# PalArch's Journal of Archaeology of Egypt / Egyptology

# TO STUDY THE IMPACT OF ADVANCEMENT IN E-PAYMENT TECHNOLOGY USED IN INDIA

Shubham Chugh\*, Gagan Vibhu, Sonika Kanojia, Vinay Kumar and Surya Kant Pal University School of Business- Industry Collaborated Programs Chandigarh University, Gharuan, Mohali-140413, Punjab, India.

\*Email: 19mbf5001@gmail.com

Shubham Chugh\*, Gagan Vibhu, Sonika Kanojia, Vinay Kumar and Surya Kant Pal: To Study The Impact Of Advancement In E-Payment Technology Used In India -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6), 1-14. ISSN 1567-214x

Keywords: "Electronic Payment System, Skill India, Digital India, E-Payment Process, National Electronic Fund Transfer, Real Time Gross Settlement, IMPS, UPI, Stored Value Cards."

#### **ABSTRACT**

Electronic Payment (E-Payment) plays the most important role in an Individual's life. It is one of the most widely used and acceptable mediums for the transfer of funds or payments. Because of its well-situated nature, easy and speedy payments, accuracy, and appropriateness, it is used worldwide. No doubt, the currency is used as a medium of exchange but, Electronic payments or cashless transactions are also increased when compared with past years. With the introduction of two government policies for expansion of Digital payments or E-Payments systems in India are, "Digital India" and "Skill India" as in India out of every four, three are without access to digital payments or E-Payments. The penetration level of credit cards and debit cards are very less as compared with overseas. Both primary and secondary source of data collection is been used, by covering the area where population size was of not more than 3000 individuals and random sampling is done from those who are having their bank account and take a sample size of 160 individuals, along with the level of accuracy is explained by applying correlation and Z-test.

#### Introduction

With the introduction of digital India and the growth progress as stated by Information Technology (IT) sector, Individuals are now moving towards

online payments, as the application based mobile apps and websites have achieved a drastic shift from the old and traditional way of transfer of funds to a new and more updated way of transfers.

Unified Payment Interface (UPI) has seen a drastic growth after it was launched in August 2016. It has seen immense growth in transfers that were previously done by the IMPS method of transfer. The UPI volume has increased to 4 folds in just one year from 2018 to 2019.

Paytm/Paytm Payments Bank, Google-pay, BHIM UPI plays a most important and practicable role in the growth of the Electronic Payments system in India, not only these Indian banks have also played a most important role in the growth of E-Payments. The level of ease and suitability helped individuals to use the online payment technology and from this a report shown by MeitY's stating HDFC Bank has seen their targets grow from 2.5 billion to 3 billion in just one year, <ref. no> <a href="http://www.meity.gov.in">http://www.meity.gov.in</a>. Thus Electronic Payment systems can be characterized as paying for goods and services with the help of the internet, thereby including all the financial transactions electronically, such as computers or laptops, smart phones, or I-pads/tablets. Electronic payment moves towards through various sources like Debit Cards, Credit Cards, BHIM UPI, and other online shopping sites providing the opportunity to buy now and pay later and other stored value cards and also top 10 payment gateways which has lead to a speedy growth of Electronic Payment System.

Taking into account international transactions, cross border payments have taken a majority stake by contributing to about 75 percent of total e-commerce transactions in India. India is the world leader in case of application-based payments, thus moving India towards Digitalization and both these mobile-based applications and e-wallets/cards are speedily replacing old and traditional ways of making payments i.e. through currency notes.

The Electronic Payments System plays a most important role in the life of individuals, as with the help of this system, a person can send and receive funds from anyone within and outside the geographical area. A mode affectively used for making B to B, B to C and, C to C transactions.

#### **Review of Literature**

Many authors have contributed to the field of Electronic payments which is been used worldwide. Thus electronic Payments plays a most viable role in the life of Individuals, this paper will discuss both Primary and Secondary source of information collecting along with also discussed in detail what these authors have stated in their manuscripts.

