage behaviour and mediated M-banking adoption intention and actual use.
128	Tseng, Lee, Huang, and Yang (2021)	Success factors driving consumer reuse intention of mobile shopping application channel	e-Commerce systems success (ESS) model, sales promotion benefits, and parasocial interaction literatures were used to examine mobile shopping app consumer reuse intention. The results suggest the usefulness of the ESS model in predicting customers' reuse intention of mobile shopping apps, where three quality characteristics of system, information, and service facilitate perceived value and user satisfaction, which creates reuse intention. Savings and entertainment, utilitarian and hedonic sales promotion benefits, boost perceived value but not satisfaction. Parasocial intention between buyers and suppliers boosts satisfaction and value perception.
129	Vinerean et al. (2022)	Assessing the Effects of the COVID-19 Pandemic on M-Commerce Adoption: An Adapted UTAUT2 Approach	In the expanding Romanian market, which has the fourth-fastest internet speed in the world, did a study on the impact of the COVID-19 pandemic on customers' shopping habits and their behavioural intention to rely on mobile commerce. The research verifies the applicability of UTAUT2 in evaluating customers' behavioural intent to use mobile commerce during a pandemic by utilising confirmatory factor analysis and structural equation modelling. The best indicator of whether consumers will continue to use mobile commerce is hedonic motivation.
130	Su et al. (2022)	Modelling consumers' trust in mobile food delivery apps: perspectives of technology acceptance model, mobile service quality and personalization-privacy theory	Examined how TAM factors, M-SERQUAL components, personalization, and privacy affect customers' trust and loyalty to mobile food delivery apps (MFDAs) by using PLS-SEM. TAM (ease of use and perceived utility), M-SERQUAL (interface, interaction, and information quality), and personalization strongly connected with consumer trust in MFDAs, which positively correlated with customer loyalty. TAM, M-SERQUAL, and personalization affect client loyalty through trust. Privacy and consumer loyalty weren't mediated by trust.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
131	Wen et al. (2022)	An Integrated Model of Continued M-Commerce Applications Usage	Developed an integrated model to investigate what factors contribute to consumers' on-going engagement with m-commerce apps by drawing from the existing literature on consumer behaviours in the context of mobile commerce (m-commerce) and integrating expectation confirmation theory and motivation theory . PLS-SEM analysis of the data reveals three broad classes of motivators, each with numerous dimensions, that significantly impact confirmation of utilitarian and hedonic expectations, respectively. The confirmation of utilitarian expectations is positively affected by extrinsic value (i.e., convenience, efficiency, and informativeness), hedonic expectations are positively affected by intrinsic value (i.e., value motivation, role motivation, adventure motivation, gratification motivation, and idea motivation), and social value (i.e., social motivation, subjective norm, and critical mass) is positively affected by confirmation of both utilitarian and hedonic expectations.
132	Japutra et al. (2022)	Exploring the effect of relative advantage and challenge on customer engagement behaviour with mobile commerce applications	Using the stimulus (S), organism (O), and response (R) framework, investigated the factors that influence customer engagement behaviour with mobile commerce applications (m-commerce apps). Four aspects are used to construct customer engagement: co-developing, influencing, enhancing, and mobilising behaviour. According to this study, perceived difficulty and relative advantage have a favourable impact on customers' sense of enjoyment and control, which raises their level of engagement. The relationship between perceived relative advantage, perceived challenge, and three customer engagement aspects was also found to be mediated by customers' perceived enjoyment (i.e., co-developing, influencing, and mobilising behaviour).
133	Chan et al. (2022)	Predicting the Intention and Adoption of Mobile Shopping During the COVID-19 Lockdown in Malaysia	The intention and adoption of mobile shopping among Malaysian customers were studied in relation to ubiquitous connection, service quality, system quality, perceived utility, perceived ease of use, and perceived enjoyment. The results showed that customers' behavioural intention to adopt mobile shopping was significantly and positively influenced by ubiquitous connectivity, perceived utility, perceived ease of use, and perceived enjoyment, however service quality and system quality had little bearing on their adoption intention. The findings showed that during the COVID-19 lockdown, customer behavioural intention had a more substantial impact on the adoption of mobile commerce. The results also showed that the link between ubiquitous connectivity, perceived usefulness, ease of use, and enjoyment on the adoption of mobile shopping was mediated by intention to adopt mobile shopping.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
134	Lim et al (2022)	M-commerce adoption among youths in Malaysia: Dataset article	An investigation into how the COVID-19 epidemic has affected Malaysian youth's adoption of mobile commerce was conducted. The information has shown the connections between perceived utility, perceived ubiquity, perceived usability, perceived enjoyment, and propensity to adopt mobile commerce. The model's inclusion of perceived enjoyment as a mediator gave m-commerce service providers insight into the significance of perceived enjoyment among young people.
135	Yu and Huang's (2022)	Why do people play games on mobile commerce platforms? An empirical study on the influence of gamification on purchase intention	Research examined users' desire to play games on mobile commerce platforms as well as how gamification techniques affect users' desire to make purchases via mobile platform. This study's foundation was the perceived value theory, and a structural equation model was used to evaluate the data. According to the study's findings, utilitarian value, hedonistic value, and social value are all positively connected with game use intention, and investing less time or effort has a similar beneficial impact. Women are more drawn to these games. Users' intentions to make purchases on a mobile commerce platform are positively connected with the usage rate of games and the average monthly spending amount on the site.
136	Tripathi, Srivastava, and Vishnani (2022)	Mobile wallets: achieving intention to recommend by brick-and-mortar retailers	Used extended TRA with "intention to recommend" as a logical consequence of "usage intention" for mobile wallets and the study was done among brick-and-mortar shops to evaluate the antecedents as well as effects of utilising mobile wallets. The model includes attitudes and subjective norms that influence how useful people perceive mobile wallets to be and how likely they are to utilise them. Additionally, it shows that perceptions of cost and trust have opposite effects on users' intentions to use mobile wallets. Results show that users' propensity to promote mobile wallets is positively impacted by their intention to use.
137	Asampana, Akanferi, Matey, and Tanye (2022)	Adoption of Mobile Commerce Services Among Artisans in Developing Countries	Examined how Ghanaian artisans are integrating mobile commerce into their day-to-day operations and how age, gender, expertise, and educational level affected their decision to adopt and use m-commerce. They also examined how perceived usefulness, perceived ease of use, and subjective norms affected their decision. Age, educational attainment, perceived usefulness, expertise, attitude, and behavioural intention all demonstrated significant effects on the adoption of mobile commerce, with the exception of gender, perceived ease of use, and subjective norms, which did not.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
138	Lee and Chen (2022)	Exploring users' adoption intentions in the evolution of artificial intelligence mobile banking applications: the intelligent and anthropomorphic perspectives.	As banks have embraced artificial intelligence (AI) tools to further the development of mobile banking applications, the researcher investigated users' adoption intentions for those applications (apps). Perceived intelligence and anthropomorphism are two AI characteristic constructs that are taken into consideration as stimuli under the stimulus-organism-response (SOR) theory. The study then created a research model to examine how task-technology fit (TTF), perceived cost, perceived risk, and trust (organism), which in turn influence consumers' adoption of AI mobile banking apps, are impacted by intelligence and anthropomorphism (response). Data investigation using the partial least squares method revealed that anthropomorphism and intelligence increase consumers' propensity to embrace mobile banking apps through task-technology fit (TTF) and trust. However, more anthropomorphism raises the perceived cost for users. Additionally, there are negligible impacts of IQ and anthropomorphism on perceived risk.
139	Tupikovskaja-Omovie and Tyler (2022)	Experienced versus inexperienced mobile users: eye tracking fashion consumers' shopping behaviour on smartphones	Conducted a study to compare experienced and novice smartphone shoppers by using Mixed-methods research involving eye-tracking and interviews. Comparing experienced and new customers revealed considerable disparities in shopping journey length, website utilisation, and problem areas. Users with less experience have higher expectations of a fashion retailer's website. User experience research and participant recruiting consider mobile consumers' prior use of businesses' digital buying platforms. This research can be used to evaluate current and potential customers' behaviour and to generate personalised shopping experiences on smartphones by feeding them into merchants' digital analytics database and marketing plan.
140	Molinillo et al., (2022)	Mobile payment: The hiding impact of learning costs on user intentions	Young adults use mobile shopping for entertainment and a study of relevance of word-of-mouth on m-shopping revealed that perceived entertainment is the deciding factor among young people and subjective norms are more decisive for adults
141	Lim et al. (2022).	M-commerce adoption among youths in Malaysia: Dataset article	The intention of Malaysian youth to adopt m-Commerce has been investigated. The information demonstrates the connections between perceived utility, perceived ubiquity, perceived usability, perceived enjoyment, and intention to adopt mobile commerce. M-commerce service providers can better comprehend the significance of perceived enjoyment among young people thanks to the role of perceived enjoyment as a mediator in the model.

<b>Sr. No</b>	<b>Author/s (year)</b>	<b>Title of the Research paper</b>	<b>Major observations/ Findings</b>
142	Sarosa (2022)	The effect of perceived risks and perceived cost on using online learning by high school students	Using the Theory of Planned Behaviour extended with Perceived Risks (security-related) and Perceived Costs (cost to access the internet and cost to acquire equipment) as the theoretical framework, the researcher conducted a study among high school students to understand their behaviour in using online learning during the Covid19 Pandemic. Although perceived risks are thought to be a factor, its influence is rather small. Online learning is not affected by perceived costs.
143	Parker and Lee (2022)	Rethinking fashion m-commerce's consumer profiles: attitudes, motivations, and demographics	In order to create engaging retail apps, designers need to have a firm grasp on what motivates shoppers, the researchers used statistical analysis to determine if m-Commerce attitude or motivation are more important than age and gender. Two-step cluster analysis reveals two groups based on attitude and motivation, and binomial logistic regression determines their shopping motivations. Age and gender have little impact on multichannel retail or app design. The researchers recommend avoiding gender preconceptions, designing apps based on attitude and motivation, and prioritising convenience over brand enthusiasm.
144	Ertz (2022)	Predicting m-shopping in the two largest m-commerce markets: The United States and China	Investigated what influences Chinese and American customers to make purchases using mobile devices. The author proposed, drawing on the hedonic-motivation system adoption model (HMSAM), that ease of use influences m-shopping intentions via utility, enjoyment, and self-efficacy. Perceived usefulness, an extrinsic motivator, was found to have a direct effect on Chinese consumers' behavioural intentions and this effect was found to be substantially stronger and reinforced by an indirect effect for the Chinese (compared to American) customers. In contrast, perceived ease of use has a much less effect on intentions in the consumer market than it does in the business sector, and intrinsic incentives like joy and control are irrelevant in both. The intention to engage in m-commerce is only indirectly influenced by feelings of happiness, and only among Chinese customers.
145	Misra, Mahajan & Singh (2022)	Analysis of Factors Affecting Intent to Use Mobile Commerce Services in India	The researcher has sought to uncover the essential elements affecting m-commerce transaction decisions and explaining their relevance by employing UTAUT model dimensions in three specific areas: m-banking, m-ticketing, and m-shopping. Structured equation modelling was applied to analyse the causal connection between variables. The study revealed Perceived Expectancy and Effort Expectancy as the variables with highest impact; second is social influences on user's behavioural intention to utilise m-commerce services.

