

Digital Payment System: A Study in the Indian Context

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ABSTRACT

The Information Technology (IT) has transformed various aspects of our lives. During the demonetization, the Government of India has instructed all the people to complete their transactions through online mode. The common people changed their interests from traditional payment systems to the modern payment systems, which is commonly known as the digital payment system, which is considered safe and convenient.

E-payment system depends on security and trust and hence its usage also depends upon both. E-payment system is a technology which does not involve the use of physical cash, rather all the transactions are done through electronic or online medium. Paperless and cashless with this idea of our Prime Minister Sri Narendra Modi launched digital campaign on July 2015. But actual digital payment was observed mainly after another important announcement of our Prime Minister on 8th September 2017, that is the Demonetization when the Rs 500 and Rs 1000 were banned. It really surfaced the way for digital payment system to meet the modes of liquidity and cash crunch. New digital payment systems like AEPS, UPI, USSD etc were introduced.

Key words: Digital Payment, Security, Accessibility, E-payment

I. INTRODUCTION

Technology and innovation help in encouraging business activities. Technology has also changed the prospect of payment system. The new technology system has changed the cash-based payment systems into cashless payments as they are considered more effective and efficient. The features of digital payment systems include easy to use, convenient, safe and time saving. It has made digital transaction profitable and gainful in the field of payment than the traditional that is the cash-based payment system.

Digital payment systems were encouraged by the govt of India after the announcement of demonetization on 8th November 2016. The main objective behind this was to achieve cashless economy in the long run. It was difficult to record all the transactions and transfers made by people to other parties due to the increasing rate of corruption and black money in India. Digital payment helps in attaining transparency in the operations and attaining governance.

In order to promote and encourage digital payments in India, the govt. of India has taken several measures. The govt aims to create a digitally empowered economy that is cashless and paperless. Digital payment system is often easy to use and are also convenient. They can be used to make payments at any point of time and anywhere. Digital payments are a good substitute of physical mode of payment that is through cash.

There are a number of mediators leading to the growth of digital payment systems. They are introduction of internet technology into the smart phones, which is the base of using any digital payment applications, NBFC's, rise of financial technology sector and the use of incentives and tax breaks by the govt. These factors help in creating a positive atmosphere for carrying out the payment activities.

Digital payment system is defined as the mode of payment through any digital or electronic medium. There is no use of hard cash or any cheques in this system. In case of cash mode of payment there is both burden and time consuming for both customer and shopkeeper. In case of customer, first of all he/she has to withdraw money from his/her account. Then he/she has to make necessary payments at the shop. In case of shopkeeper, he/she has to go to the bank to deposit the money which he/she has received from the customer. But in case of digital payment system, the money gets immediately transferred from the customer's account to the shopkeeper's account. This process is time saving. Also, the shopkeeper

does not need to go to bank to deposit the cash in the account. The various modes of digital payment system include debit and credit cards, UPI (Unified Payment Interface), AEPS (Aadhaar Enabled Payment System), QR Code, E-Wallet (Paytm, PhonePe, Google Pe), M-Banking, Internet Banking etc.

The alternative names or synonyms of digital payments are electronic payments, online payments and cashless transactions.

II. LITERATURE REVIEW

JussiSnellman, 2001:“The e-payment is any payment service that makes use of information and communication technologies including Integrated Circuits (IC), cards, cryptography and telecommunications”.

Government of India, 2017:Electronic funds transfer means any transfer of funds which is initiated by a person by way of instructions, authorizations, or order to a bank to debit or credit an account maintained with that bank through electronic means and includes POS transfers; ATM machine transactions; direct deposits or withdrawal of funds, transfers initiated by telephone, internet and card payment.

Berger, 2003:Many kinds of research have been considering cause and effect relationships

between the use of electronic payments and instruments and the profitability of the organisations. Electronic payment technologies increase productivity and profitability.

Humphery,2006:Development in the use of electronic payment systems is related to remarkable improvement in bank performance.

Zandi, 2013:An efficient payment infrastructure facilities trade, services and transfers of funds, fostering economic interactions by eliminating or reducing market frictions and costs. Consumption and trade increase, in turn, support higher production and thereby overall economic development.

