CHALLENGES OF INDIAN E-PAYMENT SYSTEM

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ABSTRACT:

The present era is entering into a new pace in payment system by using digital wallets filled with coupons and offers. As revolutionary change has taken place in our financial setup with digitalization of the payment system. Cash Less (Transaction) Economy helps to combat black money, corruption, counterfeit currency and terror financing. After the demonetization, the Government of India intends to move towards a Cash Less Transactions through Digital India. The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. As E-Payment Systems have received different acceptance level throughout the world, some methods of electronic payments are highly adopted while others are relatively low. This paper is aimed at analyzing and increasing awareness about various issues and challenges of electronic payment systems and offers some solutions & precautions to improve the E-Payment System quality.

The study was based on Primary Data collected from 150 individuals from kurukshetra city, India and consist some facts of Secondary Data. Samples were from different age group has been taken. In addition to, the study was confined to the countless problems that are faced by people during ONLINE TRANSACTIONS which could help them to overcome the problems. A Questionnaire technique included both close ended and open ended questions, Face-to-Face Interview and Suggestions have been taken for effective elicitation of data from the respondents. The result of the study showed that lack of awareness and training are the major reasons of less adoption of E-Payment System.

KEYWORDS: Digital wallets & Signatures, Encryption, Secure Electronic Transaction Protocol, Demonetization, Unified Payment Interface, Payment Gateway.

I.   INTRODUCTION OF E-PAYMENT SYSTEM

The payment system in any country needs to pass the litmus test of safety, security, soundness, efficiency, and accessibility. In this changing era, Electronic payment system usage is growing in different countries with different pace. E-Payment system is a subset of an e-commerce transaction to include electronic payment for buying and selling goods or services offered through Internet .In short, Electronic payment system is a system which helps the customer or user to make online payment for various purposes. All the transactions in digital payments are completed online. It is an instant and convenient way with improved encrypted features to make transparency in the economy by reducing corruption, tax evasions & terror funding etc.
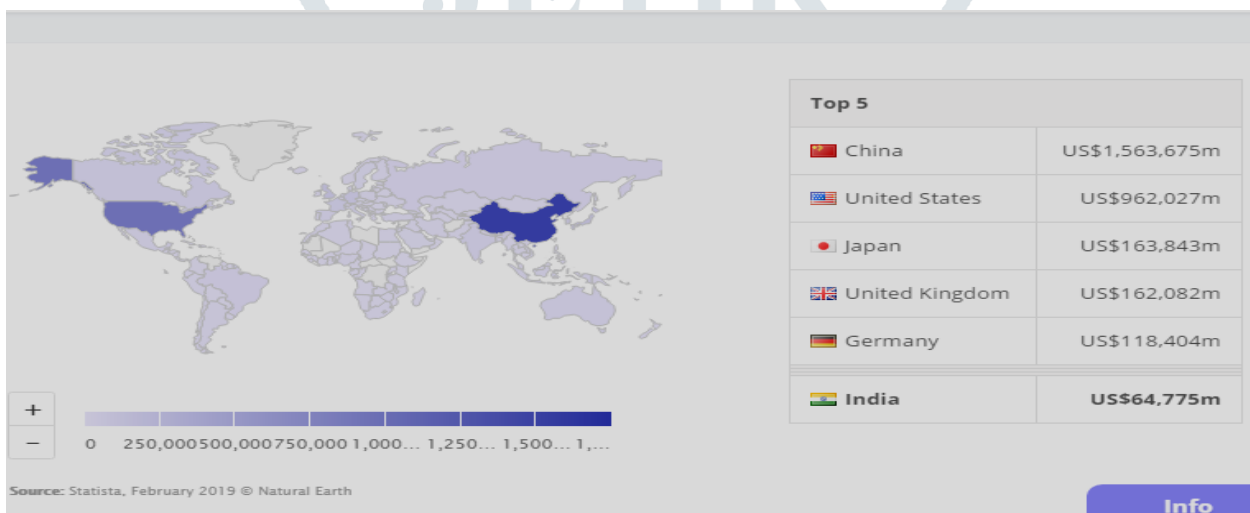
II.   INDIAN E-PAYMENT SYSTEM

