Mobile Payment Technology Adoption in SME Owners in India – An Empirical Study

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Abstract

This paper focused on mobile payment technology adoption among SME owners in Kanchipuram district in Tamil Nadu, India. It attempted to explore the factors that affected the adoption of mobile payment technology and the intention to use it. The paper sought to identify the issues faced by the SME owners while adopting mobile payment technology for their personal and business transactions. The data were collected using an interview schedule, and the sample comprised of 100 SME owners in the selected rural areas of Kanchipuram district. The primary data were analyzed using regression and correlation analysis. The findings revealed that the mobile payment usage enabled the SME owners to accomplish their work rapidly. The study observed that the factors such as complexity, cost, trust, and security issues derived from perceived ease of use and perceived usefulness had a positive impact on the adoption of mobile payment technology. The study was a novel attempt to empirically examine the factors affecting the mobile payment technology adoption in rural India. The study will be useful for the service providers to advance the critical understanding on how rural consumers can improve their technology adoption and optimize their business opportunities in the emerging market of rural India.

Keywords : **mobile payments, SMEs in rural India, emerging markets, financial technology**

JEL Classification : G2, G5

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The recent demonetization in India affected the rural people adversely. There are many emerging innovative methods for fund transfer through digitalization at a global level. According to World Fact Book, 87% of the world's population (6.8 billion) was using mobile phones in 2013. The mobile payment technology helps the rural economy to adopt some changes within social and cultural trends in the payment system. According to a report published by Stat Counter (tool-traffic), the share of mobile devices (phones and tablets) and their internet usage was 35.3% in 2014. There are some issues and challenges faced by the entrepreneurs in the rural economy while adopting the mobile technology. In addressing the above issue, the present study aims to fulfil the above discussed requirements focusing on various factors that influence the entrepreneurs in adopting mobile technology. The respondents were from various industries such as garments, hotels, stationary, sales, and service

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business at the selected place of the study. This study is an empirical research to analyze and prove the impact of the variables statistically. This study examines the various factors influencing the mobile payment adoption intention of the entrepreneurs. The current study aimed to conduct a questionnaire survey with 100 SMEs in the district of Kanchipuram, Tamil Nadu.

Mobile technologies offer various mobile applications, and are considered to be one of the fastest growing services. Mobile payments are a part of mobile commerce, and these play an important role to mobilize business applications (Dastan & Gurler, 2016). Cost, trust, and privacy risk are the potential factors influencing users' decisions in adopting the mobile payments. Mobile payments will transform the users' spending patterns and payment habits. Mobile technology and internet usage is becoming widespread day by day (Chen & Adams, 2005). Individuals and entrepreneurs can make their payments at their desirable time and place using mobile payments. Recent developments in mobile communication have changed the lives of many SMEs, where entrepreneurship adds great values to the local community and economies. ING's research in 15 countries showed that 56% of the participants from Turkey had made online payment through mobile applications at least once. The mobile payments system is being evaluated as an emerging financial technology in the recent scenario. This paper aims to investigate the factors that affect the adoption of mobile payments and entrepreneurs in the rural areas empirically. The use of mobile payment applications and the potential market for mobile technology demonstrates a vital need to identify and understand the determinants and the usage intentions of SMEs. The theoretical model – technology acceptance model (TAM) is used to determine the consumer acceptance of mobile payments for SMEs.

Literature Review

SMEs are an expression of the creativity of entrepreneurs, which allows new products and new ways of doing business and to add value to an economy and also to improve the quality of life in communities. The potential growth of SMEs depends adversely on the economic base of the rural regions. Hence, rural regions play a major role in economic development of the country.

Bharati and Tarasewich (2002) defined mobile commerce as all activities related to a commercial transaction conducted through communication networks that deal with wireless devices. Mobile technology provides numerous benefits in making the consumer's life easy, accessible, and progressive. The literature review were carried out to figure the current state of mobile payments and to add direction for the research. Mobile payments are a tool used for mobile banking, mobile coupons, as well as for the purchase of goods and services using mobile phones. Venkatesh, Morris, Davis, and Davis (2003) proposed a technology acceptance model and its later versions are the most commonly used models for research on usage intention towards a new technology. The TAM model includes two important factors, perceived usefulness and perceived ease of use, which is used as the major variables, thereby explaining the remaining subsequent sub-variables in the current research. Mobile payment is defined as a system which uses various mobile devices for confirmation of payments (Karnouskos, 2004). Schierz, Schilke, and Wirtz (2010) conducted a survey among 1000 people and stated that the factors affecting the adoption of mobile payment systems were perceived compatibility, usefulness, and ease of use. Yang, Lu, Gupta, Cao, and Zhang (2012) stated that various behavioural beliefs, social influences, and personal traits had a linear and significant influence on the adoption of mobile payment systems. Padmavathy and Adalarasu (2014) stated that trust, ease of use, and expressiveness also affected the adoption of mobile payments. It is implicit from the above stated studies that safety and security of payments are the most important factors in adoption of mobile payments. Authentication, confidentiality, and integrity of data have a positive effect in gaining the trust of people while adopting digital payment methods.

The RBI issued various guidelines for mobile banking transactions in October 2008 to support mobile payments in the country. In order to get rid of fraudulent transactions, a common mobile banking platform was created by National Payments Corporation of India as regulated by RBI. After enactment of these services, 12 million bank customers had registered for mobile banking services. Globally, researchers have viewed internet banking, e-commerce, and similar technologies through the prism of creative technology adoption. Kleijnen, Wetzels, and De Ruyter (2004) studied about wireless finance in Netherlands, and the study stated that normative pressure was significant in the development of people's intention to use wireless finance. The context of technology usage in a workplace found strong role of social influence towards adopting enterprise technologies. Online banking is often used as a new means of banking transactions where social pressure will prevail among bank customers to distinguish themselves from the others (Karjaluoto, Mattila, & Pento, 2002 ; Pikkarainen & Pikkarainen, Karjaluoto, & Pahnila 2004 ; Wang, Wang, Lin, & Tang, 2003).