Slozko&Pello, 2015:E-payment systems are important mechanisms used by individual and organisations as a secured and convenient way of making payments over the internet and at the same time a gateway to technological advancement in the world of economy

Nisture, 2014:In his paper he 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 problem like security concerns, rules and regulations and

management. In India there is a major risk of emergence of digital split as the poor are excited from the internet and from the financial system.

III. OBJECTIVES

- To understand the accessibility and the ease of usage of the Digital Payment System

IV. DATA ANALYSIS AND INTERPRETATION

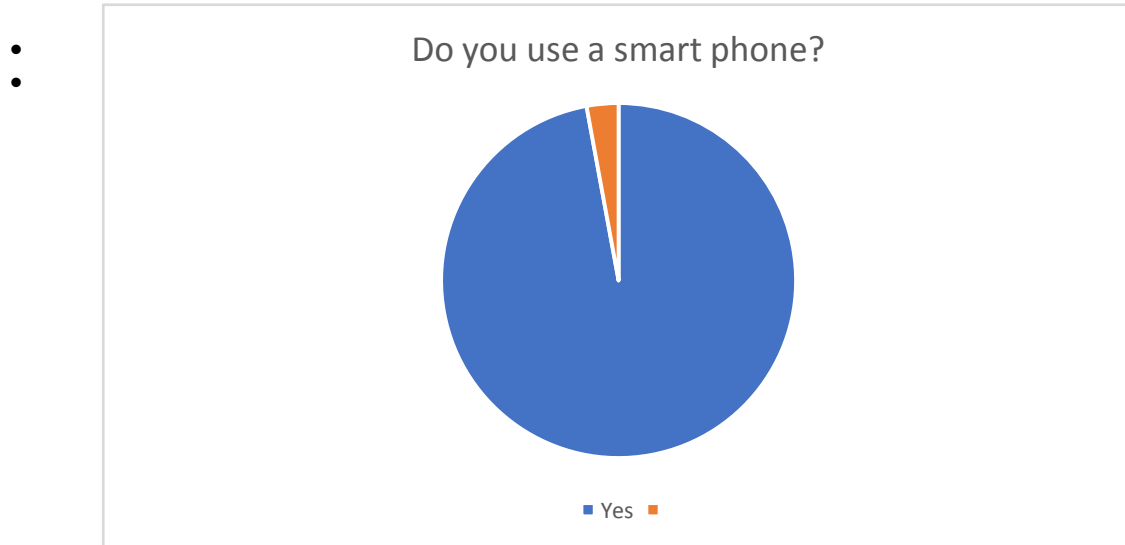
The study was conducted on 34 respondents. Data collection was done through questionnaire. The questions of the questionnaire are based on the following criterion for having a detailed understanding of the accessibility and usage of the Digital Payment system.

- Accessibility – Those who will make payments need to be easily accessible to the payment systems. In case of face-to-face transactions, there is a need of cash and debit or credit card. In case of remote transaction there is a need to visit the branch to complete the transaction or most preferably to use a cheque.
- Ease Of Use – In case of manual entry of transactions and details, there is more chances of error or simply we can say that they are error prone which can be expensive to rectify. For this main reason, the use of payment cards are being introduced as in these cases manual works have been removed.
- Safety And Reliability – End users need to have confidence that the payments which they make need to be successful. They also need to be confident the system is secure, so that in future they will not face any losses.
- Security – The system should have level of security and operational fitness corresponds with the importance of the systems.
- Interoperability – There should be high degree of interoperability with other systems.
- Open Access – Systems should be designed in such a way that in case of entry of new participants it will be easy for them to operate, and it will also be quick and cheaper.
- Risk Management – There should be potential for generating a number of risks, especially the credit risk for the participants
- Adaptability – With the evolution of new technologies the needs and preferences of both payment systems users and operators evolve over time. Systems should be easily adaptable to the changing needs and that to in the cheapest way.

The Data collected from the primary sources have been interpreted with the help of the Statistical graphs for getting a clear picture of the conditions based on the factors identified.

- Do you use a smart phone?
Yes – 97.1% (No. of respondents = 33)
No - 2.90% (No. of respondents = 1)

From the above graph it can be found that 97.1% of respondents have a smart phone 2.9% do not have a smart phone.