Cash is the de-facto mode of payment across the globe. The transactions in India are still cash-based. While demonetization wiped out 86% of the currency from the Indian market almost 2 years ago, Demonetization disrupted the cash economy for a while with a rise in digital payments. Digital payments growth has been accelerated by four years due to demonetization. Since then, the cash is back, but mobile payments are being used twice as much. Currently, less than 5% of the transactions are cashless and there has been a strong push by the government for digital payments by promoting mobile-based payment methods like USSD as well as Aadhar based payments like AEPS and mobile ATMs. There is an audacious goal to reach 30 Billion digital payment transactions financial year. As per Credit Suisse, digital payments are going to reach 1 trillion USD in next 5 years by FY2023 from the existing 200 Billion USD (of which mobile payments constitute a bare 10 Billion USD). This growth is going to be led by mobile payments industry. While Credit and Debit cards are the most popular cashless modes of payment introduced more than 3 decades ago in India, the adoption is still steady In January 2018, the number of debit cards increased to 846.7million, with 4.23 million new cardholders, while a total of 36.24 million credit cards were in operation, with the addition of 0.7 million cards, according to the Reserve Bank of India. Between January 2017 and January 2018, India added some 7.39 million credit cards and 28.72 million debit cards.

Entry of global players into India's digital payment space is expected to grow the segment by about five-fold to USD 1 trillion by 2023, investment banking firm Credit Suisse said in a report.

GLOBAL COMPARISONS TRANSACTION VALUE OF DIGITAL PAYMENTS

Top 5	
China	US$1,563,675m
United States	US$962,027m
Japan	US$163,843m
United Kingdom	US$162,082m
Germany	US$118,404m
India	**US$64,775m**

Source: Statista, February 2019 © Natural Earth

Total transaction value in the digital payments segment amount to US$ 64.775M in 2019

IN-SCOPE

Online processed payment transactions -US$ 5963.0M

Mobile POS payments processed via smart devices at point-of-sale -US$58811.9M

III.   METHODS OF TRADITIONAL PAYMENT

Cash: As Cash is the dominant mode of payment in country like India. To increase reliance on digital means for making payments and moving India towards a less cash economy were among the stated goals of the demonetization exercise. Shocking data revealed by RBI in its report that in the 14 days before November 8, 2016- when demonetization was announced- cash worth Rs 10.01 lakh crore was in circulation in India and showed the circulation of currency was growing at 17.7per cent year on year whereas In the 14 days before the following date, i.e. November 8, 2018, cash worth Rs 18.76 lakh crore was in circulation in India, according to RBI data it has registered a higher 22.2per cent year on year growth.

Cheque: This is the second main mode of traditional payment method used in India with different types of cheque but with the increasing usage and popularity of electronic payment modes, a substantial decline in cheque usage is inevitable, all too evident

from statistics fewer cheques being cleared .RBI shows in its annual report that in 2016-17 94.8 million (volume) of non-MICR Clearing was done whereas in 2017-18 32.6 million (volume) was done which shows the drastic decrease.

IV.   E- PAYMENT OPTIONS IN INDIA

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. As part of promoting cashless transactions and converting India into less-cash society, various modes of digital payments are available.

☐ E Wallets – Paytm, PayUMoney etc.

☐ UPI – Unified payments Interface Apps

☐ Plastic Money – Debit/Credit Cards

☐ Net Banking – Online Fund Transfer

☐ Aadhaar Card – Aadhaar Enabled Payment System

V.   ROLE OF THE RBI IN ENCOURAGING E-PAYMENTS

Money can be transferred from one person to another electronically through various electronic payment systems in India. The initiatives and steps taken by the Reserve Bank of India has created a string technology based system for electronic payments, allowing seamless electronic fund transfer between two parties with very minimal transaction cost.

➢ The Payment and Settlement Systems Act, 2007 was a major step in this direction. It enables the RBI to "regulate, supervise and lay down policies involving payment and settlement space in India."

➢ In pursuit of the above-mentioned goal the RBI has granted NBFC's (Non-Banking Financial Companies) the permission to issue co branded credit cards forming partnerships with commercial banks.

➢ The KISAN CREDIT CARD Scheme was launched by NABARD in order to meet the credit needs of farmers, so that they can be free of paper money hassles and use only plastic money.

➢ A domestic card scheme known as RuPay has recently been started by the National Payments Corporation of India (NPCI), promoted by RBI and Indian Banks Association (IBA), inspired by Unionpay in China, which will be promoting the use of card, i.e. "plastic money". Initially functioning as an NPO, Rupay will focus on potential customers from rural and semi-urban areas of India. Rupay will have a much wider coverage than Visa, MasterCard or American Express cards which have always been used for card-based settlements.

➢ The NREGA (National Rural Employment Guarantee Scheme) introduced by the Government will ensure rural employment in turn ensuring that the employees get wages.