The report published by FDIC (Federal Deposit Insurance Corporation) estimated that at least 28.3% of U.S households were unbanked. Educating consumers about the benefits of mobile payments are related with consumer demand. On the other hand, consumers will not use mobile payment systems unless merchants accept them (Begonha, Hoffman, & Melin, 2002 ; Contini, Crowe, Merritt, Oliver, & Mott, 2011 ; De Bel & Gaza, 2011). In order to meet sustainable growth rates, mobile network operators and mobile service providers in general, have shifted focus from developed countries to developing countries (Longini & Gaza, 2013). The current study seeks to explore the constructs of Davis's (1989) model empirically among SMEs through the various constructs of perceived usefulness and perceived ease of use of the mobile payments in the rural areas of Kanchipuram district, Tamil Nadu.

Objective of the Study

The objective of the present study is to explore the practice of adoption and usage of mobile payments among the SMEs in the rural areas at Kanchipuram district in India. The study explores the various factors influencing the mobile payments and the intention to adopt mobile payment technology in rural areas and also to identify the issues faced by the SME owners.

Rationale of the Study

Advancements in mobile devices and various internet sources are the drivers of mobile payment systems. The recent demonetization had huge specifications of ATM withdrawal limits, which had serious implications for the economy, which specifically affected the urban and rural areas. To ride the crisis, the government started promoting online transactions, which drive the cashless economy. Bloomberg stated that only 53% Indians have bank accounts, in which most of the accounts have zero balance. However, statistics have revealed that 80% of the people are using mobile phones for many transactions. Hence, it is clear from the literature that the recent demonetization has created the need for exploring the full potential usage of mobile payments among the SMEs in the rural areas. Thus, the current study is adopted to fulfil the gap, and to explore the factors affecting mobile payment adoption in rural areas.

Research Methods

Based on the literature on mobile payments and the other models discussed in the theory of mobile payments, the research questions were drafted. The sampling method adopted here is convenience sampling. The primary data

were collected through an interview schedule. The respondents comprised of 100 mobile payment users among the SMEs in rural areas of Kanchipuram from 2018 – 2019.

Analysis and Results

A majority 42% of the respondents were engaged in textile business followed by hotel business (25%), stationary shop (13%), vegetable shop (5%), etc. The other respondents were owners of book shops, grocery shops, variety stores, furniture shops, juice shops, medical shops, mobile service and sales shops, fancy stores, photocopy shops, tailor shops, and recharge shops.

As can be inferred from Figure 1, the mean age of the respondents is 29.3. Age of the respondents was in the range from 19 – 42 years. Two third of the respondents fell within the age group of 19 – 30 years, which is a productive age, which indicates that younger generation is attracted towards taking up entrepreneurship.

From the Figure 2, it is inferred that two third of the respondents (65%) were male entrepreneurs, which indicates that female representation is still low for SMEs.