(Kaur & Pathak, 2015) the author analyzed the impact of various online/electronic payments systems concerning the e-commerce sector in India. The author discussed the credit and debit cards which are been used by the users for online payments, various digital wallets, and E- cards/E-cheques. (D & Kaur, 2017) in this the author examined the situation based on customer preferences towards various sources of E-Payments, in this the discussion was

based on Credit cards, ECS, Electronic Payments, EFT, etc. the paper is based on secondary sources of data collection. Regarding digital India ("DIGITAL INDIA Sandeep Mertia Keywords for India: Conceptual Lexicon for the 21," 2020). (Heng, 2011) in the paper, the author examined the impact of the Electronic payments system as a much updated and modern-day accompaniment to the much older and traditional way of doing transactions, the author stated the benefits of making online payments and abolishing the traditional ways of dealing with transactions. The secondary source of data is been calculated for considering the importance and growth in digital payments over the cash payments. (Allen, 2003) in the paper, the author analyzed the technological advancement and innovations which have taken place in the field of online/electronic Payment systems. The author discussed online internetbased and mobile-based payment systems and along with pre-paid payments which individuals use these days. (Georgescu, 2001) in this the author discussed the materialization of online payment or electronic mode of payment for the growth of E-Business and analyzed the importance of online payment in B to B, B to C, or even B to G. Secondary source of collection of data is been used. (Papadopoulos, 2011) in this, the author examined the impact of Electronic systems for payments and the transfer of funds and making it a cashless society. The author discussed the use of electronic payments for transfer or exchange of funds between the parties. For instance, the author uses a secondary source of data collection to measure the growth in usage of e-Payments. (Saegusa et al., 1971) in this paper, the author discussed the technological advancement which has taken place from the old and traditional way of making payment to a highly new and digitalize manner. Described the Bit- coins which are currently not been used in India for transfers, and also discussed the risks involved in measuring the risks involved in digital payments system or E-Payments. (Vu, A. T., Le, T. P., Duong, T. D., & Nguyen, 2018) in this, the author discussed the economics of financial applications, the use of electronic payments, and the benefits and drawbacks of these online/electronic payments. (Salloum et al., 2019) in this, the author has analyzed the study of the electronic payment system and its adoption by the students of higher education, the importance of online payments is the major concern of discussion by the author. (Kabir et al., 2017) in this, the author evaluated the various factors which are involved in influencing the Electronic Payment System or online payment system which is used by the individuals nowadays. A secondary source of data collection is been done for writing the paper. For further reference (Systems et al., 2006)

# **Research Objectives**

- 1. To understand the use of EPS for making payments.
- 2. To study the various ways, websites and mobile applications which are used for doing Electronic Payments or online payments among B to B, B to C, and C to C providers.
- 3. Government initiatives i.e. "Digital India" and "Skill India" impacted the Electronic payment system.
- 4. To understand the prospects of E-Payment or Online Payment System in

India.

# **Hypothesis of Research**

**Ho** = There is no impact of Digitalized Economies with their Digital Adoption Index.

**H1** = There is an impact of Digitalized Economies with their Digital Adoption Index.

**H2** = There is no impact of Individuals prefer E-Payment System and will continue in future as well.

**H3** = There is an impact of Individuals prefer E-Payment System and will continue in future as well.

# Research Design

For writing the paper, both Primary and secondary source of data collection is made, and random sampling is done among the 10000 individuals who are having their bank account and doing online transactions as well. Among them, 160 responses are been collected to understand the actual scenario of using the Electronic Payment System.

### Research Methodology

The electronic payment system plays a most viable role in the life of individuals, because of its ease and timeliness nature, accuracy, and speedy in sending and transferring of funds. Because of government policies i.e. of Digital India and Skill India, the various policies are been implemented by the government to promote Electronic Payments mode in India which are Real-Time Gross Settlement (RTGS), National Economic Fund Transfer (NEFT), Card usage at Point of Sales, Unified Payment Interface (UPI), Prepaid Payment Instruments (PPI), etc. to see a drastic growth from past five years. From past years there has been a decline in paper-based transactions and an increase in online transactions has taken a lead.

The E-Payment System in the year 2019 differentiated by value shows Digital Wallets or E- wallets including Paytm, Amazon Pay, BHIM UPI, PhonePe etc. are having total contribution of 25 percent of total payment value, and the payments with Cards i.e. Debit Cards, Credit Cards and virtual cards payment covers 29 percent of total market payment modes, Bank transfers to have contribution of 20 percent, cash payment transactions also having share of 17 percent in total payments made in India by the end of financial year 2019.

In the present scenario there has been considerable growth in terms of online/electronic payment system as the total in terms of volume has recorded an increase of about 58.8 percent growth in the financial year 2018-19, which is on the top of 50.4 percent during the financial year 2017-18. On the other hand the electronic payment system or the online transactions recorded a 19.5

percent increase in terms of value in the financial year 2018-19 when compared with previous year value comprising 22.5 percent in growth level and in order to promote the online payment or e-payment by every individual, the Indian Government has decided to remove all the charges levied on transactions which are been processed under RTGS and NEFT payment system by Indian Banks.