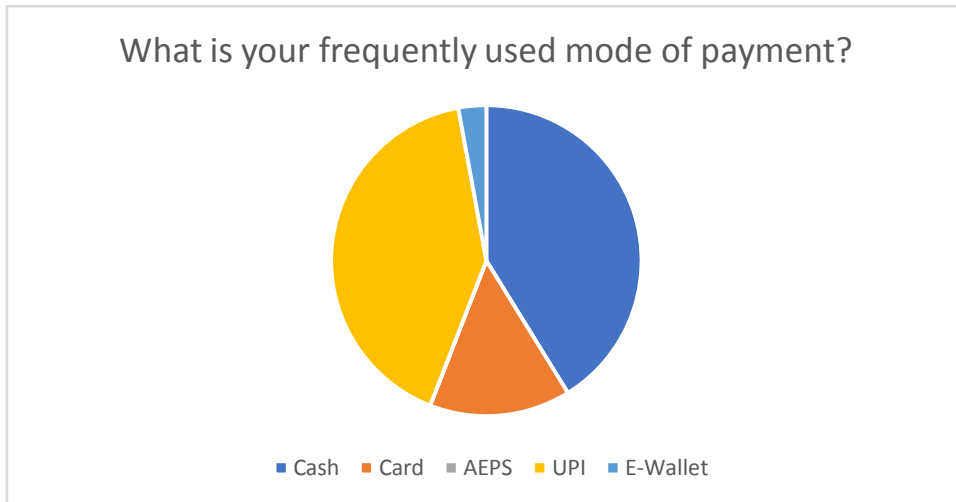
- Do you use any application for online payment?
Yes – 91.2% (No. of respondents = 31)
No – 8.8% (No. of respondents = 3)



From the above graph, 91.2% of the respondents use application for online payment, 8.8% do not use any applications for online payment.

- Which is your frequently used mode of payment?
Cash – 41.2% (No. of respondents = 14)
Card – 14.7% (No. of respondents = 5)

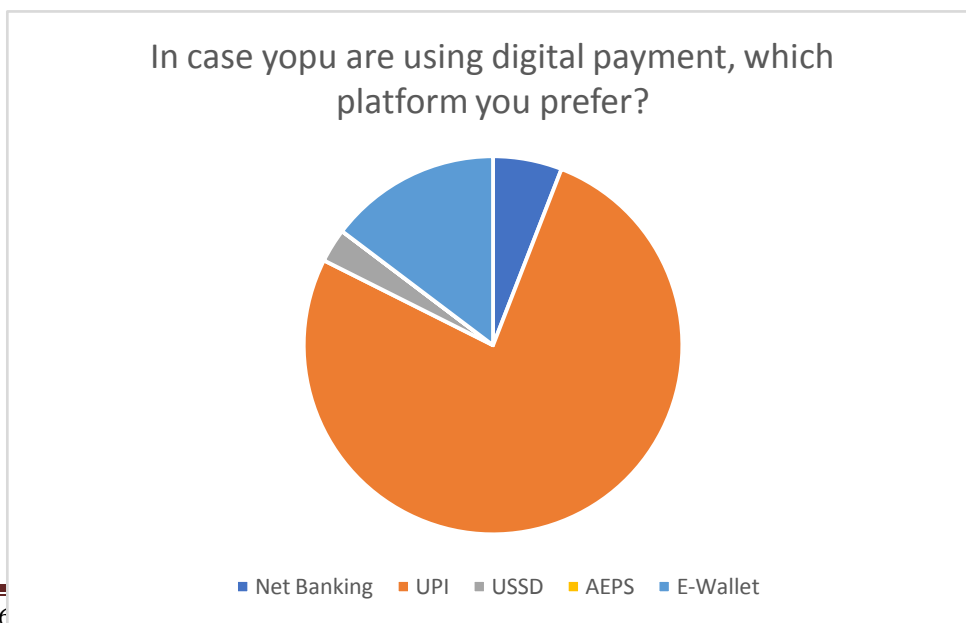
AEPS – 0% (No. of respondents = 0)
 UPI – 41.2% (No. of respondents = 14)
 E- Wallet – 2.9% (No. of respondents = 1)



From the above graph, 41.2% of the respondent use cash as the mode of payment 14.7% use card as the mode of payment. Nobody uses AEPS as the mode of payment 41.2% use UPI as the mode of payment 2.9% use E-Wallet as the mode of payment.