**ANNEXURE-FOUR: DETAILS OF RESPONSES AND PERCENTAGES**

**Table 5.10: Selected Users' Response Regarding Product Brought Through Mobile**

<b>Products bought through mobile</b>	<b>Yes / No</b>	<b>Vadodara</b>	<b>Ahmedabad</b>	<b>Surat</b>	<b>Rajkot</b>	<b>Gujarat State</b>
Mobile and Computer	Yes	133 (45.9)	253 (50.6)	190 (44.7)	133 (50.2)	709 (47.9)
	No	157 (54.1)	247 (49.4)	235(55.3)	132(49.8)	771(52.1)
Clothes	Yes	85(29.3)	163(32.6)	140(32.9)	55(20.8)	443(29.9)
	No	205(70.7)	337(67.4)	285(67.1)	210(79.2)	1037(70.1)
Foot ware	Yes	49(16.9)	96(19.2)	87(20.5)	60(22.6)	292(19.7)
	No	241(83.1)	404(80.8)	338(79.5)	205(77.4)	1188(80.3)
Fashion	Yes	85(29.3)	143(28.6)	115(27.1)	64(24.2)	407(27.5)
	No	205(70.7)	357(71.4)	310(72.9)	201(75.8)	1073(72.5)
Flower & Gifts	Yes	6 (2.1)	17(3.4)	13(3.1)	8(3.0)	44(3.0)
	No	284(97.9)	483(96.6)	412(96.9)	257(97.0)	1436(97.0)
Home Appliances	Yes	29 (10.0)	68(13.6)	47(11.1)	22(8.3)	166(11.2)
	No	261(90.0)	432(86.4)	378(88.9)	243(91.7)	1314(88.8)
Furniture	No	290(100)	500(100)	425(100)	265(100)	1480(100)
Electronic Items	Yes	149(51.4)	263(52.6)	222(52.2)	141(53.2)	775(52.4)
	No	141(48.6)	237(47.4)	203(47.8)	124(46.8)	705(47.6)
Bags, Luggage	Yes	114(39.3)	262(52.4)	204(48.0)	111(41.9)	691(46.7)
	No	176(60.7)	238(47.6)	221(52.0)	154(58.1)	789(53.3)
Travel Tickets	Yes	133(45.9)	216(43.2)	183(43.1)	114(43.0)	646(43.6)
	No	157(54.1)	284(56.8)	242(56.9)	151(57.0)	834(56.4)
Movie Tickets	Yes	135(46.6)	222(44.4)	194(45.6)	122(46.0)	673(45.5)
	No	155(53.4)	278(55.6)	231(54.4)	143(54.0)	807(54.5)
Hotel Booking	Yes	138(47.6)	243(48.6)	198(46.6)	129(48.7)	708(47.8)
	No	152(52.4)	257(51.4)	227(53.4)	136(51.3)	772(52.2)
Education	Yes	3(1.0)	3(0.6)	3(0.7)	4(1.5)	13(0.9)
	No	287(99.0)	497(99.4)	422(99.3)	261(98.5)	1467(99.1)
Trading	No	290(100)	500(100)	425(100)	265(100)	1480(100)
Fund Transfer	Yes	17(5.9)	21(4.2)	24(5.6)	12(4.5)	74(5.0)
	No	273(94.1)	479(95.8)	401(94.4)	253(95.5)	1406(95.0)



<b>Products bought through mobile</b>	<b>Yes / No</b>	<b>Vadodara</b>	<b>Ahmedabad</b>	<b>Surat</b>	<b>Rajkot</b>	<b>Gujarat State</b>
Groceries	Yes	42(14.5)	99(19.8)	71(16.7)	40(15.1)	252(17.0)
	No	248(85.5)	401(80.2)	354(83.3)	225(84.9)	1228(83.0)
Baby Products	Yes	0(0.0)	9(1.8)	3(0.7)	0(0.0)	12(0.8)
	No	290 (100)	491(98.2)	422(99.3)	265(100)	1468(99.2)
Gas/Cylinder Payment	Yes	68(23.4)	184(36.8)	128(30.1)	71(26.8)	451(30.5)
	No	222(76.6)	316(63.2)	297(69.9)	194(73.2)	1029(69.5)
Electricity Bill	Yes	105(36.2)	172(34.4)	154(36.2)	93(35.1)	524(35.4)
	No	185(63.8)	328(65.6)	271(63.8)	172(64.9)	956(64.6)
Phone Bill	Yes	152(52.4)	267(53.4)	231(54.4)	150(56.6)	800(54.1)
	No	138(47.6)	233(46.6)	194(45.6)	115(43.4)	680(45.9)
Buy Books	No	290(100)	500(100)	425(100)	265(100)	1480(100)
Health & Fitness	Yes	11(3.8)	32(6.4)	24(5.6)	10(3.8)	77(5.2)
	No	279(96.2)	468(93.6)	401(94.4)	255(96.2)	1403(94.8)
Games & Sports Products	Yes	18(6.2)	25(5.0)	26(6.1)	13(4.9)	82(5.5)
	No	272(93.8)	475(95.0)	399(93.9)	252(95.1)	1398(94.5)
Taxi/Travelling	Yes	146(50.3)	230(46.0)	213(50.1)	142(53.6)	731(49.4)
	No	144(49.7)	270(54.0)	212(49.9)	123(46.4)	749(50.6)
Food	Yes	142(49.0)	249(49.8)	216(50.8)	131(49.4)	738(49.9)
	No	148(51.0)	251(50.2)	209(49.2)	134(50.6)	742(50.1)

**Table Number 5.11: Response Regarding the Mobile Applications used while involving in m-Commerce Transactions**  
(A=Agree, D=Disagree and U= Undecided)

MC Applications	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
	A	D	U	A	D	U	A	D	U	A	D	U	A	D	U
Amazon	159 (54.8)	131 (45.2)	131 (45.2)	250 (50.0)	250 (50.0)	250 (50.0)	237 (55.8)	188 (44.2)	188 (44.2)	137 (51.70)	128 (48.3)	128 (48.3)	783 (52.9)	697 (47.1)	697 (47.1)
Flipkart	131 (45.2)	32 (11.0)	127 (43.8)	208 (41.6)	44 (8.8)	248 (49.6)	197 (46.4)	45 (10.6)	183 (43.1)	104 (39.2)	31 (11.7)	130 (49.1)	640 (43.2)	152 (10.3)	688 (46.5)
Zomato	133 (45.9)	15 (5.2)	142 (49.0)	231 (46.2)	20 (4.0)	249 (49.8)	191 (44.9)	18 (4.2)	216 (50.8)	116 (43.8)	18 (6.8)	131 (49.4)	671 (45.3)	71 (4.8)	738 (49.9)
Dominos	86 (29.7)	12 (4.1)	10 (3.4)	199 (39.8)	14 (2.8)	15 (3.0)	135 (31.8)	24 (5.6)	22 (5.2)	68 (25.7)	16 (6.0)	11 (4.2)	488 (33.0)	66 (4.5)	58 (3.9)
Tata Cliq	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Ajio	16 (5.5)	11 (3.8)	11 (3.8)	21 (4.2)	13 (2.6)	13 (2.6)	24 (5.6)	13 (3.1)	13 (3.1)	22 (8.3)	6 (2.3)	6 (2.3)	83 (5.6)	43 (2.9)	43 (2.9)
Wish.com	06 (2.1)	06 (2.1)	06 (2.1)	04 (0.8)	04 (0.8)	04 (0.8)	05 (1.2)	05 (1.2)	05 (1.2)	05 (1.9)	05 (1.9)	05 (1.9)	20 (1.4)	20 (1.4)	20 (1.4)
Lenskart	65 (22.4)	01 (0.3)	01 (0.3)	87 (17)	01 (0.3)	01 (0.3)	94 (22.1)	02 (0.5)	02 (0.5)	63 (23.8)	04 (1.5)	04 (1.5)	309 (20.9)	08 (0.5)	08 (0.5)
Koovs	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)
Paytm Mall	188 (64.8)	100 (34.5)	02 (0.7)	363 (72.6)	136 (27.2)	01 (0.2)	277 (65.2)	145 (34.1)	03 (0.7)	164 (61.9)	101 (38.1)	00 (0.0)	992 (67.0)	482 (32.6)	06 (0.4)
Groffers	15 (5.2)	05 (1.7)	05 (1.7)	18 (3.6)	13 (2.6)	13 (2.6)	23 (5.4)	7 (1.6)	7 (1.6)	21 (7.9)	00 (0.0)	00 (0.0)	77 (5.2)	25 (1.7)	25 (1.7)
Shopclues	35 (12.1)	03 (1.0)	14 (4.8)	48 (9.6)	23 (4.6)	45 (9.0)	60 (14.1)	13 (3.1)	36 (8.5)	33 (12.5)	02 (0.8)	13 (4.9)	176 (11.9)	41 (2.8)	108 (7.3)

MC Applications	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
Snapdeal	8 (2.8)	3 (1.0)	3 (1.0)	15 (3.0)	13 (2.6)	13 (2.6)	10 (2.4)	9 (2.1)	9 (2.1)	6 (2.3)	2 (0.8)	2 (0.8)	39 (2.6)	27 (1.8)	27 (1.8)
Club Factory	20 (6.9)	14 (4.8)	14 (4.8)	20 (4.0)	30 (6.0)	30 (6.0)	19 (4.5)	26 (6.1)	26 (6.1)	12 (4.5)	13 (4.9)	13 (4.9)	71 (4.8)	83 (5.6)	83 (5.6)
Big basket	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0 (0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
eBay	59 (20.3)	04 (1.4)	04 (1.4)	59 (11.8)	07 (1.4)	07 (1.4)	68 (16.0)	08 (1.9)	08 (1.9)	58 (21.9)	02 (0.8)	02 (0.8)	244 (16.5)	21 (1.4)	21 (1.4)
Limeroad	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Bookmyshow	186 (64.1)	104 (35.9)	104 (35.9)	241 (48.2)	185 (37.0)	185 (37.0)	248 (58.4)	147 (34.6)	147 (34.6)	171 (64.5)	94 (35.5)	94 (35.5)	846 (57.2)	530 (35.8)	530 (35.8)
Decathlon.in	04 (1.4)	04 (1.4)	04 (1.4)	01 (0.2)	01 (0.2)	01 (0.2)	02 (0.5)	02 (0.5)	02 (0.5)	02 (0.8)	02 (0.8)	02 (0.8)	09 (0.6)	09 (0.6)	09 (0.6)
Jabong	21 (7.2)	04 (1.4)	04 (1.4)	26 (5.2)	01 (0.2)	01 (0.2)	31 (7.3)	05 (1.2)	05 (1.2)	13 (4.9)	03 (1.1)	03 (1.1)	91 (6.1)	13 (0.9)	13 (0.9)
Makemytrip	175 (60.3)	115 (39.7)	115 (39.7)	303 (60.6)	193 (38.6)	193 (38.6)	262 (61.6)	163 (38.4)	163 (38.4)	164 (61.9)	101 (38.1)	101 (38.1)	904 (61.1)	572 (38.6)	572 (38.6)
Myntra	59 (20.3)	13 (4.5)	13 (4.5)	91 (18.2)	39 (7.8)	39 (7.8)	82 (19.3)	21 (4.9)	21 (4.9)	55 (20.8)	10 (3.8)	10 (3.8)	287 (19.4)	83 (5.6)	83 (5.6)
Trivago	53 (18.3)	04 (1.4)	04 (1.4)	62 (12.4)	16 (3.2)	16 (3.2)	73 (17.2)	08 (1.9)	08 (1.9)	49 (18.5)	04 (1.5)	04 (1.5)	237 (16.0)	32 (2.2)	32 (2.2)
OYO	261 (90.0)	15 (5.2)	14 (4.8)	446 (89.2)	26 (5.2)	28 (5.6)	378 (88.9)	18 (4.2)	29 (6.8)	240 (90.6)	07 (2.6)	18 (6.8)	1325 (89.5)	66 (4.5)	89 (6.0)
Voonik	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)

