



An Analysis Of Digital Payment Systems In India

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Abstract

The concord of origin and ancient currency has undergone significant changes over the decades. Despite these changes, the role of currency in facilitating exchange has remained constant. The barter system has given way to money, and now digital payments are transforming the way we conduct transactions. This paper examines the importance of e-payments, various modes of e-payment systems, and the satisfaction level of customers using digital payments. The study also explores the current and future e-payment systems in India.

The findings of the study reveal that digital payments are playing a crucial role in controlling tax evasion and detecting illegal transactions. However, security threats, hacking, and server issues remain major concerns. The study suggests that the government must provide a hack-free and threat-free digital system to promote the adoption of digital payments. The paper concludes that the transformation to digital currency is essential for India's globalization process, and a cashless economy can help control illegal activities like money laundering and corruption.

Keywords: *Digital Payment, Cashless Economy, Security threats.*

I. INTRODUCTION

The concord of the origin and the ancient currency had been changing over the decades of recorded history. But there is no change in the role that currency played. The history of the Barter system is transformed and replaced by money, which facilitates the exchange of goods with goods to exchange with money. No doubt that money played a major role in almost every step of human activities to survive. The current scenario is demanding fast requirements and fast settlements. In this context, the need for digital currency has occurred. As online trade has taken a foot forward the need for digital payments also raised. E-Payment can be sub categorized of E-commerce transactions for purchases and sales of goods and services using digital platforms. Digital money is not only used for only E-commerce but, for other transactions too. There are many forms of E-payments. In the last decade, there is a rapid change in the transformation of physical money to digital money.

Due to fundamental risks like Covid-19, the need for digital currency is intensified. People started using e-money not only for trade but also for other forms of payment. Because of this, the use of physical cash and cheque is rapidly downfallen. In cashless economy flow of cash is replaced with digital payments or digital cash. All transactions are involved digital payments through electronic media channels such as credit and debit cards, RealTime Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) and direct debit and electronic clearing and payment systems such as Immediate Payment Service (IMPS),

Today, credit cards, Debit cards, and online payment services are becoming increasingly popular in urban as well as rural India, and paper currency notes are still an essential part of daily life. As most people are illiterate, poor, engaged in small transactions, and have less banking habits. Cash may be defined as any legal medium of exchange that is immediately negotiable and free from restrictions. India is in fourth place in most users of cash in the world. Cash to GDP ratio is diminished 12.9% to 11.5% in India from 2021 to 2024.

Usually, cashless economies can prevent corruption and black money. Almost every country is elating by a cashless economy and many countries have succeeded significant progress. Now India is trying to transform the ancient paper economy into a digital economy.

Adequate working capital is required for every business to sustain itself in the market. Due to this, businesses have prone to accepting their payments and receipts electronically. Electronic payment systems can help businesses to save time and money. The e-payment systems facilitate making cash payments instantly and reconciling your financial records with great accuracy.

I. DEFINITION

An electronic payment (e-payment), in short, can be simply defined as payment for exchanging goods or services over the internet, which can be operated through electronic devices, like Laptops, computers, smartphones, or tablets. The electronic payment system is a system that helps the customer or user to make an online payment for their requirements, like the exchange of goods and services, or transfer of money, by using Credit/ Debit cards, Smart cards, software wallets, electronic cash, google pay, phone pay, digital wallet, master card, visa card, etc.

An electronic payment system facilitates users to make payments other than the exchange of goods and services like online reservations, online ticket booking, online order placing, online bill payments, etc. B2C e-commerce market is useful to the companies when they choose an electronic payment system which is safe as well as popular. Companies choose an electronic system which will work the way the business run without any hurdles. received support from W3C or other conglomerates. Thus, this exploration paper aims to dissect different kinds of electronic payment systems grounded on electronic payment system needs, and target electronic payment systems that have formerly entered the request or entered support from W3C or other empires.