The various factors that establish a Method of Electronic Payment System are:

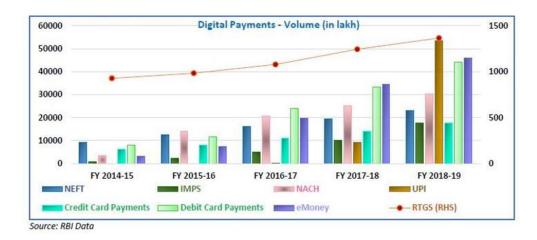
- Security as to how safer is the Transfers.
- Ease of Usage in transferring of funds
- International Support is also provided as Individual can transfer money from anywhere to anyone.

Digital Based Transactions				
Particulars	Volume (Billion)			
Year-on-year	2017-18	2018-19	Growth (%)	
RTGS Customer Transactions	1036699	1184368	114.2%	
RTGS Interbank Transactions	130426	172514	132.3%	
Retail Electronic Clearing (ECS, NEFT	,			
NACH, IMPS)	192018	258745	134.8%	
Cards Usage (Point of Sales)	9190	11969	130.2%	
Prepaid Payment Instruments	1416	2129	150.4%	
UPI (including BHIM)	1098	8770	798.7%	
Total Digital Transactions	1370847	1638495	119.5%	
Correlation value	0.999444141			

<ref. no> http://www.rbi.org.in

Table 1: Showing growth in terms of volume of digital transactions from financial year 2018 to financial year 2019.

From the above table it is clear from the data, that there has been a growth in terms of volume from financial year 2017-18 to financial year 2018-19 and showing the value of correlation (r) equal to 1 (Perfectly positive correlation) thus there is perfect relationship between the two values given respectively. The largest growth among all the online payment is showing of Unified Payment Interface including BHIM UPI of about 798.7 percent growth in terms of volume from financial year 2017-18 to financial year 2018-19.



Graph 1: Showing trends in IMPS, UPI, NEFT, RTGS, Debit/credit card Payments from financial year 2015 to financial year 2019

From the Graph 1, as the launch of Unified Payment Interface (UPI) in august, 2016 there has been a steady increase in not only in terms of volume but in terms of value as well, the graph showing an increase of 798.7 percent from financial year 2018 to financial year 2019 in volume of UPI Payments, thereby showing a parallel increase in IMPS value, but the volume is not increasing at same pace. People are more likely to shift from old and traditional method to new and updated method, as UPI doesn't require any bank account details of sender, neither any beneficiary required. From the financial year 2015, there was hardly any individual involved in using prepaid instruments and in the recent scenario, the trend is not the same as there has been a constant increase in year-on-year basis in PPI not only in terms of volume but in terms of value as well, the graph showing an increase of 150 percent from the financial year 2018 to the financial year 2019 in a volume of PPI. Thus from the financial year 2018 to the financial year, 2019 volume increased from 1416 billion to 2129 billion. From the launch of Real Time Gross Settlement (RTGS) and National Economic Fund Transfer (NEFT) there has been a steady increase, not only in terms of volume but in terms of value as well, the graph showing an increase of 114 percent in case of RTGS and in case of National Economic Fund Transfer (NEFT) the graph showing an increase of 134.8 percent from financial year 2018 to financial year 2019

The penetration level of Indians who are having their ATMs and Debit cards is only 930 million in India in the financial year 2019 from 845 million in the financial year 2018 and from 780 million in India in the financial year 2017. The total bank accounts in India 1.57 billion comprising of 80 percent of the total population in India with bank accounts with them.

#### Relevance for the Electronic Payments System

The relevance for the E-Payment System in India includes

1. Electronic Micro-Payment System: These are the transactions which are

based on usually of low-cost transfers among the parties involved, these transactions involve amount less than even 10 dollars. As in the present scenario, it is full of small payments and with the help of Electronic payments it has seen steady growth. I.e. for making payment to purchase a game from an online store, or to make payment for reading or accessing E- books, etc.

- 2. Level of convenience: The fact of electronic payment can't be denied the level of comfort and easiness which is provided by the Electronic Payment System. From this, the increase in the level of purchasing of smart-phones and from that increase in the level of Electronic payments. As the electronic payment system provides individuals to pay timeliness and also at a comfort.
- 3. Lower Transactions cost: As traditionally the dealings are done on a cash basis which involve a huge amount of cost, i.e. actually going from one place to another for making or receiving payments, but this is not the same in case of electronic payments as the individuals can send the money through electronic form also with the help of the e- payments system, and the applications i.e. Google pay or phonePe which allow users to pay to any party from far of place without even getting their account details or to know any beneficiaries.