Figure 1. ***Age of the Respondents***

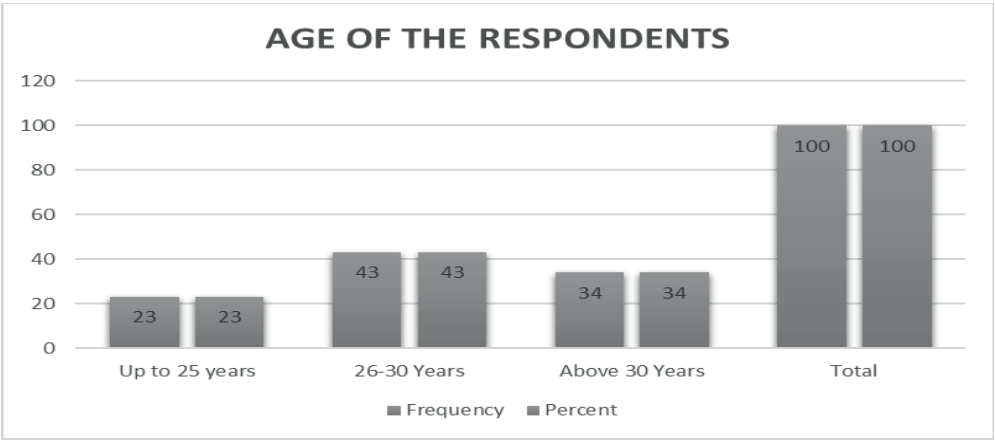


Figure 2. ***Gender of the Respondents***

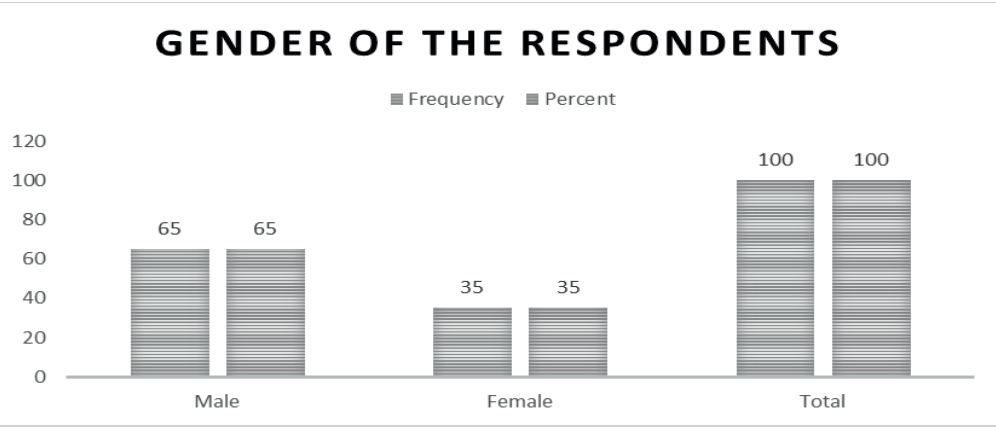


Figure 3. ***Educational Qualifications of the Respondents***

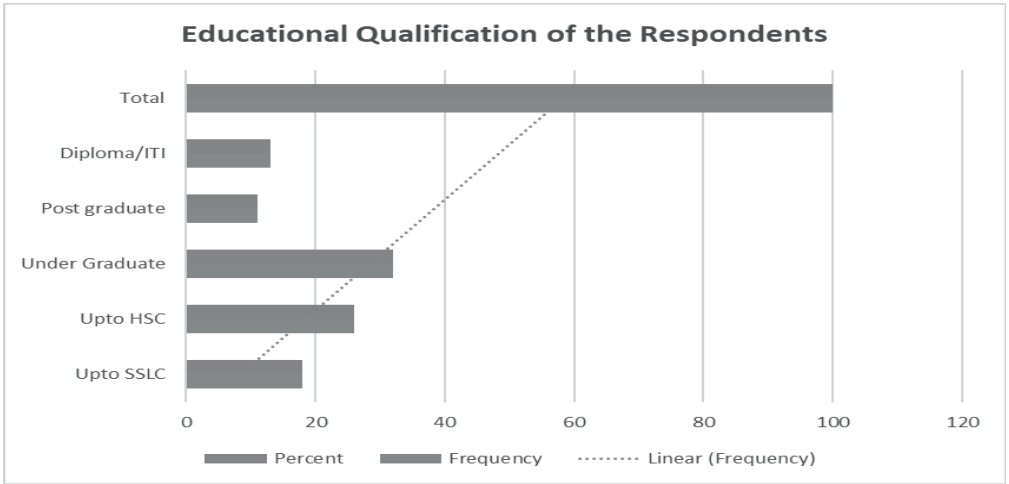


Figure 3 followed by Table 1 states that more than 50% of the respondents had completed their higher education. Further, while doing a cross - tab analysis, it is found that among the respondents who were within the age group of 30 years, two third of them had completed their higher education. In addition, the chi-square analysis proves that there is a significant association between the age of the entrepreneurs and their educational qualification at the

Table 1. ***Cross Tabulation for Educational Qualifications with Age of the Respondents***

S. No.	Educational Qualifications	Age of the Respondents			Total	Chi-Square Value	*p* - value
		Up to 25 years	26–30 years	Above 30 years			
1	Upto SSLC	4	4	10	18	**17.784**	**.023***
		(22.2%)	(22.2%)	55.6%	(100.0%)		
		(17.4%)	(9.3%)	(29.4%)	(18.0%)		
2	Upto HSC	6	7	13	26		
		(23.1%)	(26.9%)	(50.0%)	(100.0%)		
		(26.1%)	(16.3%)	(38.2%)	(26.0%)		
3	Under Graduate	8	16	8	32		
		(25.0%)	(50.0%)	(25.0%)	(100.0%)		
		(34.8%)	(37.2%)	(23.5%)	(32.0%)		
4	Post Graduate	1	9	1	11		
		(9.1%)	(81.8%)	(9.1%)	(100.0%)		
		(4.3%)	(20.9%)	(2.9%)	(11.0%)		
5	Diploma/ITI	4	7	2	13		
		(30.8%)	(53.8%)	(15.4%)	(100.0%)		
		(17.4%)	(16.3%)	(5.9%)	(13.0%)		
	Total	23	43	34	100		
		(23.0%)	(43.0%)	(34.0%)	(100.0%)		
		(100.0%)	(100.0%)	(100.0%)	(100.0%)		

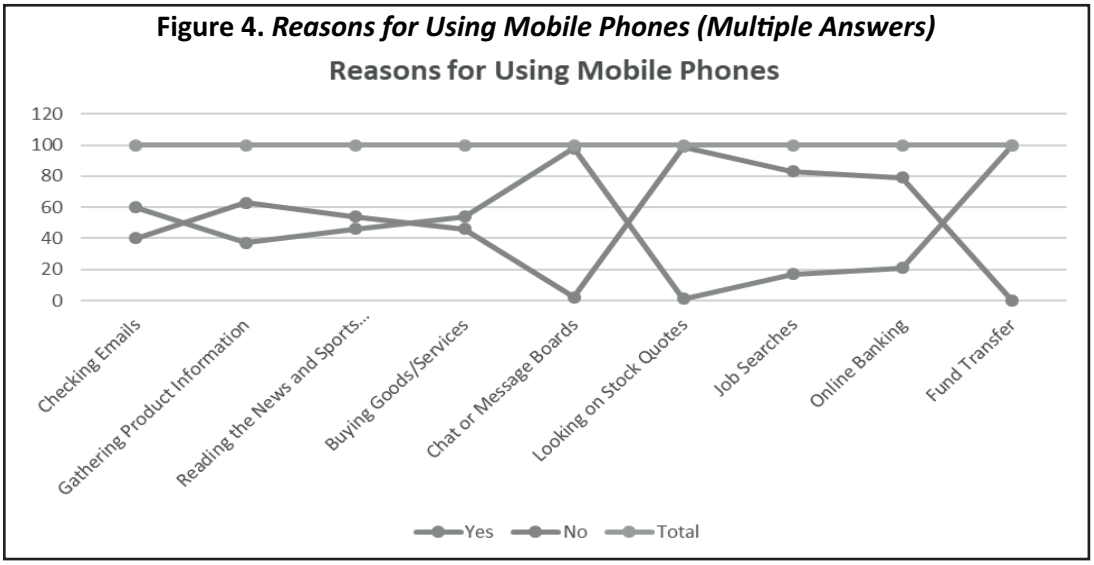
Note. *Significant at the 0.05 level.

0.05 level. Since the calculated value (17.784) is more than the expected value (17.535) for the degrees of freedom (8), one can confidently conclude that the younger entrepreneurs were better educated. Further, this result indicates that educated youth are attracted towards taking up entrepreneurial initiatives. As India is an emerging economy, the entrepreneurial initiatives from the educated youth are a good sign for the country's development.

Reasons for Using Mobile Phones

All the entrepreneurs stated that they used mobile phones for fund transfer (Figure 4). Next to fund transfer, 98% of the entrepreneurs used their mobile phones for chatting and messaging, 60% of the SME owners used their mobile phones for checking emails, buying goods and services (54%), reading news (46%), gathering product information (37%), online banking (21%), and searching for jobs (17%). Among the reasons asked for using mobile phones, the least used option was : looking up stock quotes, and only 1% of the SME owners used their mobile phones for looking up stock quotes.