- In case you are using digital payment, which platform you prefer?
 Net Banking – 5.9% (No. of respondents - 2)
 UPI – 76.5% (No. of respondents = 26)
 USSD – 2.9% (No. of respondents = 1)
 AEPS – 0% (No of respondents = 0)
 E-Wallet – 14.7% (No. of respondents = 5)

From the

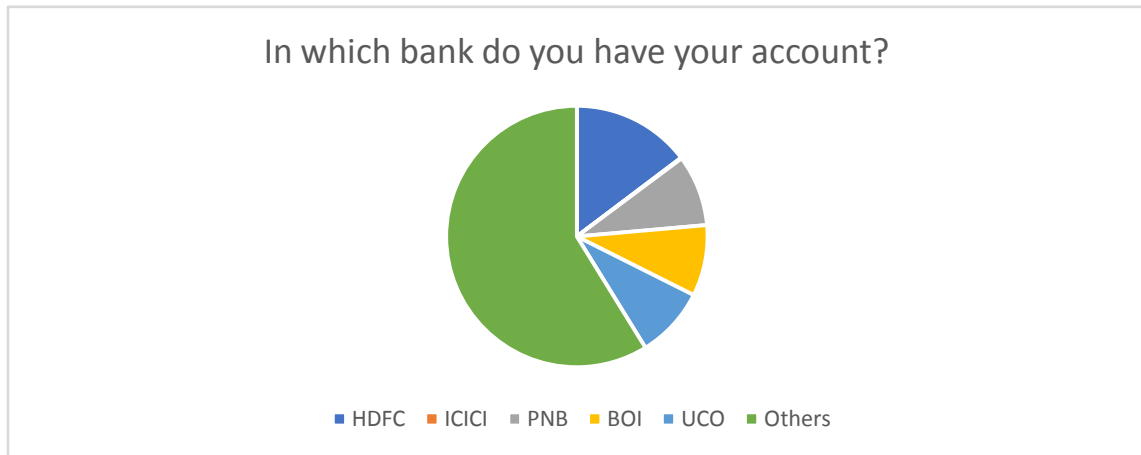


above

graph, 5.9% of the respondents prefer Net Banking, 76.5% prefer UPI, 2.9% prefer USSD. None of the respondents prefer AEPS, 14.7% prefer E-Wallet.

• In which bank do you have your account?

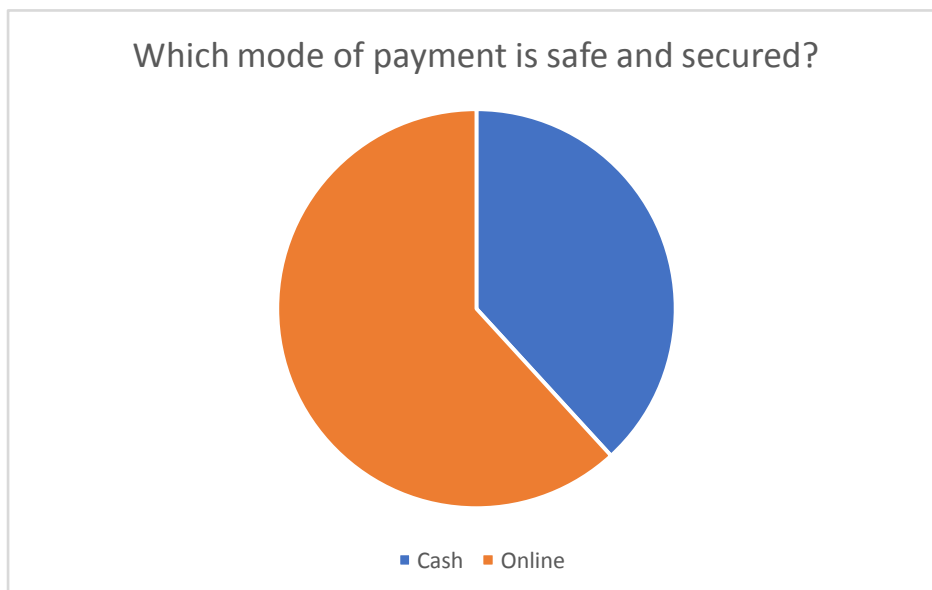
- HDFC – 14.7% (No. of respondents = 5)
- ICICI – 0% (No. of respondents = 0)
- PNB – 8.8% (No. of respondents = 3)
- BOI – 8.8% (No. of respondents = 3)
- UCO – 8.8% (No. of respondents = 3)
- UCO – 8.8% (No. of respondents = 3)
- Others – 58.8% (No. of respondents = 20)