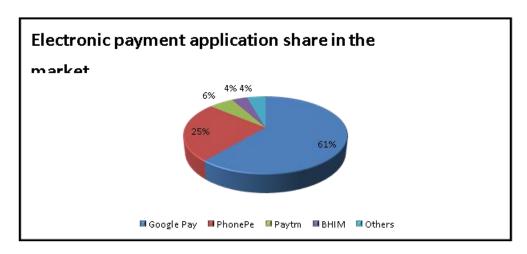


Chart No. 1: Showing the market share of applications used for making online/electronic payment in India.

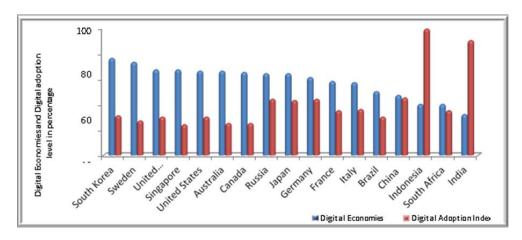
From the chart No. 1, it clear that the electronic payments are mostly done with the help of Google Pay and PhonePe then only 6 percent of the whole market is taken by Paytm Payments Bank and rest 4 percent by BHIM (Bharat Interface for money) as it requires bank account details for making payment as well, it is not mandatory to have an account with BHIM but Account details and Beneficiaries details for making payment thus lead to lower demand in electronic payments and other applications which are working for receiving or transfer of funds covers only 4 percent of market share. For more <ref. no> http://www.bloombergquint.com

Digital or Electronic payments are witnessing a vigorous growth in terms of both volume and values in over next five years at a compounded annual growth rate (CAGR) of about 52 percent. Along with that from financial year 2014 to

financial year 2019 digital payments bank grows at a CAGR of about 49 percent. According to the report published by CRISIL <ref. no> <a href="https://crisil.com">https://crisil.com</a> digital payments or electronic payments to grow in terms of value to grew more than double to about 4055 trillion till financial year 2024 from 1630 trillion in financial year 2019 and by translating it into Compounder Annual Growth Rate of about 20 percent.

The major Key drivers which are been responsible for the growth of Digital/electronic payments

- 1. Government initiatives: The government initiatives are been taken up for promoting digital payments in India, thus including Unified Payment Interface (UPI) which was introduced in August, 2016 lead to growth in electronic payments in India. UPI is one of the crucial indicators for the country's growth in Digital payment. Thus from UPI which without any requirements of beneficiaries details helps in making transactions to anyone within India and in terms of value crossing five billion. While Aadhar enabled payments system to record 250 million worth of transactions in financial year 2019.
- 2. E-Wallets: In India E-wallets like to Mobikwik, Paytm or PhonePe etc. gained huge popularity after the demonetization took place in India after November, 2016. Thus providing popularity by paying small and micro transactions of bill payments. Thus starting from basic services these apps gain market share and from these mobile wallet transactions grew to about 1839020 million in financial year 2019.
- 3. Point of sales (POS) penetration: As more cards are been issued, thus by taking into consideration, thus POS infrastructure has increased more than doubled in past five years to about 3.7 million in financial year 2019 from 1.1 million in financial year 2014. Hence in India penetration both these debit and credit cards is very low. Hence there is a need to increase in the penetration level in order to have an increase in Point of Sales in the economy and for this RBI has stated to grow to 5 million active POS by the end of financial year 2021.
- 4. Credit Cards: The number of credit cards issued in India stood at 47 million in financial year 2019 thus has grown at a CAGR of 20 percent from past five years and is expected to grow about 25 percent year on year basis by financial year 2021.



Graph No. 2: Showing the Digital adoption by 17 major digital economies and their Digital Adoption Index for the financial year 2017-18

From the Graph No. 2, it is clear from the data given, South Korea is on the top among 17 countries of the world in case of Digital Economies, then it comes the Sweden, thirdly United kingdom are the top three countries to declare digital Economies, but along with this, digitalization adoption index is also showing an increase in level for the countries as Indonesia on the top with 99 out of 100 level of adoption scale and secondly India with 90 out of 100 level of adoption scale in Digital Adoption Index.

t-Test: Paired Two Sample for Means		
_	Digital Economies	Digital Adoption Index
Mean	58.41176471	40.76470588
Variance	154.7573529	459.9411765
Observations	17	17
Pearson Correlation	-0.723954558	
Hypothesized Mean Difference	0	
Df (Degree of Freedom)	16	
t Stat	2.299753828	
$P(T \le t)$ one-tail	0.017631283	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	0.035262566	
t Critical two-tail	2.119905285	

From the above test it is showing, at 95 percent of level of significance, the tabulated value of T- test at "16" degree of freedom, the tabulated value is 1.745883669, and the value of P value is 0.035262566, which is less than the conventional 5 percent level of significance thus we can reject the null hypothesis at 5% significance level. This means that, there is some impact on Digital Economies and with the digital adoption level of index.

