

# A Study on the usage of E-Payment System and its Influence to Digital Financial Inclusion in Coimbatore District, Tamil Nadu

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## Article Info

Volume 83

Page Number: 2057 - 2066

Publication Issue:

May - June 2020

## Abstract:

This study investigates the usage of e-payment system among bank account holders in Coimbatore district, Tamil Nadu and how it influences digital financial inclusion in the study area. Using simple random sampling, this study collected data from 390 respondents. One-Way Analysis of Variance with Tukey's HSD post-hoc test and Pearson's Chi Square test were used to analyse the data. This study resulted that there is a significant difference between age groups 18 to 41 and 42 and above on frequency of usage of debit and credit card. In case of internet and mobile banking, except age groups 26 to 41, other age group respondents shown a significant difference in usage frequency. It is further found that device users are more in the age group of 18 to 25, which are salaried and the highly preferred device is mobile phone for frequent use for e-payment. Further more than 50% of the respondents said that they have stored their password information in their device. So, they are prone to Novelty risks, Agent-related risks, and Digital-technology related risks. From the study it is evident that the study area is too far from digital financial inclusion and it is the responsibility of the bank account holders to use e-payment system for speedy, secured and smooth transaction.

**Keywords:** e-payment system; usage; digital financial inclusion; Coimbatore district

## Article History

Article Received: 11 August 2019

Revised: 18 November 2019

Accepted: 23 January 2020

Publication: 10 May 2020

## I. Introduction and literature review

Financial inclusion has been achieving its milestones from its inception since the year 2014. The important phase of financial inclusion is to bring in the global population into banking. Accordingly, the adult bank account holders were risen to 515 million between 2014 and 2017. However, the World Bank data speaks about the rise in the bank account holders and it is still a doubt whether they are financially included. The data reveals that adults of 1.7 billion are still financially excluded and such exclusion prevails.

To identify the position of digital financial inclusion status, e-payment system plays a core role in the country. This study has considered the usage of e-payment system and to know the influence of such system to digital financial inclusion. This

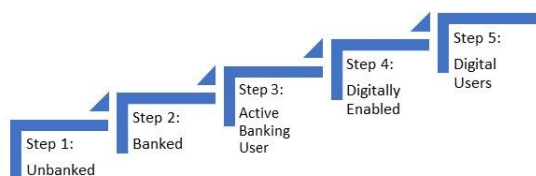
study is limited to bank account holders of Coimbatore city in the state of Tamil Nadu, India.

The emerge of e-payment system in India has the following reasons:

- i. There is an uncontrollable increase in the number of mobile phone users and the number of subscribers in various telecom networks has also increased (Vaidhya (2020); Stalin et al. (2016); Singh, (2008)).
- ii. The usage of e-retail websites like amazon.in, flipkart.com, snapdeal.com, and tatacliq.com has tremendously increased (Aeron et al., 2019)
- iii. The provision of 4G services and daily internet data packs for mobile subscribers by all telecom providers (Khandker & Joshi, 2019)
- iv. Announcement of demonetization in the country made 1,000 and 500 rupees invalid

From the aforesaid reasons, it is evident that the users and potential users of e-payment system are increased in India. To become financially included was a prime motive for the government among people when the Indian Prime Minister Mr. Narendra Modi initiated a scheme named “Pradhan Mantri Jan Dhan Yojana” in the year 2014. During November 2016, the government made a great unexpected announcement on demonetization, which induced people to use e-payment system regularly.

After these progresses, the focus on financial inclusion insisted more on digital banking rather than brick and mortar - conventional banking. To understand this context, the Reserve Bank of India constituted a High-Level Committee on Deepening of Digital Payments and the committee has submitted a report in the year 2019, in which, they explained about the process of reaching digital financial inclusion (High Level Committee on Deepening of Digital Payments, 2019). The process is diagrammatically illustrated below:



Source: Report on High Level Committee on Deepening of Digital Payments, 2019, RBI

**Fig 1 Process to achieve digital financial inclusion**

The diagram (fig 1) represented above starts with the initial step named ‘unbanked’ and ends with digital users as the final step. Shaikh and Shah (2020) reported that 80% of the Indian population is banked, that is, such percent has already crossed from step 1 to step 2.