MC Applications	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
Shein	0(0.0)	0(0.0)	0(0.0)	0(0.0)	000.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
H&M	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Aliexpress	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
IRCTC	282 (97.2)	08 (2.8)	08 (2.8)	486 (97.2)	14 (2.8)	14 (2.8)	418 (98.4)	07 (1.6)	07 (1.6)	259 (97.7)	06 (2.3)	06 (2.3)	1445 (97.6)	35 (2.4)	35 (2.4)
Starbucks	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Uber	207 (71.4)	18 (6.2)	65 (22.4)	350 (70.0)	39 (7.8)	111 (22.2)	284 (66.8)	24 (5.6)	117 (27.5)	172 (64.9)	24 (9.1)	69 (26.0)	1013 (68.4)	105 (7.1)	362 (24.5)
Nykaa	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Pepperfry	13 (4.5)	14 (4.8)	14 (4.8)	16 (3.2)	41 (8.2)	41 (8.2)	18 (4.2)	28 (6.6.)	28 (6.6.)	12 (4.5)	12 (4.5)	12 (4.5)	59 (4.0)	95 (6.4)	95 (6.4)
Shopify	0(0.0)	00(0.0 )	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
OLA	157 (54.1)	16 (5.5)	117 (40.3)	272 (54.4)	48 (9.6)	180 (36)	227 (53.4)	43 (10.1)	155 (36.5)	134 (50.6)	24 (9.1)	107 (40.4)	790 (53.4)	131 (8.9)	559 (37.8)
OLX	97 (33.4)	01 (0.3)	35 (12.1)	141 (28.2)	07 (1.4)	105 (21.0)	110 (25.9)	02 (0.5)	78 (18.4)	102 (38.5)	02 (0.8)	29 (10.9)	450 (30.4)	12 (0.8)	247 (16.7)
Firstcry	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Swiggy	192 (66.2)	17 (5.9)	81 (27.9)	343 (68.6)	36 (7.2)	121 (24.2)	290 (68.2)	31 (7.3)	104 (24.5)	180 (67.9)	15 (5.7)	70 (26.4)	1005 (67.9)	99 (6.7)	376 (25.4)
UberEats	182 (62.8)	09 (3.1)	21 (7.2)	299 (59.8)	16 (3.2)	35 (7.0)	271 (63.8)	10 (2.4)	34 (8.0)	167 (63.0)	07 (2.6)	27 (10.2)	919 (62.1)	42 (2.8)	117 (7.9)

MC Applications	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
Groupon	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Quikr	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Banggood	0(0.0)	00(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
	)														
Justdial	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Caratlane	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Infibeam	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Yebhi	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Croma store	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Booking.com	120 (41.4)	28 (9.7)	13 (4.5)	140 (28.0)	36 (7.2)	23 (4.6)	132 (31.1)	28 (6.6)	27 (6.4)	107 (40.4)	24 (9.1)	13 (4.9)	499 (33.7)	116 (7.8)	76 (5.1)
Smartshopper	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Rediff.com	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Indiamart	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Naapatol.com	67 (23.1)	0(0.0)	0(0.0)	79 (15.8)	0(0.0)	0(0.0)	78(18.4)	0(0.0)	0(0.0)	59 (22.3)	0(0.0)	0(0.0)	283 (19.1)	0(0.0)	0(0.0)
Fabindia.com	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	00(0.0)	0(0.0)
Shopping.IndiaTimes.com	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)

MC Applications	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
Shopping.rediff.com	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	00(0.0)
Yepme	02 (0.7)	03 (1.0)	03 (1.0)	03 (0.6)	03 (0.6)	08 (1.6)	02 (0.5)	02 (0.5)	05 (1.2)	02 (0.8)	02 (0.8)	0(0.0)	09 (0.6)	16 (1.1)	16 (1.1)
Travelguru.com	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	00(0.0)	0(0.0)	0(0.0)	(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
ClearTrip.com	11 (3.8)	11 (3.8)	11 (3.8)	18 (3.6)	18 (3.6)	18 (3.6)	14 (3.3)	14 (3.3)	14 (3.3)	16 (6.0)	16 (6.0)	16 (6.0)	59 (4.0)	59 (4.0)	59 (4.0)
Craftsvilla	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Goibibo.com	104 (35.9)	64 (22.1)	64 (22.1)	203 (40.6)	95 (19.0)	202 (14.4)	166 (39.1)	98 (23.1)	161 (37.9)	93 (35.1)	70 (26.4)	102 (38.5)	566 (38.2)	327 (22.1)	587 (39.7)

**Table Number: 5.12:**  
**Selected Users' Observation Regarding Perceived Cost with Regard to M-Commerce Transactions (Number and Percentage)**  
**(A=Agree, D=Disagree and U= Undecided)**

Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
Smartphone is not expensive	20 (6.9)	22 (7.6)	248 (85.5)	06 (1.2)	05 (1.0)	489 (97.8)	07 (1.6)	11 (2.6)	407 (95.8)	10 (3.8)	09 (3.4)	246 (92.8)	43 (2.9)	47 (3.2)	1390 (93.9)
Transaction fee is not high	27 (9.3)	18 (6.2)	245 (84.5)	06 (1.2)	4 (0.8)	490 (98.0)	06 (1.4)	01 (0.2)	418 (98.4)	01 (0.4)	05 (1.9)	259 (97.7)	40 (2.7)	28 (1.9)	1412 (95.4)
M-Commerce transactions saves my money	10 (3.4)	05 (1.7)	275 (94.8)	12 (2.4)	37 (7.0)	453 (90.6)	21 (4.9)	23 (5.4)	381 (89.6)	08 (3.0)	13 (4.9)	244 (92.1)	51 (3.4)	78 (5.1)	1353 (91.4)
Internet services are not expensive	18 (6.2)	10 (3.4)	262 (90.3)	10 (2.0)	04 (0.8)	486 (97.2)	10 (2.4)	04 (0.9)	411 (96.7)	05 (1.9)	02 (0.8)	258(9 7.4)	43 (2.9)	20 (1.4)	1417 (95.7)
Do not incur an additional expense to switch from wired Internet payment to M-Payment Option	22 (7.6)	21 (7.2)	247 (85.2)	13 (2.6)	92 (18.4)	395 (79.0)	18 (4.2)	30 (7.1)	377 (88.7)	16 (6.0)	08 (3.0)	241(9 0.9)	69 (4.7)	151 (10.2)	1260 (85.1)
Network connection fees for M-Commerce are Not Expensive	11 (3.8)	11 (3.8)	268 (92.4)	12 (2.4)	09 (1.8)	479 (95.8)	14 (3.3)	12 (2.8)	399 (93.3)	12 (4.5)	14 (5.3)	239(9 0.2)	49 (3.3)	46 (3.1)	1385 (93.6)
Manage necessary means and resources to use M-Commerce	18 (6.2)	10 (3.4)	262 (90.3)	77 (15.4)	71 (14.2)	352 (70.4)	35 (8.2)	34 (8.0)	356 (83.8)	14 (5.3)	14 (5.3)	237 (89.4)	144 (9.7)	129 (8.7)	1207 (81.6)
I am not afraid of unreasonable or fraudulent charges payable by me for M-Commerce	27 (9.3)	31 (10.7 )	232 (80.0)	05 (1.0)	14 (2.8)	481 (96.2)	08 (1.9)	17 (4.0)	400 (94.1)	13 (4.9)	10 (3.8)	242(9 1.3)	53 (3.6)	72 (4.9)	1355 (91.6)
M-Commerce are not burden for me	12 (4.1)	12 (4.1)	266 (91.7)	08 (1.6)	11 (2.2)	481 (96.2)	07 (1.)	16 (3.8)	402 (94.6)	07 (2.6)	18 (6.8)	240(9 0.6)	34 (2.3)	57 (3.9)	1389 (93.9)

<b>Table Number: 5.13:</b> <b>Selected Users' Observation Regarding Personalisation with Regard to m-Commerce Transactions (Number and Percentage)</b> <b>(A=Agree, D=Disagree and U= Undecided)</b>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
I would like to receive messages on Sales, Special Price and Promotional coupons for the products of my interest	08 (2.8)	13 (4.5)	269 (92.8)	80 (16.0)	117 (23.4)	303 (60.6)	12 (2.8)	01 (0.2)	412 (96.9)	20 (7.5)	02 (0.8)	243 (91.7)	120 (8.1)	133 (9.0)	1227 (82.9)
I wish to had the choice to register for mobile advertisements only for selected categories of products	16 (5.5)	10 (3.4)	264 (91.0)	88 (17.6)	72 (14.4)	340 (68.0)	23 (5.4)	17 (4.0)	385 (90.6)	30 (11.3)	12 (4.5)	223 (84.2)	157 (10.6)	111 (7.5)	1212 (81.9)
It is important to receive information on products of my choice	08 (2.8)	04 (1.4)	278 (95.9)	85 (17.0)	86 (17.2)	329 (65.8)	14 (3.3)	01 (0.2)	410 (96.5)	20 (7.5)	02 (0.8)	243 (91.7)	127 (8.6)	93 (6.3)	1260 (85.1)
It is necessary for M-Marketers to keep an updated information about their customers for providing personalise offers	13 (4.5)	05 (1.7)	272 (93.8)	09 (1.8)	08 (1.6)	483 (96.6)	12 (2.8)	08 (1.9)	405 (95.3)	12 (4.5)	14 (5.3)	239 (90.2)	46 (3.1)	35 (2.4)	1399 (94.5)
I am willing to share information with M-Marketers for information related to my choice of products	40 (13.8)	11 (3.8)	239 (82.4)	93 (18.6)	62 (12.4)	345 (69)	71 (16.7)	28 (6.6)	326 (76.7)	41 (15.5)	34 (12.8)	190 (71.7)	245 (16.6)	135 (9.1)	1100 (74.3)