India showing as a bright future for growing the demands of digital/online

#### **Payments**

There has been seen a strong demand of online payments in Indian Economy over the past few years, impacting due to demonetization held in financial year 2016. Thus with the help of Demonetization UPI (Unified Payment Instruments) and many Fintech innovations have emerged for doing banking and other payments very efficiently for both consumers as well as business houses. This was also a fact that Demonetization didn't unswervingly aimed India to become cashless economy but with the help of this

- 1. India achieved 383 percent of growth in digital/online payments from financial year 2017-18 to financial year 2018-19.
- 2. Total digital transactions grew by 58.8 percent in case of volumes during financial year 2018-19

Thus showing that there is an increase in demand in the number of users shifting from the old and traditional way of doing transactions to adopting new and updated methods of doing transactions

**Debit and Credit Cards** 

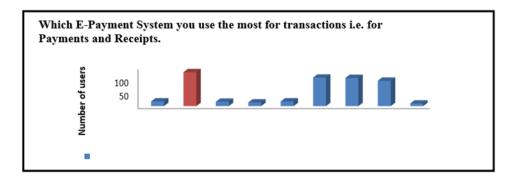


Graph No. 3 Showing Debit and credit cards from financial year 2014-15 to financial year 2019, December.

From the Graph No. 3, throughout the past five years, the number of credit cards issued exaggerated from 211 large integers to over 550 large integers. An equivalent amount conjointly witnessed a steep increase in debit cards from 5535 large integers to over 8000 large integers. This was also supported by the 2960 large integer Rupay debit cards issued to BSBD account holders. A rise in cards has expedited growth in each on-line and physical PoS terminals based mostly on card payments increasing digital transactions.

Banks issued new cards to fits the necessity to convert all existing Magstripe cards to EMV Chip and PIN compliant cards by day, 2018, and after removed deactivated cards from their systems, leading to a call debit cards outstanding. The consolidation of public sector banks conjointly contributed to the present reduction.

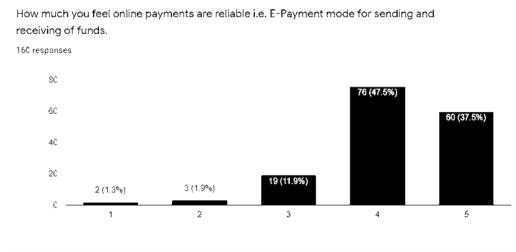
In relation to the above information taken with <ref. no> <a href="http://www.rbi.org.in">http://www.rbi.org.in</a>, a sample was also taken from 160 individuals and measured what all epayment system individual prefer to use



0	Credit	Debit	NEFT/	E-	E-	Bhim	G-Pay	Stored	Net
	Cards	Cards	RTGS	Chequ	Wallet s	UPI	(Googl	Value	Bankin
				es			e Pay)	Cards	g
Responses	18	131	17	14	18	110	109	98	10

Table No. 2: Responses received for understanding what individuals use for doing Electronic Payments

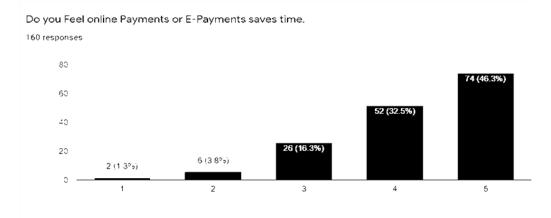
From the table No. 2, it is showing that Debit cards are used the most, but when we take in collaboration of BHIM unified Payment Interface, G-Pay (Google Pay) and Stored value cards collectively making total of 317 thus showing mostly the individuals are using all the latest online or electronic payment system, along with that of Debit cards, with highest number of users, about 131. Thus depicting almost 90 percent of the users are using latest e-payment technology system for transactions.



#### Graph No. 4 160 respondents review on reliability of E-payments

From the graph No.4, it is showing, the respondents do agree that the online mode of doing transactions is much more reliable than doing offline mode of transactions. As in the above graph, the percentage showing 47.5 percent of total 160 respondents which is 76 respondents agree and 37.5 percent of 160 respondents which is equal to 50 strongly agree that the online mode of payments are much more reliable than dealing in offline mode which is dealing in hard currency for making transactions and only a few respondents disagree to the above situation that online payments are not reliable, and they are still dealing in a traditional way of doing transactions.