Figure 4. ***Reasons for Using Mobile Phones (Multiple Answers)***



Forty percent of the SME owners said that they used mobile phones for watching YouTube videos. YouTube was used for watching comedy, TV serials, movie and album songs, cricket, cartoons, live news, movie reviews, TikTok, and for learning skills such as to cook, make jewellery, and draw rangoli. Another 17% used mobile phones for playing games like PUBG, online games, and cards. The other reasons for using mobile phones are internet search to know the unknown, Google surfing, and for using social media like WhatsApp and Facebook.

It can be inferred from Figure 5 that a majority (73%) of the SME owners used mobile payment technology for buying movie, air, and train tickets ; 61% of them used mobile payments for utility bill payments such as electricity bill, mobile recharge, and for paying government tax. More than fifty percent (54%) used mobile payments for buying goods and services, and 17% used the same for paying insurance. The other purpose is that 24% of the SME owners used mobile payment technology for money transfer from the customers while selling the products. The various financial apps or money transfer apps used by the SME owners are PhonePe, Paytm, and Google Pay.

None of the SME owners used mobile technology for share trading. This result raises questions like are the SME owners not interested in share trading? On the other hand, has share trading not yet reached the SMEs ?

Figure 6 represents that a majority of 73% percent of the SME owners stated that mobile payments enabled

Figure 5. ***Purpose of Using Mobile Payment Technology (Multiple Answers)***

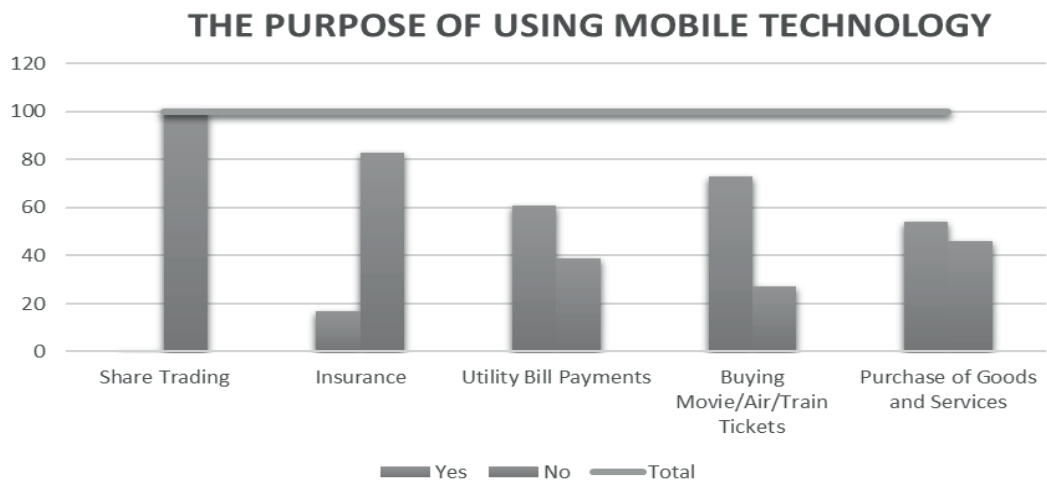
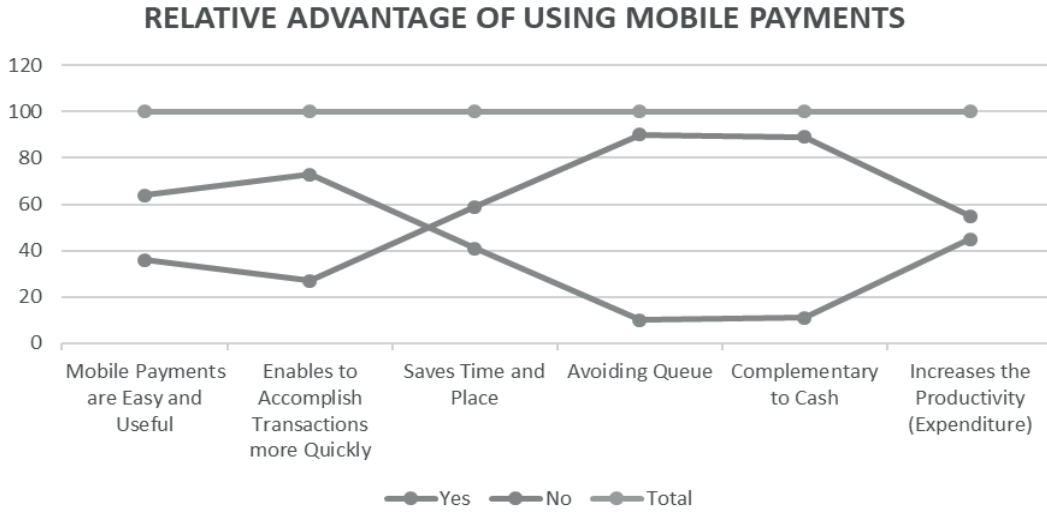


Figure 6. ***Relative Advantage of Using Mobile Payments (Multiple Answers)***



them to accomplish transactions more quickly followed by 64% of the respondents, who stated that it is very easy and useful. The other advantages of mobile payments are that these increased the productivity by reducing the expenditure (45%), saved time and place of travel (41%), enabled to get complementary cash (11%), and helped to avoid queue (10%).

In addition, 10% of the SME owners said that they were able to save money by using mobile technology for financial transactions in the form of rewards from the money transfer tech companies (Google Pay rewards) where there will be no petty cash problem.