<b>Table Number: 5.14:</b> <b>Selected Users' Observation Regarding Privacy with Regard to m-Commerce Transactions (Number and Percentage)</b> <b>(A=Agree, D=Disagree and U= Undecided)</b>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
Use of M-Commerce is an invasion of my privacy	33 (11.4)	21 (7.2)	236 (81.4)	130 (26.0)	30 (6.0)	340 (68.0)	73 (17.2)	36 (8.5)	316 (74.4)	62 (23.4)	12 (4.5)	191 (72.1)	298 (20.1)	99 (6.7)	1083 (73.2)
Location information invades my privacy	34 (11.7)	16 (5.5)	240 (82.8)	127 (25.4)	40 (8.0)	333 (66.6)	71 (16.7)	30 (7.1)	324 (76.2)	62 (23.4)	14 (5.3)	189 (71.3)	294 (19.9)	100 (6.8)	1086 (73.4)
My Personal information of needs to be kept confidential by M-Marketers	33 (11.4)	14 (4.8)	243 (83.3)	81 (16.2)	71 (14.2)	348 (69.6)	66 (15.5)	40 (9.4)	319 (75.1)	38 (14.3)	34 (12.8)	193 (72.8)	218 (14.7)	159 (10.7)	1103 (74.5)

**Table Number: 5.15:**  
**Selected Users' Observation Regarding Perceived Trust with Regard To M-Commerce Transactions (Number and Percentage)**  
**(A=Agree, D=Disagree and U= Undecided)**

Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
I am confident while making online purchases	35 (12.1)	12 (4.1)	243 (83.8)	86 (17.2)	65 (13.0)	349 (69.8)	68 (16.0)	27 (6.4)	330 (77.6)	37 (14.0)	35 (13.2)	193 (72.8)	226 (15.3)	139 (9.4)	1115 (75.3)
M-Commerce vendors are committed and fulfil agreement	36 (12.4)	10 (3.4)	244 (84.1)	80 (16.0)	71 (14.2)	349 (69.8)	68 (16.0)	27 (6.4)	330 (77.6)	36 (13.6)	36 (13.6)	193 (72.8)	220 (14.9)	144 (9.7)	1116 (75.4)
M-Commerce vendors are efficient at providing serving their customers	08 (2.8)	04 (1.4)	278 (95.9)	12 (2.4)	16 (3.2)	472 (94.4)	10 (2.4)	13 (3.1)	402 (94.6)	10 (3.8)	05 (1.9)	250 (94.3)	40 (2.7)	38 (2.6)	1402 (94.7)
M-Commerce vendors perform activities in accordance with customers' expectations	07 (2.4)	04 (1.4)	279 (96.2)	19 (3.8)	09 (1.8)	472 (94.4)	13 (3.1)	09 (2.1)	403 (94.8)	08 (3.0)	08 (3.0)	249 (94)	47 (3.2)	30 (2.0)	1403 (94.8)
Advances in Internet security technology provide trustworthy M-Commerce transactions	06 (2.1)	05 (1.7)	279 (96.2)	14 (2.8)	12 (2.4)	474 (94.8)	12 (2.8)	09 (2.1)	404 (95.1)	08 (3.0)	06 (2.3)	251 (94.7)	40 (2.7)	32 (2.2)	1408 (95.1)
Online stores that display assurance seals are trust worthier	06 (2.1)	02 (0.7)	282 (97.2)	14 (2.8)	06 (1.2)	480 (96.0)	13 (3.1)	4 (0.9)	408 (96.0)	08 (3.0)	03 (1.1)	254 (95.8)	41 (2.8)	15 (1.0)	1424 (96.2)
I feel confident in giving online details of debit card and credit card	05 (1.7)	02 (0.7)	283 (97.6)	11 (2.2)	06 (1.2)	483 (96.6)	11 (2.6)	04 (0.9)	410 (96.5)	05 (1.9)	04 (1.5)	256 (96.6)	32 (2.2)	16 (1.1)	1432 (96.8)
Payments process is smooth and secure	05 (1.7)	02 (0.7)	283 (97.6)	11 (2.2)	06 (1.2)	483 (96.6)	10 (2.4)	05 (1.2)	410 (96.5)	07 (2.6)	03 (1.1)	255 (96.2)	32 (2.2)	16 (1.1)	1431 (96.7)
I had a choice to opt-in or opt-out to share my personal information with third parties.	03 (1.0)	05 (1.7)	282 (97.2)	05 (1.0)	07 (1.4)	488 (97.6)	04 (0.9)	06 (1.4)	415 (97.6)	04 (1.5)	06 (2.3)	255 (96.2)	16 (1.1)	24 (1.6)	1440 (97.3)

<p align="center"><b>Table Number: 5.16:</b>  <b>Selected Users' Observation Regarding Perceived Risk Involved With M-Commerce Transactions (Number and Percentage)</b>  <b>(A=Agree, D=Disagree and U= Undecided)</b></p>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
Others cannot tamper with information of my M-Commerce transactions	02 (0.7)	11 (3.8)	277 (95.5)	02 (0.4)	22 (4.4)	476 (95.2)	02 (0.5)	18 (4.2)	405 (95.3)	02 (0.8)	12 (4.5)	251 (94.7)	08 (0.5)	63 (4.3)	1409 (95.2)
M-Commerce transactions do not have potential risk	04 (1.4)	04 (1.4)	282 (97.2)	08 (1.6)	08 (1.6)	484 (96.8)	07 (1.6)	07 (1.6)	411 (96.7)	05 (1.9)	04 (1.5)	256 (96.6)	24 (1.6)	23 (1.6)	1433 (96.8)
M-Tailors' information is trustworthy	02 (0.7)	06 (2.1)	282 (97.2)	02 (0.4)	14 (2.8)	484 (96.8)	02 (0.5)	12 (2.8)	411 (96.7)	02 (0.8)	07 (2.6)	256 (96.6)	08 (0.5)	39 (2.6)	1433 (96.8)
Feeding payment details in smartphones do not have potential risk	02 (0.7)	06 (2.1)	282 (97.2)	02 (0.4)	14 (2.8)	484 (96.8)	02 (0.5)	12 (2.8)	411 (96.7)	02 (0.8)	07 (2.6)	256 (96.6)	08 (0.5)	39 (2.6)	1433 (96.8)
M-Commerce has adequate information on the website and enough operational reliability.	02 (4.1)	09 (3.1)	269 (92.8)	02 (0.4)	133 (26.6)	365 (73.0)	0(0.0)	120 (28.2)	305 (71.8)	0(0.0)	82 (30.9)	183 (69.1)	14 (0.9)	344 (23.20)	1122 (75.8)
There is no risk of an unauthorized third party overseeing the payment process	07 (2.4)	14 (4.8)	269 (92.8)	03 (0.6)	132 (26.4)	365 (73.0)	0(0.0)	120 (28.2)	305 (71.8)	0(0.0)	82 (30.9)	183 (69.1)	10 (0.7)	348 (23.5)	1122 (75.8)
Regulations on M-Commerce minimize the privacy risks	14 (4.8)	18 (6.2)	258 (89.0)	02 (0.4)	242 (48.4)	256 (51.2)	01 (0.2)	220 (51.8)	204 (48.0)	02 (0.8)	134 (50.6)	129 (48.7)	19 (1.3)	614 (41.5)	847 (57.2)

<b>Table Number: 5.17:</b> <b>Selected Users' Observation Regarding Perceived Ease of Use Involved With M-Commerce Transactions (Number and Percentage)</b> <b>(A=Agree, D=Disagree and U= Undecided)</b>															
Selected Statements	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
It's easy to use smartphone for M-Commerce	12 (4.1)	09 (3.1)	269 (92.8)	02 (0.4)	133 (26.6)	365 (73.0)	03 (0.7)	117 (27.5)	305 (71.8)	03 (1.1)	79 (29.8)	183 (69.1)	20 (1.4)	338 (22.8)	1122 (75.8)
Interacting with M-Commerce is clear & easy to understand	12 (4.1)	09 (3.1)	269 (92.8)	02 (0.4)	133 (26.6)	365 (73.0)	03 (0.7)	117 (27.5)	305 (71.8)	02 (0.8)	80 (30.2)	183 (69.1)	19 (1.3)	339 (22.9)	1122 (75.8)
Using M-Commerce is comfortable with online transactions	03 (1.0)	09 (3.1)	278 (95.9)	03 (0.6)	124 (24.8)	373 (74.6)	18 (4.2)	20 (4.7)	387 (91.1)	05 (1.9)	02 (0.8)	258 (97.4)	29 (2.0)	155 (10.5)	1296 (87.6)
It is convenient to get information on offers and promotional coupons	03 (1.0)	09 (3.1)	278 (95.9)	10 (2.0)	109 (21.8)	381 (76.2)	23 (5.4)	26 (6.1)	376 (88.5)	06 (2.3)	06 (2.3)	253 (95.5)	42 (2.8)	150 (10.1)	1288 (87.0)
It would be easy to become skilful at using cell phone or PDA for M-Commerce transactions	07 (2.4)	05 (1.7)	278 (95.9)	09 (1.8)	91 (18.2)	400 (80.0)	17 (4.0)	12 (2.8)	396 (93.2)	02 (0.8)	04 (1.5)	259 (97.7)	35 (2.4)	112 (7.6)	1333 (90.1)

<p align="center"><b>Table Number: 5.18:</b>  <b>Selected Users' Observation Regarding Perceived Usefulness Involved With M-Commerce Transactions (Number and Percentage)</b>  <b>(A=Agree, D=Disagree and U= Undecided)</b></p>															
Selected Statements	Vadodara (out of 290)			Ahmedabad (out of 500)			Surat (out of 425)			Rajkot (out of 265)			Gujarat (out of 1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
It is easy to search & compare products & services on smartphone.	04 (1.4)	05 (1.7)	281 (96.9)	04 (0.8)	49 (9.8)	447 (89.4)	14 (3.3)	04 (0.9)	407 (95.8)	02 (0.8)	0(0.0)	263 (99.2)	24 (1.6)	58 (3.9)	1398 (94.5)
M-Commerce helps me in accomplishing tasks faster.	33 (11.4)	13 (4.5)	244 (84.1)	77 (15.4)	74 (14.8)	349 (69.8)	66 (15.5)	30 (7.1)	329 (77.4)	31 (11.7)	41 (15.5)	193 (72.8)	207 (14.0)	158 (10.7)	1115 (75.3)
M-Commerce makes life better	35 (12.1)	1 2(4.1)	243 (83.8)	74 (14.8)	77 (15.4)	349 (69.8)	67 (15.8)	29 (6.8)	329 (77.4)	31 (11.7)	41 (15.5)	193 (72.8)	207 (14.0)	159 (10.7)	1114 (75.3)
Use of M-Commerce reflects my personality	36 (12.4)	10 (3.4)	244 (84.1)	71 (14.2)	82 (16.4)	347 (69.4)	70 (16.5)	26 (6.1)	329 (77.4)	30 (11.3)	43 (16.2)	192 (72.5)	207 (14.0)	161 (10.9)	1112 (75.1)
I know more about new products before other people do	57 (19.7)	23 (7.9)	210 (72.4)	79 (15.8)	55 (11.0)	366 (73.2)	74 (17.4)	44 (10.4)	307 (72.2)	47 (17.7)	28 (10.6)	190 (71.7)	257 (17.4)	150 (10.1)	1073 (72.5)
M-Commerce provides flexibility to conduct business transactions anytime from anywhere	58 (20.0)	22 (7.6)	210 (72.4)	91 (18.2)	44 (8.8)	365 (73.0)	80 (18.8)	39 (9.2)	306 (72.0)	50 (18.9)	25 (9.4)	190 (71.7)	279 (18.9)	130 (8.8)	1071 (72.4)
People using M-Commerce are better informed than those using the TV, newspaper and magazines about the product/service they intended to purchase	57 (19.7)	23 (7.9)	210 (72.4)	101 (20.2)	42 (8.4)	357 (71.4)	80 (18.8)	37 (8.7)	308 (72.5)	48 (18.1)	27 (10.2)	190 (71.7)	286 (19.3)	129 (8.7)	1065 (72.0)