However, Agarwal and Kavishwar (2020) has claimed in their research that 48% of bank account holders in India is not actively using their account for financial transactions. As per their report, it is clear that less than 50% are active bank account users in the country.

Though government is working hard to enable inactive users into active bank account users, it is a need to push the entire population into digital platform to avoid microissues like as time delay and human error in transactions, and macro problems such as transfer of unaccounted money, counterfeit transactions and bribery.

To know the actual status of e-payment system of various regions and people, the survey on literatures were conducted. From that the following are discussed:

Globally, e-payment systems are adopted by many countries, especially the developed nations are using such payment system for more than three decades. E-payment systems were developed in 1990s as alternative payment channels to make payments over internet and to develop e-commerce (Shaikh et al., 2017).

People believe e-payment system because of the speedy performance of financial transactions, which could be monetary and non-monetary as well. A study found that trust and security are considered as most important factors in e-payment system (Barkhordari et al., 2017).

E-payment or digital payment system is useful in many industries. It could be used in a retail industry, banking industry, telecommunication industry and education industry as well. A study conducted by Salloum et al. (2019) resulted that there is updated information on payment made by the students and there are factors affected by e-payment system such as perceived benefit, perceived risk, trust, privacy and performance expectancy. The authors used partial least square - structural equation modelling to analyse the result.

Hamid and Cheng (2020) conducted a study among Malaysian adults on the risks involved on usage of electronic payment systems and the usage of different payment methods using Technology Acceptance Model (TAM). The study was resulted in less significance of risk when compared with the volume of transactions and high significant difference between risk and cash transactions.

The increase in mobile phones made digital payment system easy to undergo. A study was

conducted by Omotubora and Basu (2018) on m-payments using 12 organizational models and has reviewed 64 mobile applications that facilitates to access m-payments. The study focused on security, ease of access and efficiency of mobile apps to carry out transaction in a smooth and transparent manner.

Chen et al., (2018) conducted a study on usage of e-payment among Japanese youngsters using TAM. They found that there was an association between e-payment system usage with age and gender. Also found that male and old-age people use e-payment that other people. However, the young Japanese tend to use conventional payment system than e-payment system because they do not trust the e-payment system.

One of the important tools of e-payment system is smartcards. Pertaining to such cards, Badovinac and Simic (2020) has conducted a study on handling of multiple smartcards by the users with regard to remembrance of security PINs. The study insisted on switching over from security PIN to biometric fingerprint scan using algorithm developed by the authors. They claimed that by altering the technology, there will be no problem like remembering passwords or threat to reveal passwords for multiple smartcard users.

Ahuja (2019) reviewed on challenges faced by the users of e-payment system in India. This review has gone through various e-payment systems like debit and credit cards, e-wallets, e-cheques, e-cash, NEFT, RTGS and AEPS. The study resulted in some issues faced by users of e-payment system such as more possibility to steal the information like user ID and passwords, lack of consistent digital literacy, more dependency on cash transactions rather cashless, lack of infrastructure in rural and remote locations and lack of knowledge to choose right e-payment method.

E-payment system rather than cashless system, was considered as an alternative payment system (Fatonah et al., 2018). The authors used meta-analysis to know various methodologies used by different authors towards understanding of e-payment system. The study identified research

conducted in various studies, different types of data collection tools used and various types of statistical analyses applied by different researchers to study the issues of e-payments of different nations.

A study was conducted by Bajpai et al. (2018) on trends of e-payments after demonetization in India. The authors said that it is important to focus more on savings and investment, which is high in Asian and Southeast Asian countries especially in India, it is 8% and above growth in savings, which itself shows that there is a push towards achieving digital financial inclusion through enactment of ICT effectively.

Tombe et al. (2017) focused on e-marketplace that involves customer-to-customer (C2C). The authors considered trust as a prime factor in the study. By conducting an online survey using questionnaire they found that the trust is possible based on the reputation of the seller and further found that the quality of electronic payment system also determines the usage of the same.

A study on e-payment systems was conducted in Nigeria by Afaha (2019) pertaining to the economic growth of such nation. The study conducted to find out the Nigeria's relationship between e-payment system and economic growth. The study found that people of Nigeria is familiar in using point-of-sales service, ATMs, and web-based services, which helps to a greater extent to economic growth and improve GDP, however, they are afraid of online fraud and security for e-transactions.