From the above graph, 14.7% of the respondents have their account in HDFC. None of the respondents have their account in ICICI. 8.8% of the respondents have their account in PNB. 8.8% of the respondents have their account in BOI. 8.8% of the respondents have their account in UCO. 58.8% of the respondents have their account in other banks.

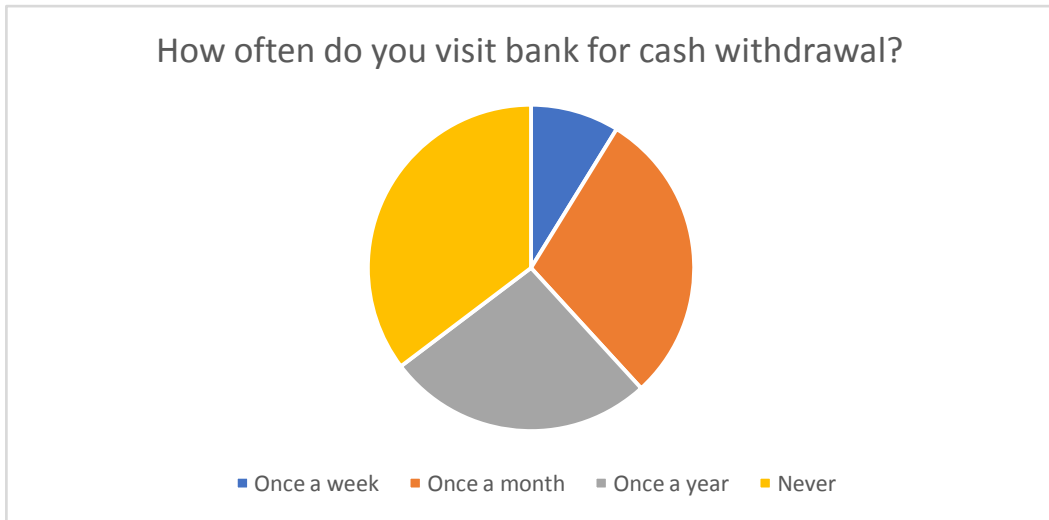
• Which mode of payment is safe and secured?

- Cash – 38.2% (No. of respondents = 13)
- Online – 61.8% (No. of respondents = 21)



From the above graph, 38.2% of the respondents prefer cash as the safest and secured mode of payment, 61.8% of the respondents prefer online mode of payment as the safest and secured.

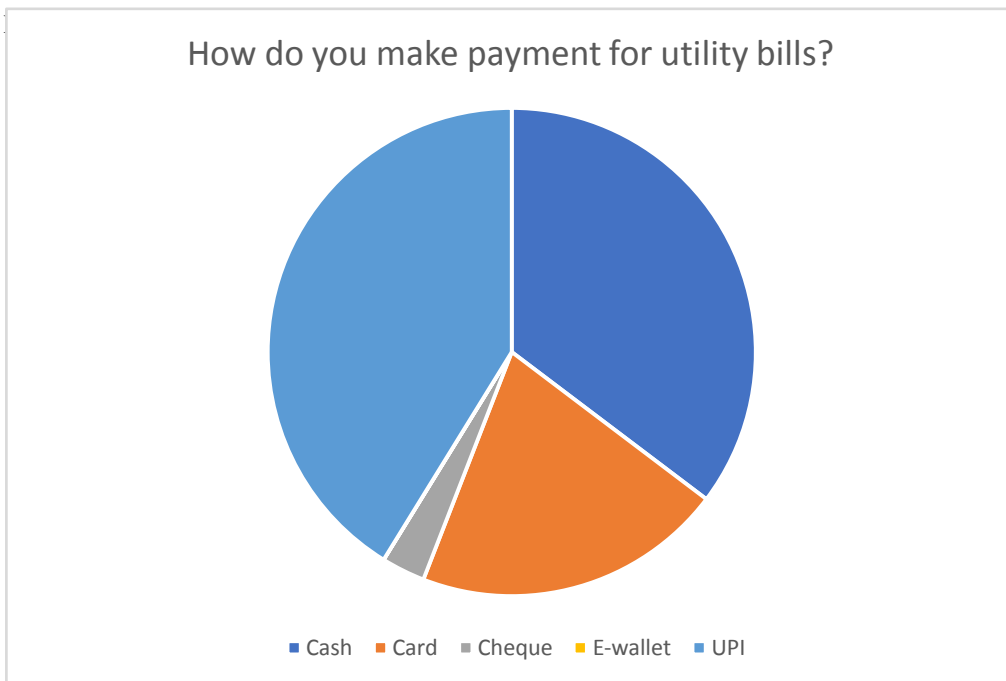
- How often do you visit bank for cash withdrawal?
 Once a week – 8.8% (No. of respondents = 3)
 Once a month – 29.4% (No. of respondents =10)
 Once a year – 26.5% (No. of respondents =9)
 Never – 35.3% (No. of respondents =12)