<b>Table Number: 5.19:</b> <b>Selected Users' Observation Regarding Social Norms Involved With M-Commerce Transactions (Number and Percentage)</b> <b>(A=Agree, D=Disagree and U= Undecided)</b>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat (N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
People who are important to me think that I should use M-Commerce services	50 (17.2)	30 (10.3)	210 (72.4)	73 (14.6)	54 (10.8)	373 (74.6)	62 (14.6)	46 (10.8)	317 (74.6)	45 (17.0)	30 (11.3)	190 (71.7)	230 (15.5)	160 (10.8)	1090 (73.6)
Majority of my friends/ colleagues use M-Commerce services	55 (19.0)	25 (8.6)	210 (72.4)	76 (15.2)	46 (9.2)	378 (75.6)	68 (16.0)	49 (11.5)	308 (72.5)	47 (17.7)	28 (10.6)	190 (71.7)	246 (16.6)	148 (10.0)	1086 (73.4)
People who are important to me, think that using M-Commerce services is a good/ wise idea	55 (19.0)	25 (8.6)	210 (72.4)	80 (16.0)	48 (9.6)	372 (74.4)	70 (16.5)	43 (10.1)	312 (73.4)	47 (17.7)	28 (10.6)	190 (71.7)	252 (17.0)	144 (9.7)	1084 (73.2)
People who are important to me, think use of mobile payment services is beneficial	53 (18.3)	27 (9.3)	210 (72.4)	79 (15.8)	58 (11.6)	363 (72.6)	65 (15.3)	50 (11.8)	310 (72.9)	46 (17.4)	29 (10.9)	190 (71.7)	243 (16.4)	164 (11.1)	1073 (72.5)
I trust my intuition more than advice from others while using new technology.	55 (19.0)	25 (8.6)	210 (72.4)	8 (1.6)	50 (10.0)	370 (74.0)	70 (16.4)	49 (11.5)	306 (72.0)	48 (18.1)	27 (10.2)	190 (71.7)	253 (17.1)	151 (10.2)	1076 (72.7)
I seek out the opinion of those who had tried new products or brands before I try them	12 (4.1)	12 (4.1)	266 (91.7)	05 (1.0)	164 (32.8)	331 (66.2)	4.0 (0.9)	136.0 (32.0)	285 (67.1)	04 (1.5)	80 (30.2)	181 (68.3)	25 (1.7)	392 (26.5)	1063 (71.8)
Friends and relatives had influence on my decision to use M-Commerce	10 (3.4)	2.0 (0.7)	278 (95.9)	02 (0.4)	139 (27.8)	359 (71.8)	0(0.0)	137 (32.2)	288 (67.8)	0(0.0)	81 (30.6)	184 (69.4)	12 (0.8)	359 (24.3)	1109 (74.9)
Mass media recommendation to use M-Commerce has influenced me to use M-Commerce	6.0 (2.1)	6.0 (2.1)	278 (95.9)	1.0 (0.2)	137 (27.4)	362 (72.4)	1.0 (0.2)	134 (31.5)	290 (68.2)	0(0.0)	78 (29.4)	187 (70.6)	8(0.5)	355 (24.0)	1117 (75.5)

<p align="center"><b>Table Number: 5.20:</b>  <b>Selected Users' Observation Regarding Perceived Behavioural Control Involving with m-Commerce Transactions (Number and Percentage)</b>  <b>(A=Agree, D=Disagree and U= Undecided)</b></p>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
I am able to use m-Commerce services without the help of others	58 (20.0)	42 (14.5)	190 (65.5)	82 (16.4)	66 (13.2)	352 (70.4)	70 (16.5)	76 (17.9)	279 (65.6)	49 (18.5)	34 (12.8)	182 (68.7)	259 (17.5)	218 (14.7)	1003 (67.8)
I had necessary means and resources to use m-Commerce services	62 (21.4)	38 (13.1)	190 (65.5)	90 (18.0)	65 (13.0)	345 (69.0)	72 (16.9)	67 (15.8)	286 (67.3)	53 (20)	30 (11.3)	182 (68.7)	277 (18.7)	200 (13.5)	1003 (67.8)
I had knowledge and ability to use m-Commerce services	64 (22.1)	36 (12.4)	190 (65.5)	88 (17.6)	61 (12.2)	351 (70.2)	77 (18.1)	64 (15.1)	284 (66.8)	53 (20.0)	30 (11.3)	182 (68.7)	282 (19.1)	191 (12.90)	1007 (68.0)
I am always waiting to receive m-Commerce services	61 (21.0)	39 (13.4)	190 (65.5)	88 (17.6)	61 (12.2)	351 (70.2)	72 (16.9)	71 (16.7)	282 (66.4)	52 (19.6)	31 (11.7)	182 (68.7)	273 (18.4)	202 (13.6)	1005 (67.9)
I will recommend using m-Commerce service to others	61 (21.0)	39 (13.4)	190 (65.5)	86 (17.2)	63 (12.6)	351 (70.2)	74 (17.4)	70 (16.5)	281 (66.1)	51 (19.2)	32 (12.1)	182 (68.7)	272 (18.4)	204 (13.8)	1004 (67.8)
Making M-Commerce transactions is entirely within my control`	59 (20.3)	41 (14.1)	190 (65.5)	84 (16.8)	64 (12.8)	352 (70.4)	70 (16.5)	73 (17.2)	282 (66.4)	50 (18.9)	33 (12.5)	182 (68.7)	263 (17.8)	211 (14.3)	1006 (68)
I had access to the software, hardware and network services required to use m-Commerce services.	58 (20.0)	42 (15.5)	190 (65.5)	86 (17.2)	68 (13.6)	346 (69.2)	69 (16.2)	69 (16.2)	287 (67.5)	49 (18.5)	34 (12.8)	182 (68.7)	262 (17.7)	213 (14.4)	1005 (67.9)
My general intention to purchase via mobile phone is very high	58 (20.0)	42 (14.5)	190 (65.5)	85 (17.0)	76 (15.2)	339 (67.8)	69 (16.2)	71 (16.7)	285 (67.1)	49 (18.5)	34 (12.8)	182 (68.7)	261 (17.6)	223 (15.1)	996 (67.3)

**Table Number: 5.21:**  
**Selected Users' Observation Regarding Attitude Involved with M-Commerce Transactions (Number and Percentage)**  
**(A=Agree, D=Disagree and U= Undecided)**

Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
Using M-Commerce services is a good /wise idea	25 (8.6)	22 (7.6)	243 (83.8)	11 (2.2)	155 (31.0)	334 (66.8)	08 (1.9)	152 (35.8)	265 (62.4)	07 (2.6)	79 (29.8)	179 (67.5)	51 (3.4)	408 (27.6)	1021 (69)
I am in favour of using M-Commerce	21 (7.2)	22 (7.6)	247 (85.2)	06 (1.2)	133 (26.6)	361 (72.2)	06 (1.4)	140 (32.9)	279 (65.6)	04 (1.5)	74 (27.9)	187 (70.6)	37 (2.5)	369 (24.9)	1074 (72.6)
M-Commerce services is beneficial for me	32 (11.0)	10 (3.4)	248 (85.5)	11 (2.2)	155 (31.0)	334 (66.8)	06 (1.4)	125 (29.4)	294 (69.2)	05 (1.9)	71 (26.8)	189 (71.3)	54 (3.6)	361 (24.4)	1065 (72.0)
I hold positive perception about using M-Commerce services	27 (9.3)	19 (6.6)	244 (84.1)	08 (1.6)	156 (31.2)	336 (67.2)	07 (1.6)	139 (32.7)	279 (65.6)	04 (1.5)	89 (33.6)	172 (64.9)	46 (3.1)	403 (27.2)	1031 (69.7)
I feel satisfied while making M-Commerce transactions	66 (22.8)	83 (28.6)	141 (48.6)	101 (20.2)	144 (28.8)	255 (51.0)	76 (17.9)	126 (29.6)	223 (52.5)	60 (22.6)	88 (33.2)	117 (44.2)	303 (20.5)	441 (29.8)	736 (49.7)
It is essential to make use of M-Commerce	63 (21.7)	59 (20.3)	168 (57.9)	88 (17.6)	117 (23.4)	295 (59.0)	59 (13.9)	102 (24.0)	264 (62.1)	62 (23.4)	61 (23.0)	142 (53.6)	272 (18.4)	339 (22.9)	869 (58.7)
I hold positive views towards offering mobile coupons for discounts	70 (24.1)	54 (18.6)	166 (57.2)	111 (22.2)	101 (20.2)	288 (57.6)	81 (19.1)	104 (24.5)	240 (56.5)	65 (24.5)	59 (22.3)	141 (53.2)	327 (22.1)	318 (21.5)	835 (56.4)
I like to undertake online scanning of products prior making a purchase	85 (29.3)	63 (21.7)	142 (49.0)	128 (25.6)	118 (23.6)	254 (50.8)	88 (20.7)	112 (26.4)	225 (52.9)	78 (29.4)	69 (26.0)	118 (44.5)	379 (25.6)	362 (24.5)	739 (49.9)
I enjoy buying products & services via M-Commerce	120 (41.4)	29 (10.0)	141 (48.6)	188 (37.6)	57 (11.4)	255 (51.0)	140 (32.9)	67 (15.8)	218 (51.3)	118 (44.5)	30 (11.3)	117 (44.2)	566 (38.2)	183 (12.4)	731 (49.4)