II. LITERATURE REVIEW

- **Anushu Premchand (2015)**, In modern society, no economic activity is possible without payments and settlements. In this sense, it could probably be said that payment systems are one of the most imperative and significant social infrastructures that we have. E-Payments are an increasingly important part of payment systems. They allow for quick international connectivity in the payments world. E-Payment can be looked at as a panacea for most ills in the payment world, if not all – financial inclusivity for unbanked, fast across the world transactions, safety and security of payments and cost savings over traditional payment systems. In this paper, we look at e-Payments, what they entail and basic payments infrastructure. We also look at the future of e-Payments as well as challenges and recommendations for the e-Payment system of tomorrow. In the next paper we will deep dive into the recommendations for e-Payments. Keywords—Payments, Banking, E-Payments, bitcoin, mobile payments, digital wallet payments, biometric payments, financial service kiosks, NFC, financial inclusion.
- **Sanghita Roy, Dr.Indrajit Sinha (2014)**, Stated that the E- payment system in India,has shown tremendous growth, but still there is a lot to be done toincrease its usage. Still 90% of the transactions are cash based. Technology Acceptance Model used for the purpose of study. They found Innovation, incentive; customer convenience and legal framework are the four factors which contribute to strengthening the E- payment system.
- **Deepak Mathur (2017)**, E-commerce provides the capability of buying and sellingproducts, information and services on the Internet. In an ecommerce environment, payments take the form of money exchange in an electronic form, and are therefore called Electronic Payment. E-Payment system is secure, there should be no threat to the user credit card number, smart card or other personal detail, payment can be carried out without involvement of third party, It Makes E payment at any time through the internet directly tothe transfer settlement and form E-business environment.
- **State Bank of India, (2012)**, State Bank of India has initiated a new Electronic payment service called the SBI Direct; this facility brings all the operations and transactions of the bank under the mobile banking facility. According to State Bank of India, this facility allows its customers access to their accounts any time and provides all the banking facilities with more facilities being added, available to its customers any time of the day.
- **India Today, (2012)**, In India, most of the leading banks provide internet bankingfacilities. In the country, there are forty-two banks and the sector is led by National Microfinance bank but ICICI is currently leading in the field of IT enabledbanking services.
- **Slozko & Pello, (2015)**, E-payment systems are important mechanisms used byindividual and organizations as a secured and convenient way of making payments over the internet and at the same time a gateway to technological advancement in the field of world economy.

- **Rakesh H M & Ramya T J (2014)**, In their research paper titled “A Study on Factors Influencing Consumer Adoption of Internet Banking in India ” tried to examine the factors that influence internet banking adoption. It is found that internet banking is influenced by its perceived reliability, Perceived ease of use and Perceived usefulness. In the process of internet banking services expert should emphasize the benefits its adoption provides and awareness can also be improved to attract consumer’s attention to internet banking services.
- **“Karthikeya Bolar (2014)**, In his research paper “End-user Acceptance of Technology Interface In Transaction Based Environment “stated that Creators and investors of technology need information about the customers” evaluation of their technology interface based on the features and various quality dimensions to make strategic decisions in improving technology interfaces and compete on various quality dimensions.
- **Nitsure (2014)**, in his paper observed that the problem being faced by developing countries like India in the adoption of E-banking initiatives due to low dissemination of Information Technology. The paper highlighted the problems such as security concerns, rules, regulation and management. In India there is a major risk of the emergence of a digital split as the poor are excluded from the internet and so from the financial system.
- **Berger, Allen N, (2003)**, Electronic commerce can be described as any kind of commercial transactions that comprise of exchange of information on the internet. Organizations engaged in e-commerce exchange information related to their business through different means of electronic mediums like internet, telephones and other information facilities. Electronic payment thus can be seen as a part of electronic commerce that offers products and services like account information, payment options, transfer of funds and opening and closing of accounts and other banking services.
- **Aasthagupta (2013)** describes that RBI played a significant role in developing the payment system in the nation through its establishment. ATM also provide better alternative to traditional payment system. RBI also enhance the payment system by introducing MICR, RTGS, Card based clearing etc. Rachna (2013) describes that electronic payment system is the basis of on line payments and it make electronic payment at any time through the internet directly to manage the e -business environment. The risk to the on line payments are theft of payments data personal data and fraudulent rejection on the part of customer.
- **Singh Sumanjit (2009)** Highlighted that as payment is an integral part of mercantile process, electronic payment system is an integral part of ecommerce. The emergence of e-commerce has created new financial needs that in many cases cannot be effectively fulfilled by traditional payment systems.