From the above graph, 8.8% of the respondents visit the bank weekly once for cash withdrawal, 29.4% of the respondents visit bank once a month for cash withdrawal, 26.5% of the respondents visit bank on yearly basis for cash withdrawal, and 35.3% of the respondents never visit bank.

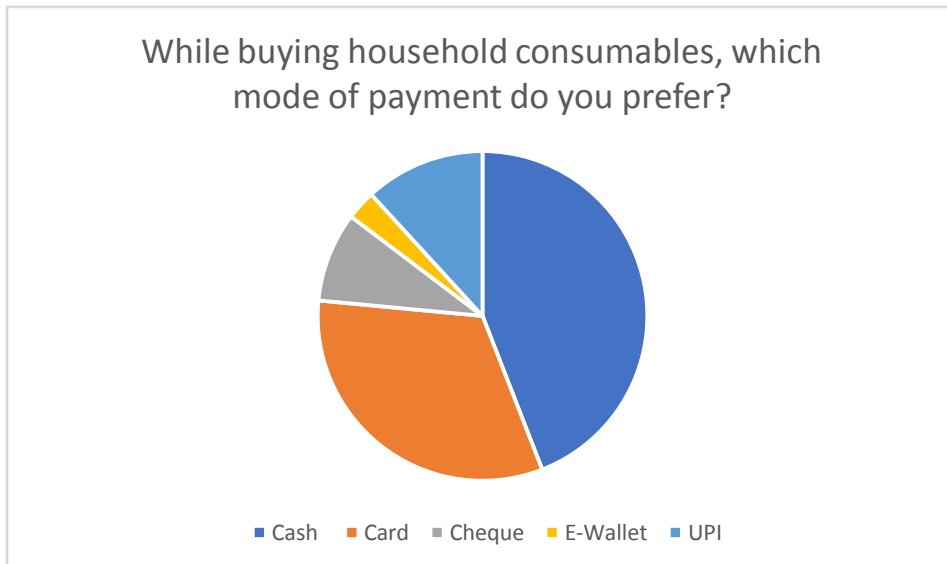
Cash – 35.3% (No. of respondents = 12)
 Card – 20.6% (No. of respondents = 7)
 Cheque – 2.9% (No. of respondents = 1)
 E-Wallet – 0% (No. of respondents = 0)
 UPI – 41.2% (No. of respondents = 14)

- How do you make payment for utility bills?