<p align="center"><b>Table Number: 5.22:</b>  <b>Selected Users' Observation Regarding Adoption Intention Involved with M-Commerce Transactions (Number and Percentage)</b>  <b>(A=Agree, D=Disagree and U= Undecided)</b></p>															
Selected Statements	Vadodara (N=290)			Ahmedabad (N= 500)			Surat (N= 425)			Rajkot (N=265)			Gujarat State(N=1480)		
	DA	N	A	DA	N	A	DA	N	A	DA	N	A	DA	N	A
Total costs to perform transactions via mobile phone are not more than other channels	15 (5.2)	14 (4.8)	261 (90.0)	17 (3.4)	76 (15.2)	407 (81.4)	15 (3.5)	40 (9.4)	370 (87.1)	01 (0.4)	71 (26.8)	193 (72.8)	48 (3.2)	201 (13.6)	1231 (83.2)
I would prefer to use M-Commerce , which is personalised for me	14 (4.8)	12 (4.1)	264 (91.0)	14 (2.8)	61 (12.2)	425 (85)	14 (3.3)	41 (9.6)	370 (87.1)	02 (0.8)	50 (18.9)	213 (80.4)	44 (3.0)	164 (11.1)	1272 (85.9)
If Privacy is taken care of, I would like to adopt M-Commerce	16 (5.5)	14 (4.8)	260 (89.7)	21 (4.2)	72 (14.4)	407 (81.4)	18 (4.2)	39 (9.2)	368 (86.6)	09 (3.4)	53 (20)	203 (76.6)	64 (4.3)	178 (12)	1238 (83.6)
I want to adopt M-Commerce because I trust it	08 (2.8)	10 (3.4)	272 (93.8)	12 (2.4)	70 (14.0)	418 (83.6)	09 (2.1)	34 (8.0)	382 (89.9)	05 (1.9)	50 (18.9)	210 (79.2)	34 (2.3)	164 (11.1)	1282 (86.6)
Recent laws reduce the risk related to M-Commerce,which influence it's adoption	25 (8.6)	18 (6.2)	247 (85.2)	32 (6.4)	74 (14.8)	394 (78.8)	30 (7.1)	46 (10.8)	349 (82.1)	10 (3.8)	65 (24.5)	190 (71.1)	97 (6.6)	203 (13.7)	1180 (79.7)
M-Commerce's userfriendliness makes easy adoption of it	12 (4.1)	11 (3.8)	267 (92.1)	17 (3.4)	70 (14.0)	413 (82.6)	15 (3.5)	33 (7.8)	377 (88.7)	02 (0.8)	67 (25.3)	196 (74.0)	46 (3.1)	181(12. 2)	1253 (84.7)
Hassle free shopping through smartphone influences M-Commerce adoption	14 (4.8)	08 (2.8)	268 (92.4)	15 (3.0)	76 (15.2)	409 (81.8)	15 (3.5)	35 (8.2)	375 (88.2)	04 (1.5)	60 (22.6)	201 (75.8)	48 (3.2)	179(12. 1)	1253 (84.7)
Positive attitude of Society towards M-Commerce influences it's adoption	25 (8.6)	07 (2.4)	258 (89.0)	29 (5.8)	65 (13.0)	406 (81.2)	27 (6.4)	40 (9.4)	358 (84.2)	09 (3.4)	65 (24.5)	191 (72.1)	90 (6.1)	177(12. 0)	1213 (82.0)
I will continue to make use of M-Commerce transactions in the near future	11 (3.8)	08 (2.8)	271 (93.4)	14 (2.8)	68 (13.6)	418 (83.6)	12 (2.8)	34 (8.0)	379 (89.2)	03 (1.1)	54 (20.4)	208 (78.5)	40 (2.7)	164(11. 1)	1276 (86.2)
I intend to make more M-Commerce transactions in future than I do now	20 (6.9)	10 (3.4)	260 (89.7)	24 (4.8)	64 (12.8)	412 (82.4)	19 (4.5)	36 (8.5)	370 (87.1)	01 (0.4)	65 (24.5)	199 (75.1)	64 (4.3)	175(11. 8)	1241 (83.9)
I will strongly recommend others to use M-Commerce services	14 (4.8)	08 (2.8)	268 (92.4)	15 (3.0)	73 (14.6)	412 (82.4)	14 (3.3)	37 (8.7)	374 (88.0)	02 (0.8)	63 (23.8)	200 (75.5)	45 (3.0)	181(12. 2)	1254 (84.7)

**ANNEXURE NO.-FIVE  
DETAILS OF CODE FOR AMOS**

Table Number:6.25		
List of selected statements with regard to Perceived Cost (PC), Personalisation (PERS), Privacy (PRY) Perceived Trust (TR), Perceived Risk (RISK), Perceived Ease of Use (EOU), Perceived Usefulness (PU), Social Norms (SN), Perceived Behavioural Control (BC), Attitude (ATT) and Adoption Intention (AD) involved in m-Commerce transactions		
Sr.No.	Selected statement code	Key statement of selected attributes of m-Commerce users
1	PC1	M-Commerce transactions saves my money
2	PC2	Internet services are not expensive
3	PC3	Do not incur an additional expense to switch from wired Internet payment to omnipresent M- Payment Option
4	PC4	Wireless network connection fees for m-Commerce are not Expensive
5	PC5	I manage necessary means and resources to use m-Commerce
6	PC6	I am not afraid for unreasonable or fraudulent charges payable by me for m-Commerce
7	PC7	M-Commerce is not a burden for me
8	PC8**	Smartphone is not expensive
9	PC9**	Transaction fee is not high for using m-Commerce
10	PERS1	I would like to receive messages on Sales, Special Price and Promotional coupons for the products of my interest
11	PERS2	I wish to have the choice to register for mobile advertisements only for selected categories of products
12	PERS3	It is important to receive information on products of my choice
13	PERS4	It is necessary for m-Commerce vendors to keep an updated information about their customers for providing personalise offers
14	PERS5	I am willing to share information with m-Commerce vendors for information related to my choice of products
15	PRY1	Use of m-Commerce is an invasion of my privacy
16	PRY2	My Personal information of needs to be kept confidential by m-Commerce vendors
17	PRY3**	Location information invades my privacy
18	TR1	M-Commerce vendors are committed, they fulfil their agreement
19	TR2	M-Commerce vendors are efficient at providing serving their customers
20	TR3	I believe that m-Commerce vendors perform activities in accordance with customers' expectations
21	TR4	Advances in Internet security technology provide trustworthy M-Commerce transactions
22	TR5	Online stores that display assurance seals are trust worthier
23	TR6	I feel confident in giving online details of debit card and credit card
24	TR7	Payments process in m-Commerce is smooth and secure
25	TR8	I have the option of opting in or out of having my personal information shared with third parties.
26	TR9**	I am confident while making online purchases
27	RISK1	Others cannot tamper with information of my m-Commerce transactions
28	RISK2	M-Commerce transactions do not have potential risk
29	RISK3	M-Tailors' information is trustworthy
30	RISK4	Feeding payment details in smartphones do not have potential risk

Sr.No.	Selected statement code	Key statement of selected attributes of m-Commerce users
31	RISK5	M-Commerce has adequate information on the website and have enough operational reliability.
32	RISK6	There is no risk of an unauthorized third party overseeing the payment process
33	RISK7	Regulations on m-Commerce minimise the privacy risks
34	EOU1	It's easy to use smartphone for m-Commerce
35	EOU2	Interacting with m-Commerce is clear & easy to understand
36	EOU3	Using m-Commerce is comfortable with online transactions
37	EOU4	It is convenient to get information on offers and promotional coupons
38	EOU5	It would be easy to become skilful at using cell phone or PDA for m-Commerce transactions
39	PU1	Use of m-Commerce reflects my personality
40	PU2	I know more about new products before other people do
41	PU3	M-Commerce provides flexibility to conduct business transactions anytime from anywhere
42	PU4	People who use m-Commerce are more informed about the product or service they intend to acquire than those who use the television, newspaper, or magazines.
43	PU5**	It is easy to search & compare products & services on smartphone.
44	PU6**	M-Commerce helps me in accomplishing tasks faster.
45	PU7**	M-Commerce makes life better
46	SN1	People that matter to me believe that I should use mobile commerce services.
47	SN2	Majority of my friends/ colleagues use m-Commerce services
48	SN3	People close to me believe that employing m-Commerce services is a good/wise decision.
49	SN4	People close to me believe that using mobile payment services is beneficial.
50	SN5**	I trust my intuition more than advice from others while using new technology.
51	SN6**	Before I test new items or brands, I seek the advice of individuals who have already tried them.
52	SN7**	My decision to use m-Commerce was influenced by friends and relatives.
53	SN8**	Mass media (e.g., TV, newspaper, articles, radio) recommendation to use m-Commerce has influenced me to use m-Commerce
54	BC1	I am capable of utilising mobile commerce services without any assistance from others.
55	BC2	I possess the requisite capabilities and resources to take advantage of mobile commerce services.
56	BC3	I am familiar with and capable of using mobile commerce services.
57	BC4	I am always waiting to receive m-Commerce services
58	BC 5**	I will recommend using m-Commerce service to others
59	BC6**	Making m-Commerce transactions is entirely within my control
60	BC7**	I have the necessary software, hardware, and network connectivity to use mobile commerce services.
61	BC8**	My general intention to purchase via mobile phone is very high
62	ATT1	Using m-Commerce services is a good /wise idea
63	ATT2	I am in favour of using m-Commerce
64	ATT3	M-Commerce services is beneficial for me
65	ATT4	I hold positive perception towards using m-Commerce services

Sr.No.	Selected statement code	Key statement of selected attributes of m-Commerce users
66	ATT5	I feel satisfied while making m-Commerce transactions
67	ATT6	It is essential to make use of m-Commerce
68	ATT7	I hold positive views towards offering mobile coupons for discounts
69	ATT8	I like to undertake online scanning of products prior making a purchase
70	ATT9	I enjoy buying products & services via m-Commerce
71	AD1	Hassle free shopping through smartphone influences m-Commerce adoption
72	AD2	Positive attitude of Society towards m-Commerce influences its adoption
73	AI3	I will continue to make use of m-Commerce transactions in the near future
74	AD4	I intend to make more m-Commerce transactions in future than I do now
75	AD5	I will strongly recommend others to use m-Commerce services
76	AD6**	Total costs to perform transactions via mobile phone are less than other channels
77	AD7**	I would prefer to use m-Commerce, which is personalised for me
78	AD8**	If Privacy is taken care of, I would like to adopt m-Commerce
79	AD9**	I want to adopt m-Commerce because I trust it
80	AD10**	Recent laws reduce the risk related to m-Commerce, which influence its adoption
81	AD11**	user-friendliness of M-Commerce makes easy adoption of it

**\*\* Removed due to poor factor loading**

## EXAMINING THE EFFECT OF DEMOGRAPHIC VARIABLES ON M-COMMERCE ADOPTION

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### ABSTRACT

*Traditional mode of shopping is getting replaced by digital mode where mobile phones play a very significant role. So, it becomes necessary to know the factors that draw people towards adopting this medium of commerce. This study was undertaken to examine the relationship between demographic variable namely, age, gender, occupation, income, type of family and marital status on different mobile commerce adoption intention. Despite the fact that sample size was small and area for collecting sample was restricted to one district of Gujarat, this study would give some insights into the demographic profile of m-commerce users. Those business houses who want to enter into mobile commerce may find this study useful as it gives insight into the socio-economic details of target group which would help the marketers while deciding their strategies.*

**Keywords:** Mobile Commerce, Demographic variable, Attitude, Adoption Intention

### Introduction

Advances in Information and communication technology (ICT) in the form wireless mobile communication technology has allowed consumers to plan, browse and acquire products and services from anywhere at any time. The increase in purchasing power due to higher disposable income coupled with high wireless subscriber base, implementation of 4G network, mounting demand for rich mobile contents, social networking trends, increasing enterprise mobility, broader reach and flexibility, contextual marketing and the changes in expectation and behaviour pattern of consumers with regard to shopping were the factors that have largely contributed to the growth of M-commerce. As more people have started using wireless internet for buying goods and services, it is very important to identify the demographic profile of users of this medium of commerce. This study would make an attempt to throw some light on that aspect as the researcher in this study have made an earnest attempt to identify the demographic profile of m-commerce users. The paper is organised into different section. First section discusses about conceptual back ground of the study followed by Review of Literature. Objectives, Hypothesis and Research Methodology part is discussed later. In the third section, data analysis and interpretations are given followed by findings, implications and conclusions.