However, the Indian banking system suffers from some defects due to certain socio-cultural factors which hampers the spread of the e-payments culture even though there are many effective electronic payment channels and systems in place. Despite the infrastructure being there nearly 63% of all payments are still made in cash. A relatively small percentage of the population pays their bills electronically and most of that population is from urban India-the metropolitans.

VI.   SIGNIFICANCE OF STUDY

In the age of High Technology, the need of Electronic Payments system has been arises due to its advantages of Time savings, Expenses control, User-friendly and the main is transparency to control corruption, terror funding, black money and tax evasions. But, still in Indian Economy there is less than 5% transactions are cashless. So this paper focuses on the reasons or challenges faced in Indian E-Payment system. There are many causes due to which in Indian People still hesitate in adopting the Electronic

Payment System. According to Source (stastista.com) a survey conducted in 2017 on different grounds. The following are the reasons of less confidence in Indian E-Payment System.
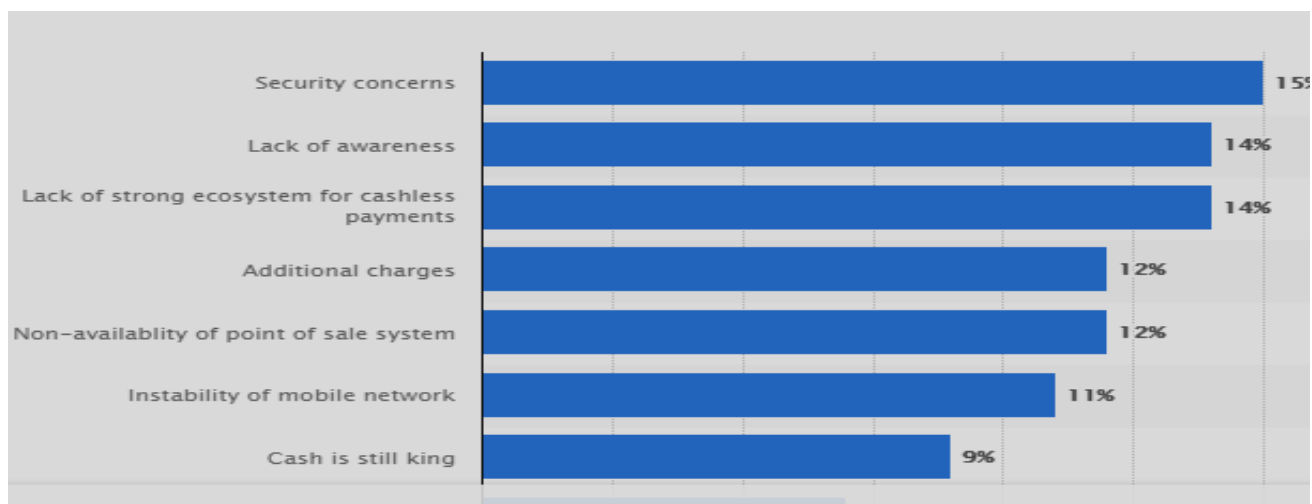
There is need for an analytical study of Challenges and Issues in E-Payment System so that they can be reduced or overweigh with the suggestions and solutions.

VII.   OBJECTIVES OF THE STUDY

➢ To find out the challenges of cash less transaction and to suggest the possible measures to overcome them.

➢ To identify the variables that influences the customer's adoption of electronic payment services.

➢ To assess the preparedness for the implementation of the cashless economy by Indian government.

VIII.   RESEARCH METHODOLOGY

Research Design: The study was descriptive-cum-exploratory in nature and based on online survey of Google form questionnaire with open-ended & close ended questions, checkboxes, 5 rating linear scale, Face to Face interview and telephone interview was conducted.

Population: Only those individual's are included in the survey that are well aware with the E-Payment System so that the challenges or issues faced by them could be known and proper suggestions to improve the Indian E-payment system could be taken.

Sample Design: Constituted Sample of the study was selected by snow ball sampling method in urban area of District kurukshetra, Haryana (India). Data was collected from 150 respondents from March 16, 2019 to 22 March, 2019.

Data Collection:

Secondary Data: Secondary data is collected from published material like books, pamphlets, articles, newspapers, journals, thesis and annual reports on E-Payment System.