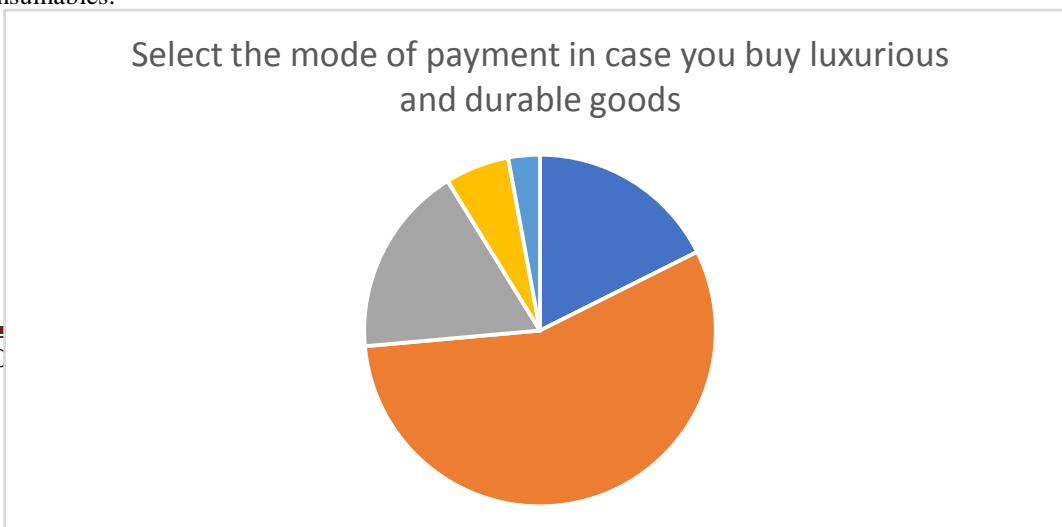
From the above graph, 35.3% of respondents prefer cash to pay their utility bills; 20.6% of respondents prefer card to pay their utility bills, 2.9% of respondents prefer cheque to pay their utility bills, No respondents prefer E-wallet to pay their utility bills, 41.2% of respondents prefer UPI to pay their utility bills.

- While buying household consumables, which mode of payment do you prefer?
 Cash – 44.1% (No. of respondents = 15)
 Card – 32.4% (No. of respondents = 11)
 Cheque – 8.8% (No. of respondents = 3)
 E-Wallet – 2.9% (No. of respondents = 1)
 UPI – 11.8% (No. of respondents = 4)



From the above graph, 44.1% of the respondents prefer cash for buying household consumables, 32.4% of the respondents prefer card for buying household consumables, 8.8% of the respondents prefer cheque for buying household consumables, 2.9% of the respondents prefer E-wallet for buying household consumables, 11.8% of the respondents prefer UPI for buying household consumables.

- Select the mode of payment in case you buy luxurious and durable goods?
 Cash – 17.6%
 Card – 55.9%
 Cheque – 17.6%
 E-Wallet – 5.9%
 UPI - 2.9%



From the above graph, 17.6% of respondents prefer cash to buy luxurious and durable goods, 55.9% of respondents prefer card to buy luxurious and durable goods, 17.6% of respondents prefer cheque to buy luxurious and durable goods, 5.9% of respondents prefer E-wallet to buy luxurious and durable goods, 2.9% of respondents prefer UPI to buy luxurious and durable goods.

V. FINDINGS OF THE STUDY

Digital payment system is revolutionary. It is Safe and secured but the Security features are the biggest and primary concern. Digital payment is very useful during any emergency when we don't have money in hands.

Digital payment is safe and everyone can use it without any fear and hesitation and access with minimal idea regarding the same. But again, it needs to work on the security aspect and let people know about it. Digital payment should be made more secure and there is need of fast servers for hassle-free payment as due to poor network some time people may not prefer online mode, but whenever necessary through UPI it is used, otherwise card payment is safe.

Scope

The digital electronics uses VLSI technology, Very Large-Scale Integration technology. It has considerably decreased the size and area of circuit boards and it has also enhanced the accuracy and performance of the systems. Digital systems also has the advantage of data encryption which is helpful for the communication purposes. Data transmitted is safe and secured. All these factors prove that digital system has wide future scope in this modern era.

Limitations

- Service Fees – Third party payment processors often charge service fees
- Inconvenient – Online payment systems may be inappropriate for offline sales
- Vulnerability of Cyberattacks – Online payment systems are more prone to

cybercriminals attacks. They often steal the people's money and their personal information and details.

- Dependence on Server – If there is problem on the server or internet, then it can disable the payment systems.

VI. CONCLUSION

Technology has undoubtedly made our life easier. It has cut across distance, space and even time. One of the technological innovations in banking, finance and commerce is the Electronic payment or the Digital Payment System. Digital payment system is developing and improving very fast. The usage, comfortability is being wider and wider day by day.

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