### A Brief Review of Literature

Age was found to be an important factor in technology adoption as young consumers, being born in a digital era are more technologically proficient than people of other age groups (Pieri and Diamantinir, 2010). While some researchers (Pederson, 2005; Islam et al., 2010) found age to be an important predictor of m-commerce, others have expressed their reservations (Kalliny, M. and Minor, M., 2006). Chong et al., (2012) investigated the predictors of m-commerce and found that except age, other demographic factors like gender and education have no role to play in adoption decision. Moderating role of gender on m-commerce adoption was studied by many researchers, Liébana-Cabanillas et al. (2014) studied in m-payment context and found gender as an important factor for m-payment adoption where the impact was greater in men than women. Sohn et al., (2014) found that adoption factors of people differ as per gender as males prefer utilitarian apps whereas females preferred hedonic apps. Similar results were found in studies conducted by Okazaki and Mendez (2013) and Marinkovic et.al., (2020) in m-commerce adoption. Direct role of gender was studied by Yang (2005) in m-commerce and Teo et al. (2012) in m-banking and they found that gender played a major role in adoption decision. Some studies have found that men are

more likely to adopt m-commerce than their counterparts (Yang, 2005) while others have found that gender gaps are lessening or disappearing (Enrique Bigné et al., 2007; Chong, 2013; Faqih and Jaradat, 2015). Dekimpe et al. (2000) and Muthaiyah (2004) indicated that income plays an important role in mobile commerce adoption as it affects the penetration level of mobile technology whereas it was not found to be an important determinant in m-purchase decision (Enrique Bigné, 2007). Li et al. (2014) found that education had a significant impact whereas gender recorded no major effect on adoption. Marumbwa (2014) found that age and gender had negative influence whereas education and employment had positive influence on user's acceptance. Sheehan (2002) revealed that people with high education were more worried about the privacy related to online transactions and people with high income were having less concern regarding information privacy (O'Neil, 2001).

### Objectives and Hypothesis of the Research Study

Most of the previous studies were focused on technology adoption, neglecting the effect of demographic variables on adoption intention. Investigating the influence of demographic variables would help the m-commerce vendors to re-segment their target market and to personalise their offering as per the target group's requirement. This information would be beneficial to advertisers to decide their positioning strategies accordingly. So, the researchers should have a clear understanding of the demographic profile of the consumers and their adoption behavior towards m-commerce services. The main objective of the study was to find the impact of selected demographic variables viz., Age, income, gender, occupation, type of family and marital status of selected consumers on their adoption decision. Based on the above literature review the following hypothesis have been developed:

H1: There is no significant difference between demographic variables namely the respondents' age, with their intention to adopt M-Commerce.

H2: There is no significant difference between demographic variables namely the

respondents' gender, with their intention to adopt M-Commerce.

H3: There is no significant difference between demographic variables namely the respondents' income, with their intention to adopt M-Commerce.

H4: There is no significant difference between demographic variables namely the respondents' occupation, with their intention to adopt M-Commerce.

H5: There is no significant difference between demographic variables namely the respondents' marital status with their intention to adopt M-Commerce.

H6: There is no significant difference between demographic variables namely the respondents' type of family with their intention to adopt M-Commerce.

### Research Methodology

The research design of the study considering its objectives, rationale, scope and coverage was explorative as well as descriptive in nature. The Structured non-disguised questionnaire was used to collect primary data from mobile phone users of Vadodara by using convenience and quota sampling. The samples were collected from different market places, shopping malls, office complexes and some residential areas of Vadodara. The questionnaire was employed to measure their attitude and intention to engage in mobile commerce. A male & female mobile phone user residing in the city of Vadodara, above 16 years of age were considered as a representative sampling unit.

The questionnaire contains demographic profile of respondents based on age, gender, marital status, type of family, occupation, and annual income are given in Table Number-01.

**Table Number-01: Descriptive statistics of Demographic variable (n = 350)**

Measure	Level	Frequency	Percent (n=350)
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
	Unemployed	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

### Assessing the Normality of the Distribution of Data

#### Test of Normality of the Distribution

As the assumption of normality is a prerequisite for many inferential statistical techniques, an attempt was made to assess the normality of the data that was collected from 350 people belonging to different sections of the society from Vadodara, Gujarat. The p-value of Kolmogorov-Smirnov Statistics (0.000) and Shapiro-Wilk Statistics (0.000) shows that data is not normal.

The analysis about the opinion of selected mobile commerce users on the drivers of m-commerce adoption intention showed a negative skewness with the value of -2.856 and kurtosis with a value of 8.125 indicates that the

distribution is peaked. The peakedness is also supported by the shape of the curve of the histogram as well as the median value positioned in the centre of the box plot which indicated that distribution cannot be assumed to be normal. As data is not normally distributed non-parametric was used to analyse the data. Chi-square was performed to test the association among demographic variables namely age, gender, educational qualification and occupation and the eleven constructs of the study.

Pre-tested questionnaire was used to analyse the data. Reliability and Validity details are given in Table Number -02. Reliability of the questionnaire was tested using Cronbach Alpha. As the Cronbach alpha for all the eleven variables have reliability coefficient of .7 and more, we can interpret that the items have good internal consistency and the questionnaire is reliable for the purpose of the research. Exploratory factor analysis (EFA) was performed to know the underlying relationships between measured variables and to scrutinize its internal dependability. The results of Cronbach alpha and exploratory factory analysis shows reliability and validity of the data for further analysis. In order to know the sample adequacy, KMO test was conducted. From the Bartlett's test of sphericity that P value is less than 0.001 and KMO measure is 0.706. The significant values Bartlett's test and KMO value (>0.6) shows that sample is adequate for doing the research study

**Table Number-02: Summary of Exploratory Factor Analysis and Cronbach alpha**

Variable	Original item	Deleted item	Actual item	Factor loading	Reliability (Cronbach alpha)
PC	9	0	9	0.685-0.837	0.925
PER	5	0	5	0.639-0.850	0.843
PRY	3	0	3	0.497-0.627	0.774
PT	9	0	9	0.635-0.840	0.679
PR	7	0	7	0.612-0.856	0.849
PEOU &PU	12	1	11	0.517-0.833	0.889
SN	8	0	8	0.421-0.788	0.704
PBC	8	2	6	0.623-0.857	0.729
AT	9	2	7	0.549-0.857	0.772
AI	11	0	11	0.442-0.812	0.893

**Table Number-03: Association of Adoption intention statements with various demographic variables using Chi-Square Test**

Factors	Age	Gender	Marital Status	Family	Income	Occupation
Cost	0.511	0.618	0.289	0.619	0.912	0.954
Personalisation	0.392	0.939	0.111	0.232	0.299	0.332
Privacy	0.097	0.693	0.517	0.271	0.224	0.289
Trust	0.819	0.400	0.680	0.792	0.962	0.846
Risk	0.334	0.931	0.950	0.262	0.058	0.431
Userfriendliness	0.584	0.627	0.711	0.175	0.847	0.714
Ease of Use	0.686	0.488	0.011*	0.975	0.991	0.293
Attitude	0.131	0.943	0.014*	0.727	0.890	0.141
Intention to continue	0.564	0.348	0.049*	0.789	0.592	0.281
More frequent adoption in future	0.007*	0.275	0.014*	0.869	0.292	0.022*
Willingness to recommend	0.440	0.101	0.081	0.561	0.346	0.295

From the Table Number-03 it was examined that age and occupation of the m-commerce users affected the adoption of m-commerce. Marital Status affected ease of use, attitude, continuous use, adoption of m-commerce rest of the demographic variable were not associated with the variable under study.

**Table Number-04: Hypothesis Testing and Major Findings of the Study**

<b>Table Number-04: Results of Kruskal-Wallis Test and Mann-Whitney Test</b>				
Sr. No.	Null Hypothesis	Test	Sign	Decision
1	The mean value of opinion of respondents of different age group, on their M-commerce adoption intention is same.	Kruskal Wallis	0.119	Fail to reject
2	The median value of opinion of respondents from different occupation, on their M-commerce adoption intention is same.	Kruskal Wallis	0.095	Fail to reject
3	The median value of opinion of respondents of different income groups, on their M-commerce adoption intention is same.	Kruskal Wallis	0.582	Fail to reject
4	The median value of opinion of respondents of different Gender, on their M-commerce adoption intention is same.	Mann-Whitney	0.334	Fail to reject
5	The median value of opinion of respondents of different marital status, on their M-commerce adoption intention is same.	Mann-Whitney	0.031*	Reject
6	The median value of opinion of respondents of different type of family setup, on their M-commerce adoption intention is same.	Mann-Whitney	0.200	Fail to reject
Note: * Result is significant at 0.05 level				

As the data is not normal, non-parametric test is used to test the hypothesis. Kruskal Wallis test is used to test hypothesis related to age, occupation, income and Mann-Whitney test is

used to test hypothesis related to gender, marital status and type of family. Result of the test is given in table number-04

To compare median value of respondents of different age group on their adoption



intention, Kruskal-Wallis test is applied. Mean rank is 158.94 for the age group of 16-30, 180.52 for age group between 31-50 and 186.43 for the people who are above 50 years of age. The results show that median adoption increases with age. P-value (0.119) shows that the result is not significant. Though there is increasing trend as age increases adoption increases, but it is not statistically significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference age group as the p-value (0.119) is more than 0.05. To compare median value of variable on the basis of occupation on their adoption intention, Kruskal-Wallis test is applied. From the table, it can be observed that Mean rank for student/non-working is 161.19, 177.76 for service people and 190.33 for self-employed. Adoption rate is more on self-employed people and comparatively low on student/ non-working category. Though the above table show that mean rank is more among self-employed people, the results of statistical test based on p-value (0.095) shows that it is not statistically significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference occupational background as the p-value (0.095) is more than 0.05.

From the table it can be observed that mean rank of respondents on the basis of income is 180.77 (<6 lakhs), 171.82(between 6-9 lakhs), 166.78(9-12 lakhs) and 190.07 for income more than 12 lakhs. The p-value (0.582) show that the result is not significant. So, it can be concluded that there is no significant difference in the median adoption intention of individual between difference income group as the p-value (0.095) is more than 0.05. Results of Mann-Whitney test show that the mean rank is more in female (180.47) than male (170.29). P-value (0.334) shows that there is no significant difference in the mean adoption rate among respondents on the basis of gender.