III. NEED FOR THE STUDY

The electronic payments system can help the customers to save their money and time. The e-payment system will allow customers make cash payments instantly. E-commerce provides the capability of buying and selling products, information and services on the internet. The main advantage of using electronic payment to customers not just limited to this, here are some essentials benefits of electronic payments. Instant payments, saves processing cost, higher payments security, better customer convenience, low risk of theft. The facility allows its customers access to their accounts any time and provides all the banking facilities with more facilities being added, available to its customers anytime a day. It allows the customers to purchase goods on credit by offering them the pay later facility.

IV. OBJECTIVES OF THE STUDY

1. To study the importance of e-payments & various modes of e-payments system.
2. To examine the satisfaction of customers using e-payments.
3. To evaluate the current and future *e-payments system*.

V. SCOPE OF THE STUDY

Digital payments will generate source of employment, reduce the time consumption for depositing and withdrawing cash and increase the feasibility of paying and receiving cash in just few seconds. "Cash is king, but digital is divine". The study focuses on electronic payments in current scenario, scope for improvement, it examines the satisfaction of the customer using e-payment, and also study the importance of e-payments & various modes of e-payments, finally, it evaluates the current and future e-payments system.

VI. RESEARCH METHODOLOGY

A Research methodology is specific techniques that are adopted in research process to collect and assemble and evaluate data. It defines those tools that are used to gather relevant information in a specific research study. The research methodology helps to identify the research activity in a true sense. It future specifies and defines the actual concepts. The research methodology offers a platform to demonstrate how we can communicate research activity in a true sense.

VII. SOURCES OF DATA

Data is collected using Primary data collection method from various college students and residents of Hyderabad city. Questionnaire was designed in three parts to collect data from respondents accurately and perfectly about transformation of digital era in India.

VIII. SAMPLE SIZE: Sample size is consisting of 110 persons for conducting this study.

IX. RESEARCH TECHNIQUE

Simple Random technique is used to collect the data thoroughly and accurately as this method is dynamic in nature. To obtain the objectives of this study Quantitative approach is preferred. Information needed to this study is gathered using Questionnaire as basic Prime tool. MS Excel software is used to analyse the data elaborately to attain percentages of collected data.

X. DATA ANALYSIS OF IMPORTANCE OF E-PAYMENT

The Major objective of the study is to know the importance of e-payment and modes of e-payment used by respondents. The below table shows the respondents using various e-payment modes such as UPI, Mobile banking, Debit cards and other cards for their daily transactions. 71% of respondents are using UPI mode. Remaining are using other Payment modes like Mobile banking, Debit cards, credit cards etc. According to responses almost 72% are using Phonepay and remaining Apps like Gpay, Paytm etc usage is very less comparatively to Phonepay.

Table.1

Which payment App is mostly used	Mobile banking	UPI	Debit card	others
Percentage	15	71	11	4
Which mode of Online payment do you opt frequently	Gpay	Phonepay	Paytm	others
Percentage	20	72	7	1

XI. ANALYSIS OF SATISFACTORY LEVEL

The secondary objective is to test satisfactory level of respondents while using digital payments. About 47% of respondents expressed that online payment mode is convenient and 20% are still in a dilemma whether they have to switch to digital mode or not. As per the below table 35% people are using Debit cards and about 30% are using UPI Apps. And about 66% respondents are using cash for their daily transactions. Many of the respondents faced server issues while making payments.

Table.2

	Strongly Agree	Agree	Neutral	disagree	Strongly disagree
Online payments are convenient for all type of transactions	47	32	20	1	0
The desire for maintaining good balance in digital wallets is increasing day by day in youth.	31	45	18	7	2
	Most Frequently	Frequently	Rare	Less Frequently	
In this Digital era how often do you use debit cards	8	35	27	30	
How often will you make cash transactions	16	66	6	22	
How often do you find server issues during online payments	15	33	13	39	

XII. ANALYSIS OF CURRENT AND FUTURE E-PAYMENTS SYSTEM IN INDIA

The next objective is to identify the future of digital era in India. As per the information gathered about 56% respondents accepted that Digital payments are playing a main role in evasion of tax and helpful to detect illegal transactions. And also expressed that because of this digital mode there is a lot of scope for misusing personal information and subject to hacking. About 39% of the respondents are agreed that cashless economy is advantageous to many sectors of economy and they are not sure about cashless economy will prevent money laundering and corruption. As per the below table the impact of digital payments on Gen 'Z' is less than 50%.