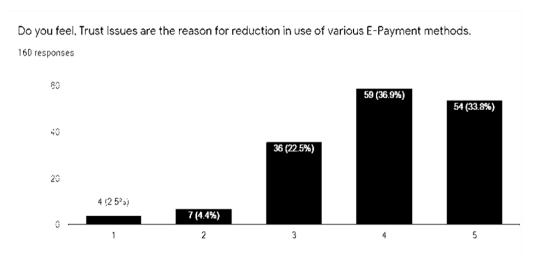
The reason for reliability is the apparent need for design secrecy. The perceived need for equipped secrecy and in particular the unwillingness of most organization owners to discuss the problems they have found and fixed.



Graph No. 5 160 respondents review on timeliness and easiness of doing E-payments.

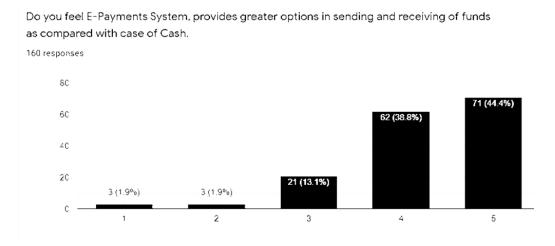
From the graph No. 5, it is showing that respondents do agree that online mode of doing transactions saves a lot of time for an individual rather than doing offline mode of transactions. As in the above graph, the percentage showing 46.3 percent of total 160 respondents which is 74 respondents strongly agree and 32.5 percent of 160 respondents which is 52 respondents agree that the online mode of payments saves a lot of time of individual as a person can do the transaction from anywhere in the world without even spending much time and money, not even the efforts rather than doing a transaction in offline mode which is dealing in hard currency for making transactions and only a few respondents disagree to the above situation that online payments don't save time, as they never deal in online transaction and done only a few POS or they are still dealing in a traditional way of doing transactions.

With an electronic payment system one need not have to spend and waste a lot of time standing in lines of banks or post office and later on your transaction would be taking hours or days to get completed. Using the e-payment system you can make funds transaction in a few minutes without wasting a single minute time



Graph No. 6: Respondents review on Trust Issues while doing online transactions

From the graph no. 6, it is showing that respondents do agree that online mode of doing transactions offers a lot of risk as compared with doing offline mode of transactions. As in the above graph, the percentage showing 36.9 percent of total 160 respondents which is 59 respondents agree and 33.8 percent of 160 respondents which is 54 respondents strongly agree that the online mode of payments are most risky and there are chances of getting loss in money, as there are about Rs. 228 crore online frauds in total of 52000 cases of Banks, thus mostly agree to the matter that online Transactions are having lots of trust Issues.



Graph No. 7: Respondents review on E- Payment System better than cash payment

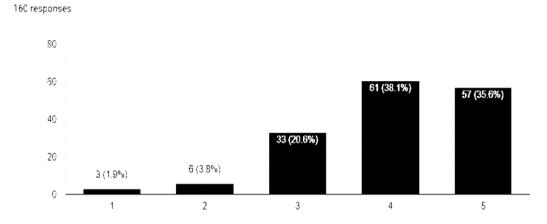
From the graph No. 7, it is showing that majority of the respondents agree that online payments provide greater option for making payment of total 160 respondents 44.4% strongly agrees and 38.8% agrees that they feel, online transactions provide greater options than cash, but when it comes to offline mode it is only cash which is involved in doing transactions. Online mode or E- payments provide options like Google Pay, BHIM UPI, Paytm, PhonePe etc. to deal with transactions.

Electronic payment permits your customers to form cashless payments for product and services through cards, mobile phones or the net. It presents variety of benefits, together with hyperbolic sales and reduced group action prices.

#### Various categories of Electronic Payment Systems

- (ACH)
- Card Services (ATM, credit, debit, prepaid)
- Mobile payments.
- NEFT/RTGS Transactions
- Google Pay, BHIM UPI, PhonePe etc.

Do you feel that E-Payments system of transaction is better than cash.



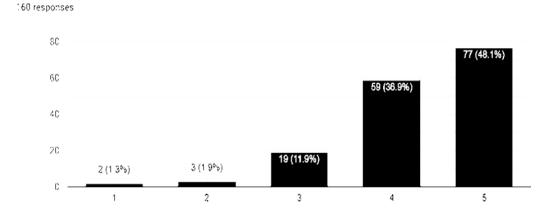
Graph No. 8: Respondents review on E- Payment System better than cash payment

From the graph No. 8, it is clearly indicating, Cost savings through accumulated potency and speed, transparency and security by increasing answerability and trailing, reducing corruption, and thieving as a result, financial inclusion by advancing access to a variety of economic services, as well as savings accounts and insurance merchandise.

As out of 160 respondents 38.1% agree that online payment system is better than Cash Payments and 35.6% strongly agree that online Mode of E-Payment

#### transactions are better than Cash.

Do you continue with the usage of E-Payments in the future as well.