Chaiyasoonthorn and Suksa-ngiam (2019) conducted a cross-sectional survey on e-payment systems and its distribution and adoption in Bangkok, Thailand. The study was conducted to know the different socioeconomic behaviours towards e-payment systems and the factors that influence the users during e-payments. The study resulted in a positive correlation between income of people and usage of e-payment system. And it is further found that there is no relationship between area of residence and usage of e-payment. Additionally, they found that the use behavior is

possible with respect to income, readiness to adopt and availability of internet banking.

Nguyen and Huynh (2018) has studied the roles of trust and perceived risk from TAM to find out the adoption of e-payment in Ho Chi Minh city. The researchers studied about e-payment, its advantages and disadvantages with different versions of technology models such as TAM, TAM2, TAM3 and UTUAT. From the study, it was found that there was a positive influence of trust on e-payment and negative influence of perceived risk on the same. The result showed that there was 38% responded positively to e-payment adoption.

Ogbanufe and Kim (2018) has developed an alternative model to authenticate e-payment system. The authors said that entering passwords in the payment webpage through internet is traditional mode of e-payment. So, they applied TAM to study on how fingerprint could be used against traditional authentication system in e-payment. The authors found that the respondents agreed that there would be more trust, belief on security and perceived usefulness when fingerprint biometrics is applied instead of traditional authentication for e-payment.

The benefits of e-payment system, like users, also helpful to service providers. The financial performance of microfinance banks on the basis of e-payment was studied by Sakanko and David (2019) in Niger, Africa. From the study it is found that e-payment system has better and positive impact on financial performance of a bank that was studied. The study suggested that by improving the safety and reducing the transaction cost would lead to bring in more customers.

El Haddad et al. (2017) said that though there are many payment technologies available in the market for two decades, still the card is used for most of the e-transactions. However, such system still lacks in protection of privacy, control by user and supervision of transaction. The authors said that by developing a virtual card especially credit cards, the users can easily have control over their online transactions and privacy will not be compromised during online shopping.

The literature on e-payment system were reviewed by Yomas and Kiran (2018) along with threats, security risks, and vulnerability. The authors have gone through familiar internet payment systems like e-cash, e-cheque, e-card and smartcard. From the review, the authors understood that there are both benefits and issues found in e-payment system. The overcome of issues is possible by increasing security and decreasing risks and threats so that automatically there would be no online vulnerabilities and attacks.

In India, the youngster population is dominant in usage of e-payment system. A study was conducted by Adharsh et al. (2018) on how Indian youngsters transform from traditional wallet to e-wallet system among students in a college. The authors found that e-wallet is easier when compared to cash payment system and perform transactions faster and believe that financial transactions are safe and secured. They also found that the acceptance of money happens in all types of vendors.

Lai (2016) suggested a design on making all the e-payments with respect to card usage, internet and mobile technologies into a single e-payment system. The study was conducted using TAM. From the study it is found that such technology will be useful and easy to use. They also found that customer felt secured on such payment system compared to handling of multiple payment alternatives.

Oyelami et al. (2020) conducted a study in Nigeria pertaining to intentions of consumers on purchase and payment using adoption of e-payment usage. Additionally, the growth on their spending was also studied and checked whether there is an increase of spending due to e-payment. It is found that people are more aware of e-payment system and they felt so comfort while using such system. The study suggested that government should imply more on e-payment so that the possibility of using e-payment would increase.

Turban et al. (2018) studied payment systems to e-commerce with respect to cross-border payments. Cross-border payment means payments happening between two people living in two



different countries. The authors have discussed various models of payment such as payment cards, smart cards, online micropayments, third-party payment gateways, mobile payments and digital and virtual currencies. They brought out the merits and challenges of each system in their chapter.

A study was conducted by Riskinanto et al. (2017) by using age as a moderating variable to study the adoption of e-payment system in Indonesia. TAM was used to carry out the research. Age was compared with factors of TAM and it was found that perceived usefulness and ease of use has positive effect when moderated with age.