Issues Faced While Performing Mobile Transactions

From Table 2, it is inferred that 65% of the SME owners faced problems out of complex SMS formats while using

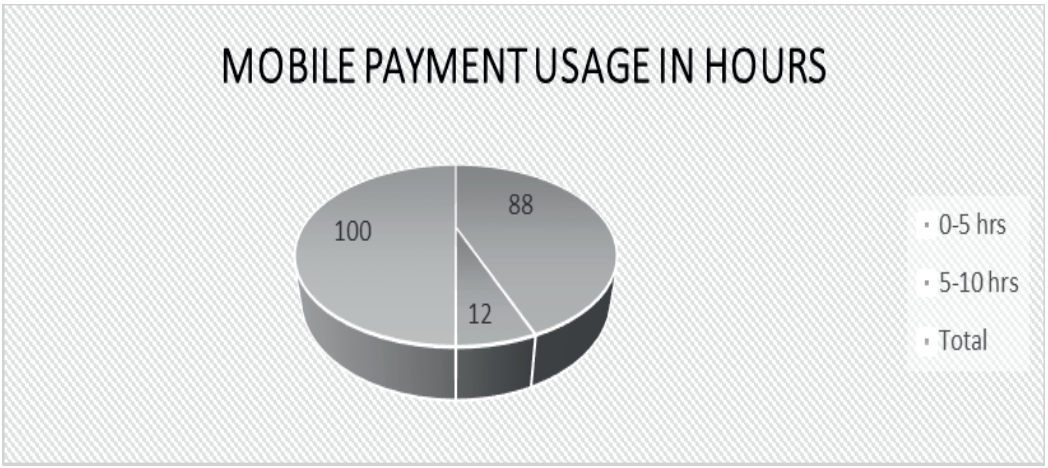
Table 2. ***Issues Faced While Performing Mobile Transactions (Multiple Answers)***

S. No.	Issues Faced	Yes	No	Total	Mean Score of Usage level	*S.D.*
1	Complex SMS formats	65	35	100	4.34	.815
2	Undesirable codes	10	90	100	4.60	.699
3	Service numbers	18	82	100	4.39	.778
4	Complex registration procedures	27	73	100	4.63	.629
5	Management of separate accounts	7	93	100	4.29	.951

mobile transactions followed by complex registration procedures (27%), service numbers (18%), undesirable codes (10%), and management of separate accounts (7%). The other problems included OTP SMS problem, language of the SMS, and forced use of bank app. One of the SME owners said that since the SMSs are sent in English, he found these difficult to read. Instead, that entrepreneur preferred SMSs in local language. Another said that since entrepreneurs did not know how to use other apps like TEZ, PhonePe, etc., he was forced to use the bank app, which he was not very comfortable to use ; 10% of the SMEs opined that they did not face any problem.

Furthermore, while comparing the mean score of usage level of mobile payments among the people who faced the above - mentioned issues, as the mean scores are high, which indicates that the issues did not have much effect on the usage level. Therefore, one can conclude that in spite of the issues faced, the SME owners struggled to adapt to the environment of the digital era.

Figure 7. ***Number of Hours Used for Mobile Payments per Week (Multiple Answers)***



Number of Hours Used for Mobile Payments per Week

The Figure 7 reveals that majority (88%) of the SME owners used mobile phones for mobile payments for upto 5 hours per week. The remaining 12% used mobile phones for mobile payments for upto 10 hours per week.

Ease of Use

As mentioned in Table 3, with regard to ease of use, 57% of the respondents experienced ease of operation

Table 3. ***Ease of Use (Multiple Answers)***

S. No.	Ease of Use	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Mobile payment services are clear and understandable.	38	62	100	4.63	.633
2	Improves my mobile payments skills.	39	61	100	4.38	.782
3	Easy to operate.	57	43	100	4.21	.861

followed by 39%, who stated that their mobile payments skills had improved ; and 38% opined that the mobile payment services they used were clear and understandable.

The mean score (4.63) of the usage level of mobile payment technology indicates that among the variables under the ease of use, the clarity and understanding nature of mobile payment services provided increased the usage level of mobile technology than the others.

Social Influence

Table 4 depicts that a majority (79%) of the SME owners adopted mobile payment technology by getting influenced by others and neighbours followed by the social influences like consideration of individuals that adoption of mobile payment technology is a prestigious activity (31%) and the support of banks (13%). The other influences are advertisements and self-interest.

Table 4. ***Social Influence (Multiple Answers)***

S. No.	Social Influence	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Getting influenced by others and neighbours.	79	21	100	4.28	.831
2	Supported by banks.	13	87	100	4.54	.660
3	Influenced as it is considered as a prestigious activity.	31	69	100	4.55	.768

The means scores indicate that although a majority of the SME owners adopted the usage of mobile payments due to the influence of others and neighbours (4.28), the usage level of mobile technology increased only through the consideration of individuals or individual efforts (4.55), and bank's support (4.54).

Facilitating Conditions

Table 5 states that compatibility acted as a facilitating condition for the use of mobile payments for 61 SME owners followed by knowledge (36), resources (34), and online assistance (24). However, the mean score indicates that the facilitating conditions such as the availability of resources (4.62) and online assistance (4.58) also increased the usage level of mobile payment technology.

Kind of Expenses/Cost Incurred During Online Transactions

From Table 6, it can be inferred that service tax was incurred by 53% of the SME owners followed by service

Table 5. ***Facilitating Conditions (Multiple Answers)***

S. No.	Facilitating Conditions	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Resources	34	66	100	4.62	.697
2	Knowledge	36	64	100	4.33	.894
3	Compatible	61	39	100	4.28	.819
4	Online Assistance	24	76	100	4.58	.717

Table 6. ***Kind of Expenses/Cost Incurred (Multiple Answers)***

S. No.	Kind of Expenses/ Cost Incurred	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Premium pricing	14	86	100	4.36	.929
2	Service charges	47	53	100	4.55	.686
3	Service tax	53	47	100	4.57	.721

Table 7. ***Service Providing Sectors***

S. No.	Sectors	Frequency	Percent
1	Private service providers	69	69.0
2	Both private and government service providers	31	31.0
	Total	**100**	**100.0**

charges (47%) and premium pricing (14%). The other expense incurred by the SME owners was high amount of GST. However, 20% of the SME owners did not incur any expenses during transactions. The mean score shows that among the expenses, the expenses on premium pricing (4.36) reduced usage level of mobile payment technology when compared to other expenses.