From the above table it can be seen that median value is 53 for unmarried/single and 54 for married people. Mean rank is more in case of married people (180.26) than unmarried (148.24). It shows that adoption rate is more among married people. P-value (0.031) shows significant result which proves that adoption

rate is more among married than unmarried people. Mann-Whitney test show that the mean rank is more in case of nuclear family (181.34) than joint family (167.71). P-value (0.200) shows insignificant result. So, it can be concluded that there is no significant difference in the adoption intention of individual on the basis of type of family set up.

### Implications and Conclusions

India is currently the world's second largest telecommunication market with a subscriber base of 1.20 billion and ranks second in terms of number internet subscribers and app downloads globally (ibef.org). Due to the increasing popularity of mobile phone, this medium provides a huge potential for doing commerce. Based on Review of Literature, an attempt has been made to know the possible demographic factors that affect drivers of m-commerce adoption intention. Data were collected from 350 respondents from different sections of the society. The findings showed that there is no significant difference found in the mean adoption intention of individual on the basis of age. Income was not an important factor affecting m-commerce adoption as mobile device and data charges are quite low in India compared to other countries. No significant relation was found in the mean adoption rate of people on the basis of gender. But there was significant difference in the mean adoption of people as per their marital status as adoption rate is more among married people.

The findings of the study demonstrated that in contrast to majority of the research concerning the acceptance of e-commerce and m-commerce, the socio-economic characteristics of the individual namely age, income, occupation, family type and gender hardly had any influence on mobile commerce adoption. The socio-economic characteristics which were considered to play a very important role in the initial stage of adoption decision might have changed as the people might have gained enough experience of this medium of commerce (Gefen et al., 2003). The findings of the study support the opinion of Sun and Zhang (2006) that once an individual become experience with technology, the experience

acquired may nullify the effects of socio-economic characteristics.

The present study has tried to identify the demographic factors that are important for Indian consumers to adopt mobile commerce which would help the marketers while deciding their strategies. This study was focused on people living in Urban area. Due to growing significance of mobile commerce in India especially in Rural area having 70 percent of India's population, a separate study keeping in mind the unique needs of rural people would be quite useful. Despite the fact that sample size was small and area for collecting was restricted to one district of Gujarat, this study had made an attempt to provide some insights into the demographic profile of m-commerce users.

Based on the study the priority segment for companies to consider when launching their marketing campaigns should be that of young married people (both men and women) who are heavy mobile-users, preferably with previous experience of online shopping. Companies

which use Mobile as a shopping channel should be able to offer customised innovative services and contents with added value to improve the adoption rate of m-commerce. Those business houses who want to enter into mobile commerce may find this study useful as it gives insight into the socio-economic details of target group. Service providers and m-commerce vendors can concentrate on these factors while developing business models. The sample of this study consists of only the cellular phone users of Vadodara. The attitudes and behaviour of mobile users may not be same in other areas.

The future researchers can extend this study to other geographical areas. Moreover, the present study fails to capture the changes in the behaviour of people over time. A longitudinal study would be desirable to know the changes in tastes and behaviour of the consumers over time. The future research should investigate the effects of previous experience and level of involvement of users on their adoption intention.

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# 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) (Giovannis 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 Karjaluo, 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 MC usage 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 MC and 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; Zampou 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.,



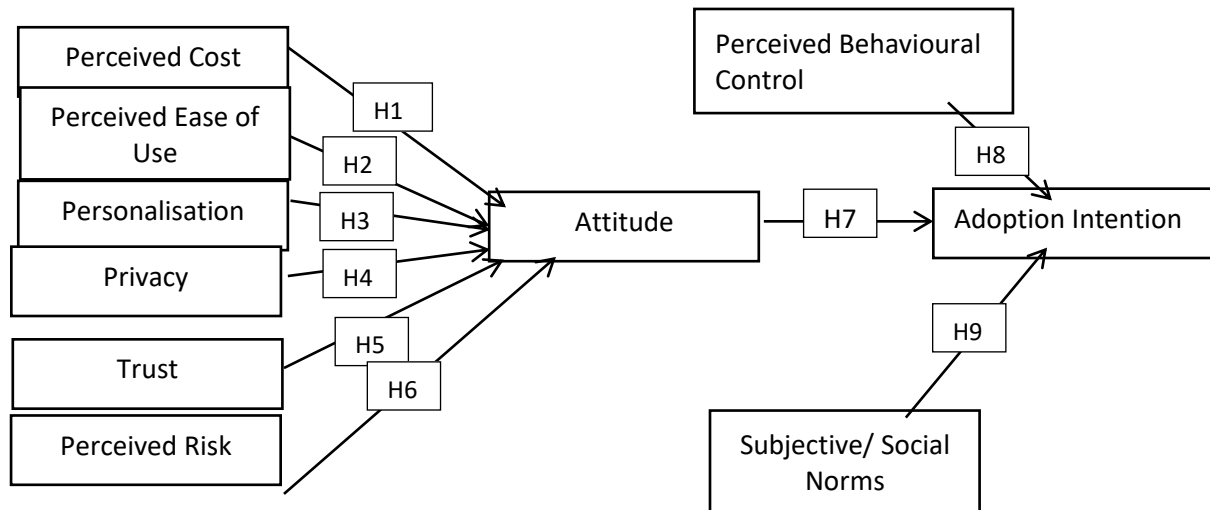
2012; Amin et al., 2008; Venkatesh and Davis, 2000). Among the ten most commonly used predictors that researchers used to measure a user's Behavioural intention to MC adoption, subjective norm, and perceived enjoyment was found to be the most significant (Liébanacabanillas et al., 2017; Zhang et al., 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 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 28.291 per cent of the variance and was found to be less than the threshold limit of 50 per cent (Podsakoff 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.

<b>Table :3: Factor loading, Convergent Validity, Composite Reliability and Cronbach Alpha of the Constructs</b>					
<b>Constructs</b>	<b>Statements</b>	<b>Factor Loading</b>	<b>AVE</b>	<b>Composite Reliability</b>	<b>Cronbach Alpha</b>
<b>Perceived Cost</b>	PC1	0.8717	0.804	0.942	0.922
	PC2	0.8745			
	PC3	0.9205			
	PC4	0.9186			
<b>Perceived Ease of Use</b>	PEOU1	0.9516	0.898	0.946	0.886
	PEOU2	0.9434			
<b>Personalisation</b>	P1	0.8409	0.569	0.796	0.674
	P2	0.6291			
	P3	0.7789			
<b>Privacy</b>	PRY1	0.9222	0.768	0.949	0.949
	PRY2	0.9295			
	PRY3	0.954			
<b>Trust</b>	TRUST1	0.9539	.956	.977	.954
	TRUST2	0.9472			
	TRUST3	0.4238			
<b>Risk</b>	RISK1	0.9438	0.872	0.953	0.927
	RISK2	0.9371			
	RISK3	0.9206			
<b>Attitude</b>	ATTITUDE1	0.8553	0.677	0.893	0.842
	ATTITUDE2	0.8033			
	ATTITUDE3	0.7906			
	ATTITUDE4	0.8407			
<b>Subjective Norm</b>	SN1	1	1	1	1
<b>Perceived Behavioural Control</b>	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			
<b>Adoption</b>	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 0.796 for 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  $\rightarrow$  Attitude, Privacy  $\rightarrow$  Attitude, Personalisation  $\rightarrow$  Attitude, Attitude  $\rightarrow$  Adoption, Perceived Behavioural Control  $\rightarrow$  Adoption, and Trust  $\rightarrow$  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

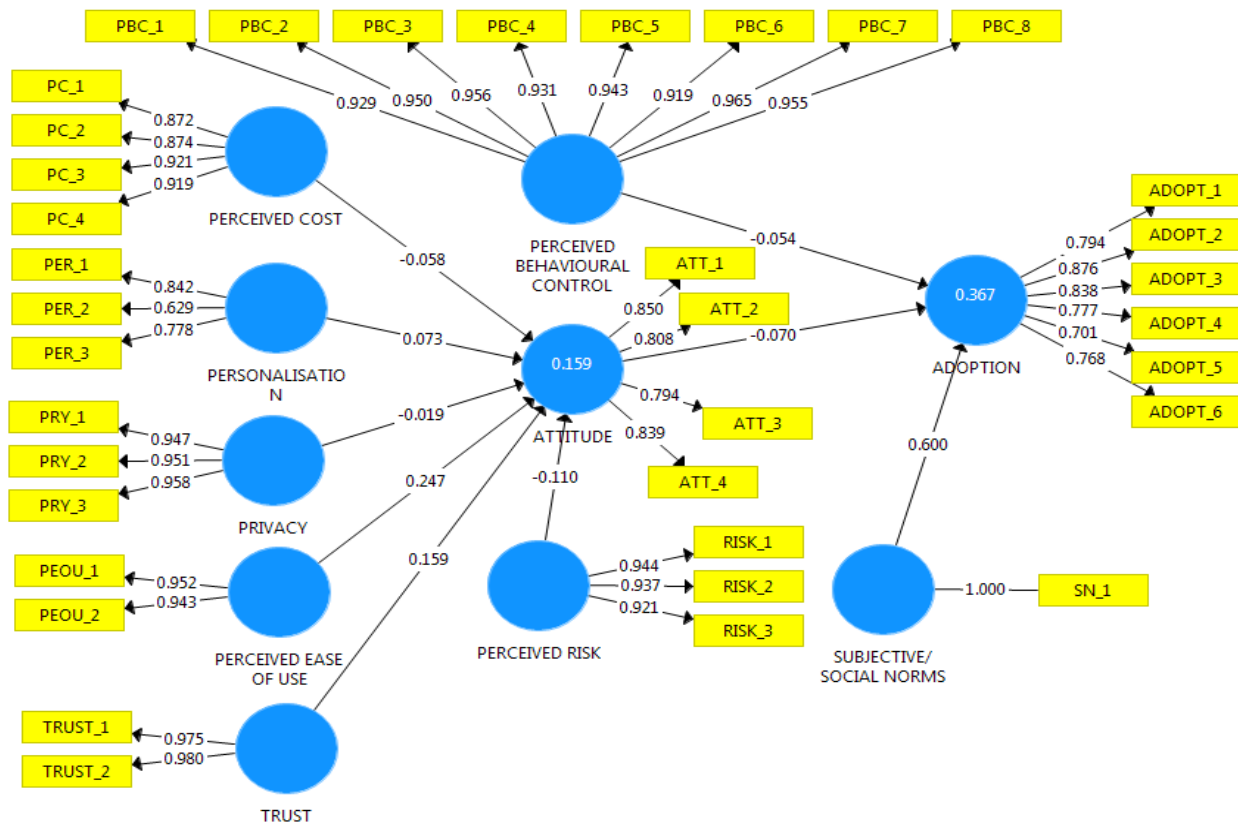
positive attitude among mobile users. Whereas, Subjective Norm was found as a significant predictor of the adoption intention of MC by the mobile users ( $\beta = 0.056$ ) (Table 5). Hence views of other related people for the use of a particular MC application played a major role in the

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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