Countries like China is completely controlled by the government where the rules on usage of electronic payment system is different. A study was conducted by Nadler et al. (2019) by studying on adoption of e-payment system in China, where the economy and market is controlled by the government. Based on the spending of young Chinese, the study was conducted and it resulted that the important factors that influence e-payment system are age, gender, perceived quality, self-efficacy and perceived benefit.

De Luna et al. (2019) studied about how customers accept different mobile payment system. The study was conducted by developing a behavioural model that explain the usage intention of mobile payment system. The chosen mobile payment factors were SMS (Short-Message Service), NFC (Near Field Communication) and QR (Quick Response). Using TAM, the researchers found that there were differences on intention to use the said three variants of mobile payment system.

E-payment facilitates people when they are in travel or during tour. What happens if there is a failure in an e-payment transaction when someone is in a tour or travel? Sun et al. (2019) has conducted a study on this question by testing the awareness of people on transaction failure during travel using multi-hazard risk assessment tool. The authors said that the parties involved in a e-payment transaction are user, merchant, service provider and network operator. The majority of mobile payment system failure happens with service providers.

Mobile payment is becoming more popular in e-payment systems because of wide users of mobile devices. A study was conducted in Indonesia by Sun and Havidz (2019) on adoption of m-payment and how people intent to use such system. TAM and structural equation modelling were used in the study. Perceived of usefulness and perceived ease of user were found to be the vital factors on intention to use m-payment.

Saxena et al. (2019) studied on the security to e-payment system. As people are using various modes of e-payment like debit card, credit card, internet banking, mobile banking and so on, the transactions became faster and easier however, the concern about such activities is whether the transaction and the information of the user are secured or not. The researchers insisted on promoting security awareness on e-users and enhancing the security in each stage of e-payment will bring down the vulnerability and build trust among potential users.

Gupta (2020) has conceptually explained about e-payment system in India. In the country, the e-payment system became very popular during the recent decade however still people are not using this system effectively because of negligence and lack of trust. To overcome such factors, the government is promoting such system using awareness programmes in TV channels and internet.

E-payment system does help the economic growth in many aspects (Vinayakrao, 2020). It pulls down the corruption, stops supply of black money and money laundering. As all the transactions are recorded, there would be an easy way to deduct fraudulent activities. It not only improves standard of living of people, it also enhances the level of saving and investment.

By going through the above reviews, it is clear that many researchers adopted Technology Acceptance Model and its various versions as per their study requirements. It is evident that there is no study conducted in the study area selected for this study, i.e. Coimbatore district. And this study is unique because it is to identify the drive of people

from banked to digitally banked by testing different e-payment factors.

## II. Objective and hypotheses of the study

This study aims to identify the use of e-payment system and its influence to digital financial inclusion in Coimbatore district, Tamil Nadu, India. This study also aims to know how the users are prone to different types of risk which leads to financial exclusion.

The hypothesis framed in this study are as follows:

H1: Age of the respondents has significant difference on frequency of usage of debit card, credit card, internet banking and mobile banking

H2: Age and Employment status of the respondents has association on frequency of usage of e-payment devices

H3: Gender has association on usage of e-payment service of others

## III. Research methodology

As per the census 2011, the total population of Coimbatore district is 10,50,721. The sample size, according to Krejcie and Morgan (1970), above 10,00,000 was 384, which was the minimum required sample for this study. Hence, the questionnaires were distributed to 450 members after identifying that they are bank customers and in return, 428 questionnaires were received and by omitting incomplete response, the response is finalized as 390 and hence the sample size was conformed to 390.

Simple random sampling was used to collect the data by enquiring random person whether he/she is holding a bank account and requesting to respond. This study used questionnaire to collect primary data.

The questions contained demographic variables such as gender, age, education, income, employment status and number of members in the family. Other variables were access to e-payment services, usage frequency of e-payment services, types of transactions using e-payment system, e-payment for different transactions, awareness on e-

payment transaction and reasons for not using e-payment system.

This study used Cronbach's Alpha to test the internal consistency. One-Way Analysis of Variance with Tukey's HSD post-hoc test and Pearson's Chi Square test were used to analyse the data.

## IV. Results and discussions

To test the internet consistency, Cronbach's Alpha was used and the reliability was 0.924, which showed a high internal consistency for 26 variables. Using one-way ANOVA with Tukey's HSD post hoc test, the result of H1 was derived.

a. H1: Age of the respondents has significant difference on frequency of usage of debit card, credit card, internet banking and mobile banking

The Table 1 describes the analysed results between age and frequency of use of e-payment system.