Graph No. 9: Respondents review on future usage of E- Payment System

From the graph No. 9, it is showing that majority of respondents i.e. 48.1% to strongly agree and 36.9% agree total making 136 out of 160 to use E-Payments System in future as well, hardly any person among 160 disagree to future use of online payment, Future of Electronic Payments in 2019, as the financial year 2018 saw a variety of great innovations within the payments trade, with new laws and rising technologies conducive to the transformation in areas like payments- channel integration, information protection, and digital identity. Thus the online Mode of making and receiving the funds is one of the easiest and most time efficient ways of doing. It is also can't be ignored that in future Individuals are occupied with lots of work and very less time is left with them, so in order to make timely payments they require online mode.

The Future of E-Payment Technology is growing, as the major growth in relation to E-commerce projected in Business to Consumer (B to C) Market worth 36.5 Billion and is reported as a double in growth from recent years and is also expected to 26.5 percent Compounded annual growth rate by financial year 2021.

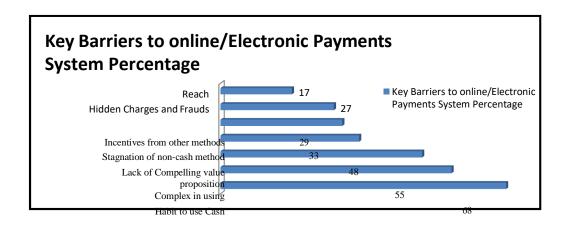
The E-Payment System in the year 2019 differentiated by value shows Digital Wallets or E- wallets including Paytm, Amazon Pay, BHIM UPI, PhonePe etc. are having total contribution of 25 percent of total payment value, and the payments with Cards i.e. Debit Cards, Credit Cards and virtual cards payment covers 29 percent of total market payment modes, Bank transfers to have contribution of 20 percent, cash payment transactions also having share of 17 percent in total payments made in India by the end of financial year 2019.

To prove the reliability of Information received from the respondents, Z-TEST is applied to prove whether the information is accurate

# z-Test: Two Sample for Means

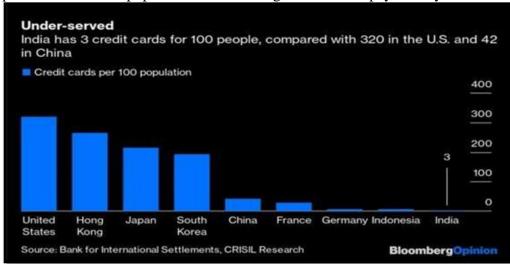
Particulars	Do you feel that E-Payments system of transaction is better than cash?	Do you continue with the usage of E-Payments in the future as well?
Mean	4.01875	4.2875
Known Variance	0.88643	0.7092
Observations	160	160
Hypothesized Mean Difference	0	
Z	-2.691177652	
$P(Z \le z)$ one-tail	0.003560013	
z Critical one-tail	1.644853627	
$P(Z \le z)$ two-tail	0.007120027	
z Critical two-tail	1.959963985	

The given sample size is 160, we have used Z-test for comparison of Means and find that at 95 percent of level of significance, and P value for two-tail Z test is 0.007120027 which is less than even than 5% level of significance, thus we will reject the null hypothesis which is less than P value, thus we will accept the Alternate hypothesis it means there is some impact/relationship of Individuals feel E-Payment Mode of transaction is better than cash and future use of E-Payment.



Graph no. 10: Key barriers to growth in digital/electronic Payments

From the graph No. 10, the major drawback of not using Digital payments system or for a very low penetration level of users having access to Debit cards or credit cards for payments is the rigidity nature as there are still users who have a habit of using cash, thus cash contributes to the major proposition of about 68 percent and lowest barrier covering for declining of digital payments by the users is Frauds or mishaps and sometimes the hidden charges which are levied while doing online transactions contributing to about 27 percent, and last point of concern is the reach, as in India there are still places where digital payments are not used, or generally, small business houses tend to avoid digital payments to have liquid cash with them, thus cash contributes to about 16



percent of the total population from dealing in the online payment system.

Graph no. 11: Showing report published by Bloomberg CRISIL Research published on 2<sup>nd</sup> December, 2019 for further information <ref. no> <a href="https://www.bloombergquint.com/gadfly/indian-bank-s-credit-card-ipo-reflects-the-ambani-factor">https://www.bloombergquint.com/gadfly/indian-bank-s-credit-card-ipo-reflects-the-ambani-factor</a>

From the graph No. 11, it is showing the penetration level of credit cards which are been issued to the individuals in India is least with only 3 cards out of every 100 population, thus making them difficult to buy goods and services at their ease, as the credit cards provide the customers to buy goods and services over and above the value which is present in the Bank account, and to repay with convenience. The above graph when compared with other countries, India is at its lowest position even China's population is also having 42 cards per 100 population and in the case of United Nations the number is highest with about 320 cards per 100 population. Thus, from the graph, we can easily predict the level of spending by individuals in the Indian Economy.