Trustworthy Service Providers

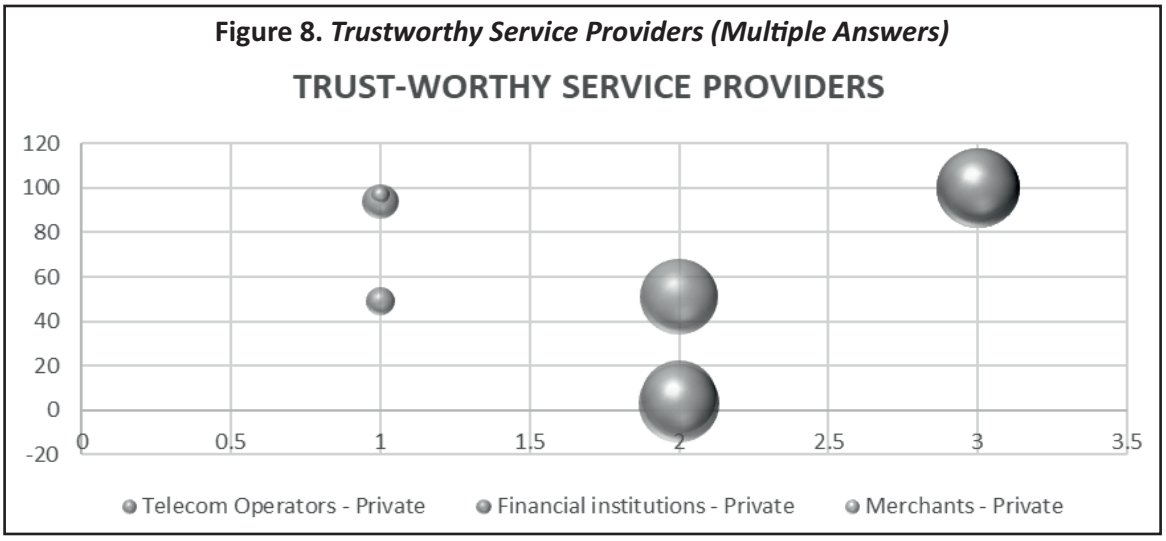
From Table 7, it is clear that two - third of the SME owners trusted the private services providers alone. Only 31% of the SME owners stated that they trusted both government and private service providers. It is a must to note that not even a single entrepreneur opined that he/she trusted government services providers alone. This data challenges the government service providers to revamp the service institutions in competition with the private ones.

It is understood from Figure 8 that the private merchants won the trust of the SME owners the most (97%) followed by private operators (94%) and private financial institutions (49%). However, with regard to government service providers, less than one fifth of the SMEs trusted them. Government operators were trusted by 18% of the SME owners followed by government financial institutions (12%) and government merchants (5%).

Causes of Fear While Using Mobile Payment Technology

It is inferred from Table 8 that a majority (84%) of the SME owners stated that they had fear of online errors

Figure 8. ***Trustworthy Service Providers (Multiple Answers)***



followed by nearly one fourth (24%) of them, who had the fear of tapping the wrong information. Just 9% of the SME owners had the fear of losing online pins. Although the fear of losing the online pins was faced by few entrepreneurs, while comparing the mean scores of usage level of mobile payments with the above - mentioned three fears, this fear reduced the respondents' usage of mobile payment apps.

Table 8. ***Causes of Fear While Using Mobile Payments (Multiple Answers)***

S. No.	Kind of Fear	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Fear of online errors	84	16	100	4.42	.764
2	Tapping the wrong info	24	76	100	4.38	.824
3	Fear of losing pins	09	91	100	4.00	1.000

Figure 9. ***Kind of Security Risks Faced (Multiple Answers)***

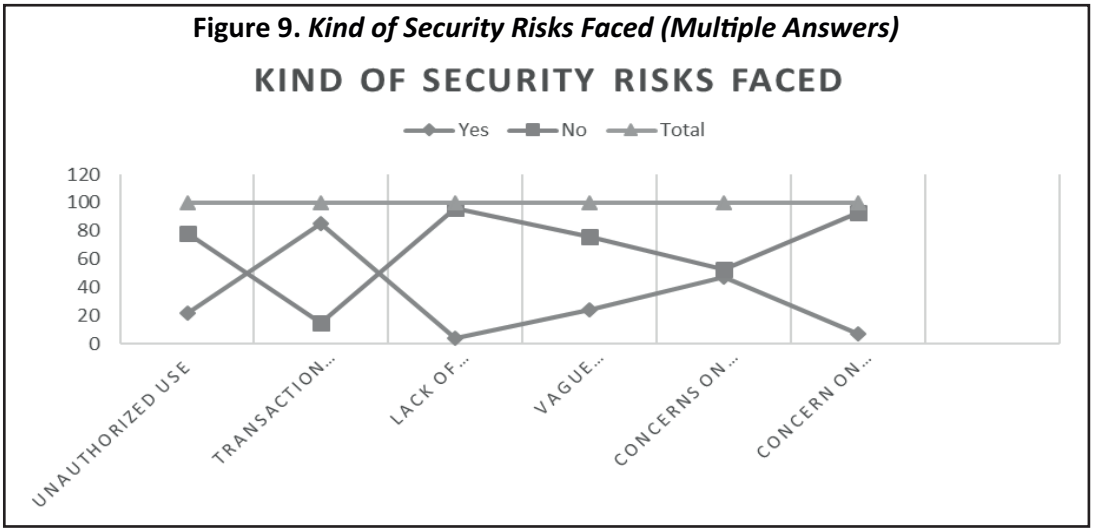


Table 9. *Privacy Risk - Kind of Risks Faced (Multiple Answers)*

S. No.	Kind of Privacy Risks	Yes	No	Total	Mean Score of Usage Level	*S.D.*
1	Sharing of personal info by bankers	67	33	100	4.37	.775
2	Increase of spam messages	29	71	100	4.76	.577
3	Threatened by unsolicited calls	29	71	100	4.21	.902

From Figure 9, it is inferred that a majority (85%) of the SME owners faced transaction errors. Nearly fifty percent (47%) of them faced the risk concerned with device and network reliability. Nearly one fourth of the entrepreneurs faced the risks of vague transactions (24%) and unauthorized use. Seven percent of the entrepreneurs faced the risk of concern on privacy and a very few (4%) entrepreneurs faced the risk of lack of transaction records and documentation.