**Table 1 One-Way ANOVA with Tukey HSD post-hoc test**

Frequency of use of e-payment	Age	18-25	26-33	34-41	42-49	50 and above
Debit card	18-25	1.000	<b>1.000</b>	<b>0.981</b>	0.000	0.000
	26-33	<b>1.000</b>	1.000	<b>0.993</b>	0.000	0.000
	34-41	<b>0.981</b>	<b>0.993</b>	1.000	0.000	0.000
	42-49	0.000	0.000	0.000	1.000	<b>1.000</b>
	>50	0.000	0.000	0.000	<b>1.000</b>	1.000
Credit card	18-25	1.000	<b>0.980</b>	<b>0.180</b>	0.000	0.000
	26-33	<b>0.980</b>	1.000	<b>0.430</b>	0.000	0.000
	34-41	<b>0.180</b>	<b>0.430</b>	1.000	0.000	0.000
	42-49	0.000	0.000	0.000	1.000	0.000
	>50	0.000	0.000	0.000	0.000	1.000
Internet banking	18-25	1.000	0.002	0.000	0.000	0.000
	26-33	0.002	1.000	<b>0.100</b>	0.000	0.000
	34-41	0.000	<b>0.100</b>	1.000	0.000	0.000
	42-49	0.000	0.000	0.000	1.000	0.000
	>50	0.000	0.000	0.000	0.000	1.000
Mobile banking	18-25	1.000	0.000	0.000	0.000	0.000
	26-33	0.000	1.000	<b>0.142</b>	0.000	0.000
	34-41	0.000	<b>0.142</b>	1.000	0.000	0.000
	42-49	0.000	0.000	0.000	1.000	0.000
	>50	0.000	0.000	0.000	0.000	1.000

Note: The highlighted figures in the Table 1 shows p values less than 0.05

From the above table, it is found that there is a significant difference between age groups 18 to 41 and 42 and above on frequency of usage of debit

and credit card. In case of internet and mobile banking, except age groups 26 to 41, other age group respondents shown a significant difference in usage frequency.

By using Chi-Square test, the association of age and employment with frequency of usage of e-payment devices were analysed and the results are given below:

- b. H2: Age and employment status of the respondents have association on frequency of usage of e-payment devices

**Table 2 Cross tabulation: Age × Device preferred to frequently use for e-payment**

Age		Device preferred to use Frequently for E-Payment					Total
		MP	T	L	PeC	PuC	
18-25	Count	65	25	50	0	0	140
	Total %	16.7%	6.4%	12.8%	0.0%	0.0%	35.9%
26-33	Count	60	0	20	0	0	80
	Total %	15.4%	0.0%	5.1%	0.0%	0.0%	20.5%
34-41	Count	11	18	0	0	0	29
	Total %	2.8%	4.6%	0.0%	0.0%	0.0%	7.4%
42-49	Count	0	35	43	5	0	83
	Total %	0.0%	9.0%	11.0%	1.3%	0.0%	21.3%
>50	Count	0	2	0	33	23	58
	Total %	0.0%	0.5%	0.0%	8.5%	5.9%	14.9%

Note: MP – Mobile Phone; T – Tablet; L – Laptop; PoC – Personal Computer' PuC – Private Computer

From Table 2 it is found that device users are more in the age group of 18 to 25 (35.9%) and the highly preferred device is mobile phone for frequent use for e-payment (16.7% out of 35.9%). There are no users of personal computer in the age groups of 18 to 41 and public computer was not used by the age groups from 18 to 49. From this cross-tabulation, the Pearson's Chi-Square were derived and the result is illustrated in Table 3.

**Table 3 Pearson's Chi-Square Test**

Value	df	Asymptotic Significance (2-sided)
492.285	16	0.000

From the above table, it is found that there is a significant association between age and frequency of use of e-payment devices.