#### Conclusion

As the concept of Digital India and Skill India succeeding in the India, this proves to be most helpful, stating that India is a growing and there has been a speedy change from traditional ways of doing transactions and making payments to more updated and innovative way of dealing with day to day payments which is through online mode. The penetration level of cards i.e. Credit cards and Debit Cards is also growing as the government initiative to move to cashless economy will primarily grow in India, after Demonetization, UPI Payments took a lead in the online payments as it doesn't require any bank or beneficiary's details in making payments.

There is no doubt that it is very difficult to have 100 percent penetration level in terms of Online mode of doing payment and also the further use of Payment applications for the purpose of doing transactions, but the government can take precautionary measures to provide well form of literacy system to all the youth who are having there bank account specially and Thus will help India to become a Cashless economy in near future.

#### References

- Allen, H. (2003). Innovations in retail payments: e-payments. *Bank of England Quarterly Bulletin*, 43(4), 428–438.
- Georgescu, M. (2001). the Emergence of Electronic Payment Systems for the Growth of E- Business. *Methodology*.
- Heng, S. (2011). E-Payments: Modern Complement to Traditional Payment Systems. SSRN Electronic Journal, 44. https://doi.org/10.2139/ssrn.542523
- Kabir, M. A., Saidin, S. Z., & Ahmi, A. (2017). Analysis of factors that influence electronic payment adoption. *Journal of Engineering and Applied Sciences*, 12(Specialissue3), 6560–6568. https://doi.org/10.3923/jeasci.2017.6560.6568
- Papadopoulos, G. (2011). Electronic Money and the Possibility of a Cashless Society. *SSRN Electronic Journal*, 1–22. https://doi.org/10.2139/ssrn.982781
- Saegusa, T., Taka-ishi, N., Takami, M., & Ito, y. (1971). Acid catalyzed reaction of isocyanide With epoxide. *Synthetic Communications*, *1*(2), 99–102. https://doi.org/10.1080/00397917108081623
- 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*, 13(6), 68–83. https://doi.org/10.3991/ijim.v13i06.9875
- Systems, T. P., Standards, C. B. P., & Cash, E. (2006). 7 Electronic Payment Systems A Brief History of Cash Money. *Exchange Organizational Behavior Teaching Journal*, 1–35.
- Vu, A. T., Le, T. P., Duong, T. D., & Nguyen, T. T. (2018). Econometrics for Financial Applications. *In International Econometric Conference* of Vietnam, 2(January), 397–420. https://doi.org/10.1007/978-3-319-73150-6
- D, J., & Kaur, J. (2017). A study on consumer preference towards online shopping and traditional shopping. *South Asian Journal of Marketing & Management Research*, 7(4), 5. https://doi.org/10.5958/2249-877x.2017.00017.0
- DIGITAL INDIA Sandeep Mertia Keywords for India: Conceptual Lexicon for the 21. (2020), (February).
- Kaur, K., & Pathak, A. (2015). E-Payment System on E-Commerce in India. *International Journal of Engineering Research and Applications*, 5(2), 79–87. Retrieved from http://ijera.com/papers/Vol5\_issue2/Part 1/M502017987.pdf
- Mahapatra, S. (2018). A Study of Awareness among Youth about Digital India Initiative A Study of Awareness among Youth about Digital India

- Initiative Prof . Samita Kher Sinhgad Institute of Management Sinhgad Institute of Managemant Sinhgad Institute of Managemant Sinhgad Inst, (January).
- D, J., & Kaur, J. (2017). A study on consumer preference towards online shopping and traditional shopping. *South Asian Journal of Marketing & Management Research*, 7(4), 5. https://doi.org/10.5958/2249-877x.2017.00017.0
- DIGITAL INDIA Sandeep Mertia Keywords for India: Conceptual Lexicon for the 21. (2020), (February).
- Kaur, K., & Pathak, A. (2015). E-Payment System on E-Commerce in India. *International Journal of Engineering Research and Applications*, 5(2), 79–87. Retrieved from http://ijera.com/papers/Vol5\_issue2/Part 1/M502017987.pdf
- Mahapatra, S. (2018). A Study of Awareness among Youth about Digital India Initiative A Study of Awareness among Youth about Digital India Initiative Prof . Samita Kher Sinhgad Institute of Management Sinhgad Institute of Managemant Sinhgad Inst, (January).