From Table 9, it is represented that two third (67%) of the SME owners faced the privacy risk, where bankers shared their personal information with others. An equal number (29%) of entrepreneurs faced the risk of increasing spam messages and threatened by unsolicited calls. Among privacy, the risk of threatened by unsolicited calls (4.21) reduced the usage level of mobile technology followed by the risk of sharing personal info by bankers (4.37). Nine percent of the respondents said that they did not face any privacy risk.

Usage Level of Mobile Technology

The usage level of mobile technology is measured on a five point scale, where 1 = *Never use*, 2 = *Rarely use*, 3 = *Occasionally use*, 4 = *Almost every time,* and 5 = *Every time*. The higher the mean score, the better the usage level.

Table 10 indicates that all the SME owners used mobile payment technology. The mean score for the overall usage level is 4.32, which is closer to 5. This indicates that the usage level of mobile technology among SME owners was very high.

Table 10. *Level of Usage*

S. No.	Usage Level	Frequency	Percent	Mean Score	*S.D.*
1	*Use occasionally*	22	22.0	4.32	.815
2	*Almost every time*	24	24.0		
3	*Every time*	54	54.0		
	Total	**100**	**100.0**		

Further, *t* - test and ANOVA test are used to ascertain the significant differences in the usage level of mobile technology based on the demographic profile (gender, age, and educational qualification) of the SME owners.

While analyzing the usage level of mobile payment technology based on gender, there is no significant difference between male and female SME owners. This result indicates gender equality in usage of mobile technology.

The ANOVA results on the usage of mobile technology based on the age of respondents shows that there is a significant difference in the usage level at the 0.01 level. Further, while analyzing the mean score between the age groups, it is found that the younger age group SME owners increasingly used the mobile payment technology. As the age increased, the usage level of mobile payment technology decreased among the SME owners.

Table 11. ***Mean Difference Analysis (t-test/ANOVA) on the Mobile Technology Usage Level Based on Demographic Profile of the SME Owners***

	Demographic Profile	*N*	Mean	*S.D.*	*t/F* values	*p* - values
Level of Usage	**Gender**					
	Male	65	4.32	.793	**.051**	**.959**
	Female	35	4.31	.867		
	Total	**100**	**4.31**	**.830**		
	Age					
	Up to 25 years	23	4.74	.449	**6.298**	**.003****
	26–30 years	43	4.35	.842		
	Above 30 years	34	4.00	.853		
	Total	**100**	**4.32**	**.815**		
	Educational Qualification					
	Upto SSLC	18	3.94	.802	**3.409**	**.012***
	Upto HSC	26	4.08	.891		
	Under Graduate	32	4.66	.602		
	Post Graduate	11	4.55	.820		
	Diploma/ITI	13	4.31	.855		
	Total	**100**	**4.32**	**.815**		

Note. **Significant at 0.01 level ; *Significant at 0.05 level.

The ANOVA test results (Table 11) on the usage level of mobile technology based on the educational qualifications show that there is a significant difference in the usage level at the 0.05 level. While analyzing the mean scores, it is found that the usage level was higher among the respondents who had completed higher education. So, we confidently conclude that higher the educational qualifications, the higher will be the usage of mobile payment technology.

Level of Perceived Usefulness

The perception of SMEs on the usefulness of using mobile technology is measured on a 5 - point scale, where 1 = *not at all*, 2 = *a little*, 3 = *to a certain extent*, 4 = *much*, and 5 = *very much*. The higher the mean score, the better is the perception on usefulness. The mean score of 3.94, which is closer to 4, indicates that the SME owners' perception on the usefulness of mobile payment technology was high (Table 12).

Level of Perceived Ease of Use

The level of perceived ease of use is measured on a 5-point scale, where 1 = *not at all easy*, 2 = *a little*, 3 = *to a*

Table 12. ***Level of Perceived Usefulness***

S. No.	Usefulness Level	Frequency	Percent	Mean Score	*S.D.*
1	*To a certain extent*	27	27.0	**3.94**	**.693**
2	*Much*	52	52.0		
3	*Very much*	21	21.0		
	Total	**100**	**100.0**		

Table 13. *Level of Perceived Ease of Use of Mobile Technology*

S. No.	Level of Perceived Ease of Use	Frequency	Percent	Mean Score	*S.D.*
1	*A little*	2	2.0	**4.27**	**.790**
2	*To a certain extent*	15	15.0		
3	*Much*	37	37.0		
4	*Very much*	46	46.0		
	Total	**100**	**100.0**		

certain extent, 4 = *much*, and 5 = *very much*. The higher the mean score, the higher the perceived ease of use of mobile technology.

Table 13 depicts that majority of the SME owners experienced ease of use while using mobile technology for mobile payments. As the mean score (4.27) is closer to 5, the perceived ease of use of mobile payment technology among SME owners was very high.

Regression Analysis for Usage Level of Mobile Payment Technology Based on Perceived Usefulness and Perceived Ease of Use of Mobile Technology

Further, a regression analysis is carried out to analyze the relationship between the level of usage and the level of perceived usefulness & the level of perceived ease of use of mobile payment technology and to find out the influence of perceived usefulness and perceived ease of use on the usage level of mobile payment technology.

Dependent variable : Usage level of mobile technology *(Y)*

Independent variables : 1. Constant *(C)*
2. Perceived Usefulness (X_1)
3. Perceived Ease of Use (X_2)

Multiple *R*-value : 0.744

R - square value : 0.554

Adjusted *R* - square value : 0.544

Std. error of the estimate : 0.550

F - value : 60.171

P - value : 0.000^{**}

The multiple correlation coefficient is 0.744 (Table 14), which reveals that the relationship between usage level of mobile payment technology and the relative advantage of mobile payment technology is high and positive.

The coefficient of determination (*R*-square) measures the goodness-of-fit of the estimated sample regression plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. The value of *R* - square is 0.554, which means that about 55.4% of the variation in adjustment is explained by the estimated SRP that uses relative advantage of mobile payment technology as the independent variable and *R* - square value is significant at the 0.01 level.