**Table 4 Cross tabulation: Employment status × Device preferred to frequently use for e-payment**

Employment Status		Device preferred to use Frequently for E-Payment					Total
		MP	T	L	PeC	PuC	
Job seeker	Count	43	0	0	0	0	43
	Total %	11.0%	0.0%	0.0%	0.0%	0.0%	11.0%
Salaried	Count	93	80	113	10	0	296
	Total %	23.8%	20.5%	29.0%	2.6%	0.0%	75.9%
Self-employed	Count	0	0	0	28	23	51
	Total %	0.0%	0.0%	0.0%	7.2%	5.9%	13.1%

Note: MP – Mobile Phone; T – Tablet; L – Laptop; PoC – Personal Computer' PuC – Private Computer

From the Table 4, it is found that salaried people use e-devices frequently (29% out of 390 respondents). The job seekers are using only mobile phone to e-payment. Self-employed uses only personal and private computer to e-payments.

**Table 5 Pearson's Chi-Square Test**

Value	df	Asymptotic Significance (2-sided)
408.511	8	0.000

From the Table 5, it is found that there is an association between employment status and frequency in use of devices for e-payment.

From 390 respondents, 176 respondents said that they use e-payment system of others. Hence, their usage is studied in H3.

- c. H3: Gender has association on usage of e-payment service of others

Using Pearson's Chi-square, the results on association of gender and age with usage of e-payment services of others is tabulated in Table 6 and 7 below:

**Table 6 Cross tabulation: Gender × Type of E-Payment Services of others used by respondents**

Gender		Type of E-Payment Services of others used by respondents			Total
		Internet Banking	Mobile Banking	Debit/Credit Card	
Male	Count	12	24	75	111
	Total %	6.8%	13.6%	42.6%	63.1%
Female	Count	4	10	51	65
	Total %	2.3%	5.7%	29.0%	36.9%

From the Table 6, it is found that more male and female respondents have used debit /credit card of others, when compared to internet and mobile banking.

**Table 7 Pearson's Chi-Square Tests**

Value	df	Asymptotic Significance (2-sided)
2.483	2	0.289

From Table 7, it is resulted that there is no association between gender and e-payment services of others that are used by the respondents.

Apart from the above inferential statistics, the following Table 8 explains the response and its percentage.

#### d. Security on usage of e-payment system

The security is considered very important factor when performing online transactions. So, the respondents were asked on how they remember their transaction password and how frequently they change their password. The responses are tabulated below:

**Table 8 Security on e-payment transactions**

Particulars		f	%
Remembrance of password for internet or mobile banking/ATM	I have Memorized the Password	103	26.4
	I have Stored the Password in Mobile and/or Computer	199	51.0
	My Password is known to my Family Members and They let me know	88	22.6

Changing password of internet or mobile banking/ATM	Whenever the Bank Insists	309	79.2
	Frequently - Atleast Three Months Once	49	12.6
	I have never Changed	32	8.2
Total of each factor		390	100.0

From the Table 8, it is found that more than 50% of the respondents said that they have stored their password information in their device. So, they are prone to Novelty risks, Agent-related risks, and Digital-technology related risks (World Bank, 2014). It is also found that nearly 80% respondents said that whenever the bank insists, they change their passwords.

#### e. Reasons for not using e-payment system

Respondents who said that they do not use debit/credit card, internet banking and mobile banking were asked the reasons for not using. The results were tabulated in Table 9 below:

**Table 9 Reasons for not using e-payment system**

Particulars		f	%
Reasons for not using debit/credit card	Lack of Knowledge	66	16.9
	Lack of Trust	15	3.8
	Prefer Paying Physical Cash	31	7.9
	Not Technologically Sound	12	3.1
	Unable to Remember Passwords	35	9.0
	I do not have one	231	59.2
Reasons for not using internet banking	Lack of Knowledge	74	19.0
	Lack of Trust	26	6.7
	Prefer Paying Physical Cash	18	4.6
	Not Technologically Sound	39	10.0
	Unable to Remember Passwords	47	12.1
	I do not have one	186	47.7
Reasons for not using mobile banking	Lack of Knowledge	82	21.0
	Lack of Trust	40	10.3
	Prefer Paying Physical Cash	29	7.4
	Not Technologically Sound	24	6.2



	Unable to Remember Passwords	58	14.9
	I do not have one	157	40.3

From the above table, it is found that more than 59% respondents said that they do not own a debit card, in which maximum is about non-ownership of credit card. About 47% and 40% respondents said that they do not have internet and mobile banking.