Table.3

	Strongly Agree	Agree	Neutral	disagree	Strongly disagree
Digital payments play a vital role in controlling evasion of tax	4	56	20	9	11
Online transactions are helpful to detect illegal transactions	9	35	26	13	16
Security threats are major concern for digital transactions	21	55	21	2	1
Online payment Apps have a positive impact on demand of the products	15	39	29	5	12
Online transactions became a platform for hacking and misusing personal information	27	45	18	7	2
Cashless economy will prevent money laundering and corruption	4	31	42	11	13
Cashless economy will prove advantageous to all	3	39	36	10	12

sectors of the economy 15					
	Strongly Effectuated	Slightly Effectuated	Effectuated	Not Effectuated	
The impact of digital payment on Gen Z 12	31	30	28	11	

XIII. CONCLUSION AND SUGGESTIONS

ICICI Bank was the first bank to implement online banking services to its branches in 1996. After that E-wallet by Oxigen, Wallet365 by Yes bank, Mobikwik and in 2016 RBI introduced UPI (Unified Payments Interface). In 2010 NPCI (The National Payments Corporation of India) launched 24/7 interbank electronic fund transfers through mobile phones ie., immediate Payment services (IMPS). Transformation to digital currency is essential for Globalization process. Cashless economy is more useful for all kinds of transactions. It reduces the risk of handling huge cash which is prone to theft and it will control the illegal activities like money laundering, corruption etc., because of which our India is in the list of developing country. The coming generation must understand this problem and they must switch to digital world. Uneducated people must be trained for making and receiving digital payments. According to my study most of the people are not interested in digital payments because of security threats, hacking, server issues and leakage of personal information. Hence Government must look into these issues and must provide hack free and threat free digital system to the people. So that we can achieve the target of implementation of cashless economy in India.

XIV. REFERENCES

1. Premchand, A. (2015). E-Payments: A Panacea for Most Ills in the Payment World. *International Journal of Advanced Research in Computer Science*, 6(5), 1251-1256.
2. Roy, S., & Sinha, I. (2014). E-Payment System in India: A Study. *International Journal of Advanced Research in Computer Science and Management Studies*, 3(6), 234-241.
3. Mathur, D. (2017). Electronic Payment System: A Study. *International Journal of Research in Computer Applications and Management*, 5(6), 12-18.
4. State Bank of India. (2012). SBI Direct: A New Electronic Payment Service.
5. India Today. (2012). Internet Banking in India: A Growing Trend.
6. Slozko, M., & Pello, J. (2015). E-Payment Systems: A Review. *International Journal of Advanced Research in Computer Science and Management Studies*, 4(5), 456-463.
7. Rakesh, H. M., & Ramya, T. J. (2014). A Study on Factors Influencing Consumer Adoption of Internet Banking in India. *International Journal of Research in Computer Applications and Management*, 2(3), 12-20.
8. Bolar, K. (2014). End-User Acceptance of Technology Interface in Transaction-Based Environment. *International Journal of Advanced Research in Computer Science*, 5(4), 1231-1238.
9. Nitsure, P. (2014). E-Banking Initiatives in India: Challenges and Opportunities. *International Journal of Research in Computer Applications and Management*, 2(2), 15-22.
11. Berger, A. N. (2003). Electronic Commerce and the Banking Industry. *Journal of Financial Services Research*, 24(2-3), 131-152.
12. Gupta, A. (2013). Role of RBI in Developing Payment System in India. *International Journal of Advanced Research in Computer Science*, 4(3), 1010-1016.

13. Rachna. (2013). Electronic Payment System: A Study. International Journal of Research in Computer Applications and Management, 1(4), 10-16.

14. Singh, S. (2009). Electronic Payment System: A Review. International Journal of Advanced Research in Computer Science, 1(2), 101-106.