The multiple regression equation is :

Table 14. ***Regression Analysis for Usage Level of Mobile Technology Based on Perceived Usefulness and Perceived Ease of Use***

S. No.	Factors	Unstandardized Coefficients		Standardized Coefficients	*t*-values	*p*-values
		B	Std. Error	Beta		
1	(Constant)	.347	.383		.906	.367
2	Perceived Usefulness	.324	.084	.276	3.866	.000**
3	Perceived Ease of Use	.632	.074	.612	8.587	.000**

Note. **Significant at 0.01 level.

Usage Level of Mobile Technology $(Y) = .347(C) + .324\,(X_1) + .632(X_2)$

Therefore, one can conclude that the SME owners' perceived usefulness and perceived ease of use of mobile payment technology influences the usage level of the same technology at 55.4% level. Further, while comparing among independent variables, the perceived ease of use has more influence than the perceived usefulness on the use of technology. If the SME owners experience usefulness and ease of use while using the mobile payment technology, it will increase the usage level of the same among them.

Discussion

Puri (2014) stated that the increase in mobile payment technology in rural India has increased the opportunities for small businesses in that region. He stated that mobile services can be tapped into rural economies, which comprised of approximately 70% of the country's total economy (as cited in Brachmann, 2014). Arvidsson (2014) stated that with these advances in financial situations, the rural population is now capable of opening a bank account and build credit scores. There are many emerging innovative methods for fund transfer through digitalization at a global level. The payment tools comprise of various new methods, which are substantially different from past transactions (as cited in Brachmann, 2014). Mobile payment technology helps the rural economy to adopt some changes within social and cultural trends in the payment system. The study used two main variables of Davis (1989) such as perceived usefulness and perceived ease of use. Perceived usefulness and perceived ease of use of mobile payment technology adoption have been empirically tested in the current study, and the findings are observed to be consistent with the results obtained by earlier studies on mobile payment adoption (Apanasevic, Markendahl, & Aravidsson, 2016 ; Chen, 2008 ; Kim, Mirusmonov, & Lee, 2010 ; Pousttchi & Wiedemann, 2007 ; Narayanaswamy & Muthulakshmi, 2017). It is understood that perceived usefulness had a great impact on the SME owners' intention to adopt the mobile payment technology.

The study states that the usage level of mobile technology is significantly affected due to the age and educational qualifications of the entrepreneurs. The findings reveal that the mobile payment usage enabled the SME owners to accomplish their work quickly. Furthermore, it is found that complex SMS formats were a major issue faced by the respondents. The study identifies some fear and security issues faced by the SME owners, that is, online and transactional errors encountered in the usage of mobile technology. The present study emphasizes on the factors such as complexity, cost, trust, and security which are derived from perceived ease of use and perceived usefulness and had an impact on the consumers' usage of mobile payment technology.

The findings reveal that the SME owners faced some difficulties in adopting the technological changes. This research is similar to earlier studies on M-payment adoption (Chen, 2008 ; Duane, O'Reilly, & Andreev, 2014 ;

Kim et al., 2010 ; Pousttchi & Wiedemann, 2007 ; Zhou, 2013). Perceived ease of use has a significant impact on the complexities in using the technology as well as the other factors like cost, trust, and risk pertaining to safety and security. It is found that the users will adopt the changes only when they are comfortable enough to handle them. It is revealed that the SME owners were not much aware of various technologies available since they lived in remote rural areas. Mallat (2007) stated that consumer trust was an important factor while adopting mobile payment technology. Other studies like Arvidsson (2014) ; Rajeswari and Ravilochanan (2014) ; Yan, Md-Nor, Abu - Shanab, and Sutanonpaiboon (2009) ; and Zhou (2011) also obtained similar findings. The literature on trust indicates that service providers play a major role in providing quality services to consumers, which helps them to keep up the trust. If a service provider lacks in service, then the consumer will also not develop trust in adopting the mobile services.

Suggestions, Conclusion, and Implications

Mobile payment technology has grabbed the attention among various customers globally. It has transformed into one of the alternative financial transaction systems not only in India, but also in other countries. So far, there are only few studies available on mobile payment technology adoption in India, especially among SMEs in rural areas. This empirical study was conducted to ascertain the various factors which affected mobile payment adoption among the SMEs in rural areas. The findings suggest that factors such as perceived ease of use and perceived usefulness have an impact on the consumer behaviour towards the adoption of mobile payment technology, and perceived ease of use plays a major role in the adoption intention. The process of connecting the rural economy through internet, smartphones, and other mobile technologies enables the accessibility to enter into the capital and trade market, which makes the trading activities easy and faster. This implies that the accessibility towards important market information allows the rural SMEs to increase their production efficiency in the emerging market and also enables to improve their payment options.

The current research will help the service providers to enable themselves with various user-centric factors, and guide them to take strategic decisions. The organizations will get to know about the consumer choices with respect to rural areas, which would increase their sense of awareness towards adoption of mobile payment technology. The current study will also help the government in implementing measures for going toward a cashless economy and enable widespread financial inclusion.

Limitations of the Study and Scope for Further Research

The study could not address issues other than the rural areas with respect to the adoption of mobile payment technology. The study is an empirical research conducted among the SME owners in rural areas, and hence, the research results lack in generalizability. Therefore, further research is encouraged to test the findings with extended models in various enterprises in different sectors in various urban and rural regions.

Authors' Contribution

Dr. J. Navena Nesa Kumari conceived the idea and developed qualitative and quantitative design to undertake the empirical study. She extracted the research papers with high repute, filtered those based on keywords, and generated concepts and codes relevant to the study design. Dr. C. Joe Arun verified the analytical methods and supervised the study. The interviews were conducted by Dr. J. Navena Nesa Kumari and Dr. A. Irudaya Veni Mary, some in colloquial language and some in English. The same were further transcripted and translated into English.

The numerical computations were done by Dr. A. Irudaya Veni Mary using SPSS 20.0. Dr. J. Navena Nesa Kumari wrote the manuscript in consultation with both the authors.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter, or materials discussed in this manuscript.

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