## V. Conclusion

From the study, it is concluded that less than 50% people of the study area are still in the banked status and have not become active bank users. Hence, it is the responsibility of the people to know how to effectively use digital platform of services provided by financial institution so that the shift from banked to digitally banked will occur in the near future.

## VI. Limitation and scope for further research

This study has considered banked population and Coimbatore district as study area. This could be further extended to other districts and unbaked population could be directly pulled into digital banking.

## References

- [1] Vaidya, C. V. (2020). Mobile Learning. *Our Heritage*, 68(9), 925-930.
- [2] Stalin, P., Abraham, S. B., Kanimozhy, K., Prasad, R. V., Singh, Z., & Purty, A. J. (2016). Mobile phone usage and its health effects among adults in a semi-urban area of southern India. *Journal of clinical and diagnostic research: JCDR*, 10(1), LC14.
- [3] Singh, S. K. (2008). The diffusion of mobile phones in India. *Telecommunications Policy*, 32(9-10), 642-651.
- [4] Aeron, P., Jain, S., & Kumar, A. (2019). Revisiting trust toward E-retailers among Indian online consumers. *Journal of Internet Commerce*, 18(1), 45-72.
- [5] Khandker, V., & Joshi, K. P. (2019). Price determination for 4G service using price sensitivity model in India. *Journal of Revenue and Pricing Management*, 18(2), 93-99.
- [6] <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CDDP03062019634B0EEF3F7144C3B65360B280E420AC.PDF>
- [7] Shaikh, N., & Shah, N. D. (2020). Role of Government and RBI in Financial Inclusion-An Ecosystem of Development. *Studies in Indian Place Names*, 40(8), 261-271.
- [8] Agrawal, C. A., & Kavishwar, S. (2020). Digital Financial Inclusion of Women in India. *Our Heritage*, 68(9), 723-735.
- [9] Shaikh, A. A., Hanafizadeh, P., & Karjaluoto, H. (2017). Mobile banking and payment system: A conceptual standpoint. *International Journal of E-Business Research (IJEER)*, 13(2), 14-27.
- [10] Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: an empirical study on Iranian customers. *Information systems and e-business management*, 15(1), 89-116.
- [11] Salloum, S. A., Al-Emran, M., Khalaf, R., Habes, M., & Shaalan, K. (2019). An Innovative Study of E-Payment Systems Adoption in Higher Education: Theoretical Constructs and Empirical Analysis. *International Journal of Interactive Mobile Technologies (iJIM)*, 13(06), 68-83.
- [12] Ab Hamid, N. R., & Cheng, A. Y. (2020). A risk perception analysis on the use of electronic payment systems by young adult. *order*, 6(8.4), 6-7.
- [13] Omotubora, A., & Basu, S. (2018). Regulation for E-payment Systems: Analytical Approaches Beyond Private Ordering. *Journal of African Law*, 62(2), 281-313.
- [14] Chen, A. N., Griffin, K., Zeltmann, S., Ota, M., & Ozeki, R. (2018). Demographic Background, Perceptions, and E-Payment Usage among Young Japanese. *Institute for Global Business Research Conference Proceedings, Nashville, TN, USA*, 133.
- [15] Badovinac, N., & Simic, D. (2020). E-Payment Systems Using Multi-card Smartcard. In *Advances in Operational Research in the Balkans* (pp. 237-249). Springer, Cham.
- [16] Ahuja, K. (2019). Challenges for Indian E-Payment System. *Mmu Journal Of Management Practices*, 10(1), 27-29.
- [17] Fatonah, S., Yulandari, A., & Wibowo, F. W. (2018, December). A Review of E-Payment System in E-Commerce. In *Journal of Physics: Conference Series* (Vol. 1140, No. 1, p. 1-7). IOP Publishing.
- [18] Bajpai, N., Biberman, J., & Sachs, J. D. (2018). Post-Demonetization E-Payment Trends. *CSD Working Paper Series: Towards a New Indian Model of Information and Communications Technology-Led Growth and Development* (pp. 1-15).
- [19] Tombe, R. S., Budi, N. A., Hidayanto, A. N., Ekawati, R. K., & Anussornnitisarn, P. (2017).