Primary Data: The data collected through Google form structured questionnaire with 17 questions out of them 12 questions were important are

How often you use digital payments?

| What is your main purpose to use online transaction? |
| What is your preferred mode of payment for high value transaction? |
| How often do you change device passwords/PIN of debit/credit cards? |
| What is your biggest concern around digital payments? |
| Have you installed Malware or Anti-Virus protection on your phone or laptop? |
| Is any time you had a bad experience with online payments? |
| If yes when you reported the security breach what was the respond from concerned person? |
| How do people become victim of online transaction fraud? |
| What are the major challenges faced during Online Payments? |
| How would you rate the security of online transaction? |
| Please feel free to mention suggestions and recommendations |

IX.   RESULTS AND DISCUSSIONS

The questionnaire consisted of 17 questions out of which 13 multiple choice, 2 open ended questions 1 linear scale, 1 checkbox related questions were to meet the objective of the study. The sample unit of 150 respondents in the questionnaire included individuals having knowledge of E-Payment System, study revolves around the issues and challenges like security concerns ,lack of infrastructure, user's psychological factors, lack of awareness, charges on transactions, money deduction without any transaction, fraud/hacking and cyber criminals, network issue and delay in solving issues etc.

This paper has examined and analyzed the relationship between adoption of E-payment system and various direct issues related with Digital transactions on the basis of micro-level data from urban area of kurukshetra (INDIA). The assessment is carried out by general responses of questions by respondents and their recommendations.

X.   THEORETICAL ANALYSIS

From the survey following main findings came out:

➢ Out of 150 respondents 71.3% respondents were from 18-25 age groups, 22% were from 26-35, 6% were from 36-45 ,only 1 respondent was from above 45 .To conclude, it is inferred that the age is the main factor influencing the adoption of E-payment system and many suggestions was given regarding this to give trainings and increase awareness regarding online payments

AGE GROUP

- 18-25
- 26-35
- 36-45
- 45 Above
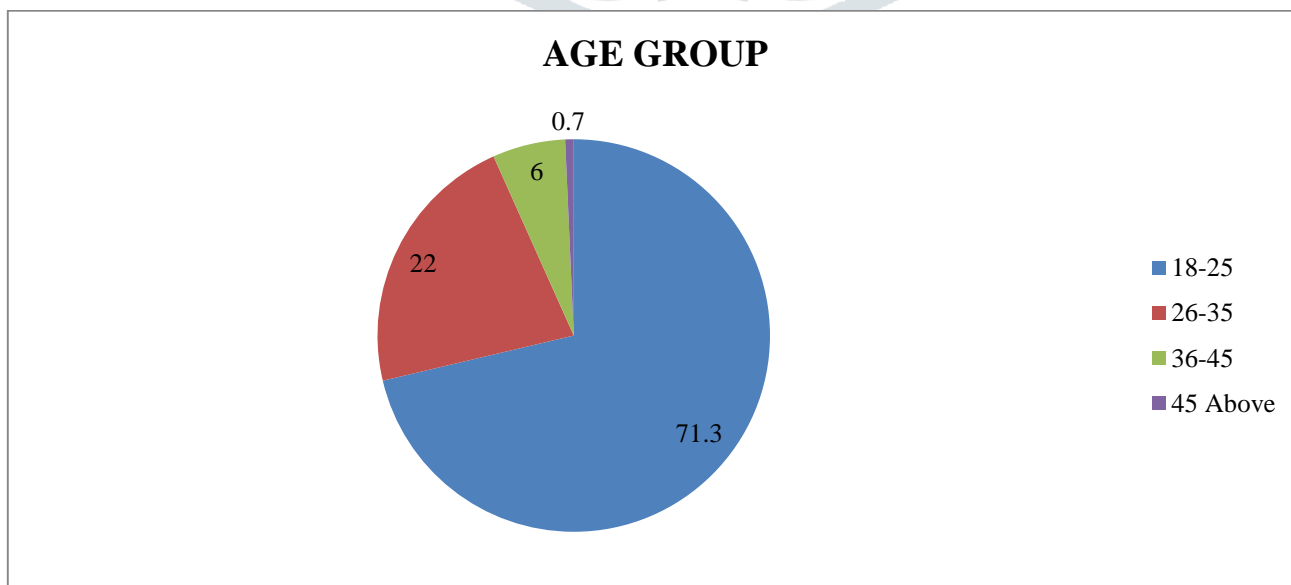
➢ Main purpose to use e-payment system of half of the respondents is to do online recharge whereas 18.7% portion of respondents does shopping and 10% small portion of banking by using maximum of credit/ debit cards(46.7%) & net banking(21.2%) respectively .So ,this shows the lack of trust in mobile apps/e-wallets with small chunk of 13.2%.