- November). Why does people use e-payment systems in C2C e-marketplace? a trust transfer perspective. In *2017 Second International Conference on Informatics and Computing (ICIC)* (pp. 1-6). IEEE.
- [20] Afaha, J. S. (2019). Electronic Payment Systems (E-payments) and Nigeria Economic Growth. *European Business & Management*, 5(6), 77.
- [21] Chaiyasoonthorn, W., & Suksa-ngiam, W. (2019). The Diffusion and Adoption of Electronic Payment Systems in Bangkok. *International Journal of E-Business Research (IJEER)*, 15(2), 102-115.
- [22] Nguyen, T. D., & Huynh, P. A. (2018, January). The roles of perceived risk and trust on e-payment adoption. In *International Econometric Conference of Vietnam* (pp. 926-940). Springer, Cham.
- [23] Ogbanufe, O., & Kim, D. J. (2018). Comparing fingerprint-based biometrics authentication versus traditional authentication methods for e-payment. *Decision Support Systems*, 106, 1-14.
- [24] Sakanko, M. A., & David, J. (2019). The Effect of Electronic Payment Systems on Financial Performance of Microfinance Banks in Niger State. *Esensi: Jurnal Bisnis dan Manajemen*, 9(2), 143-154.
- [25] El Haddad, G., Hage, H., & Aïmeur, E. (2017, May). E-payment plan: a conditional multi-payment scheme based on user personalization and plan agreement. In *International Conference on E-Technologies* (pp. 285-299). Springer, Cham.
- [26] Yomas, J., & Kiran, C. (2018). N.: Critical analysis on the evolution in the e-payment system, security risk, threats and vulnerability. *Commun. Appl. Electron. (CAE)*, 7(23), 21-29.
- [27] Adharsh, R., Harikrishnan, J., Prasad, A., & Venugopal, J. S. (2018). Transformation towards E-Wallet Payment Systems Pertaining to Indian Youth. *International Journal of Pure and Applied Mathematics*, 119(12), 2583-2594.
- [28] Lai, P. C. (2016). Design and Security impact on consumers' intention to use single platform E-payment. *Interdisciplinary Information Sciences*, 22(1), 111-122.
- [29] Oyelami, L. O., Adebisi, S. O., & Adekunle, B. S. (2020). Electronic payment adoption and consumers' spending growth: empirical evidence from Nigeria. *Future Business Journal*, 6(1), 1-14.
- [30] Turban, E., Outland, J., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2018). Electronic commerce payment systems. In *Electronic Commerce 2018* (pp. 457-499). Springer, Cham.
- [31] Riskinanto, A., Kelana, B., & Hilmawan, D. R. (2017). The moderation effect of age on adopting e-payment technology. *Procedia Computer Science*, 124, 536-543.
- [32] Nadler, S., Chen, A. N., & Lin, S. F. (2019). E-payment Usage among Young Urban Chinese. *Journal of Business Diversity*, 19(3).
- [33] De Luna, I. R., Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2019). Mobile payment is not all the same: The adoption of mobile payment systems depending on the technology applied. *Technological Forecasting and Social Change*, 146, 931-944.
- [34] Sun, S., Law, R., & Zhong, L. (2019). Mobile Payment Failure during Travel. *Journal of China Tourism Research*, 1-17.
- [35] Sun, Y., & Havidz, S. A. H. (2019, August). Factors Impacting the Intention to Use M-Payment. In *2019 International Conference on Information Management and Technology (ICIMTech)* (Vol. 1, pp. 290-294). IEEE.
- [36] Saxena, S., Vyas, S., Kumar, B. S., & Gupta, S. (2019, February). Survey on Online Electronic Paymentss Security. In *2019 Amity International Conference on Artificial Intelligence (AICAI)* (pp. 756-751). IEEE.
- [37] Gupta, D. (2020). Digital Payments In India: A Conceptual Study. *Studies in Indian Place Names*, 40(3), 5906-5914.
- [38] Vinayakrao, J. D. (2020). E-Payment System and its Sustainable Development. *Studies in Indian Place Names*, 40(38), 493-499.
- [39] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- [40] <https://www.worldbank.org/en/topic/financialinclusion/publication/digital-financial-inclusion>