Main Purpose to use E-Payment System
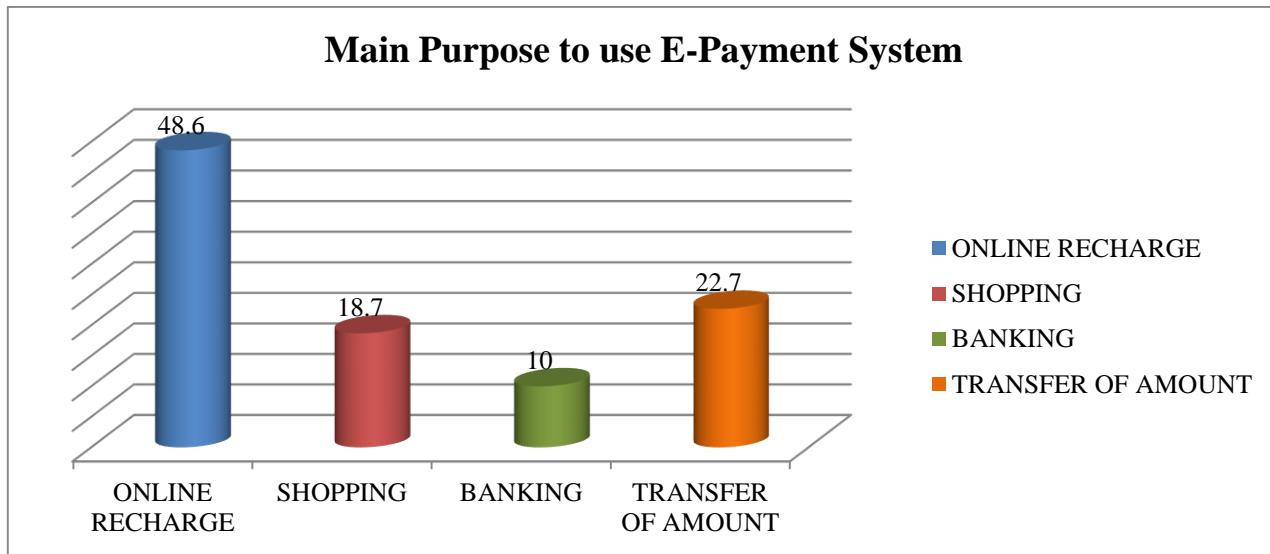
➢ Out of 150 respondents, approx 50% prefer the debit/credit cards in high value transaction but , still if the individual get the option of cash on delivery nearly one-fifth of sample go for that this shows the sovereignty of cash in the economy is still there.
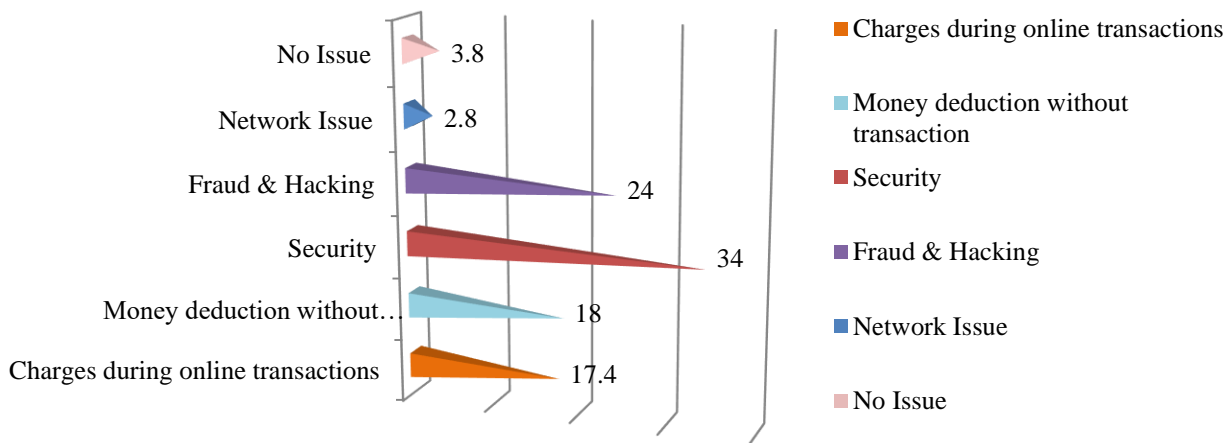
Preferred mode of payment for high value transactions
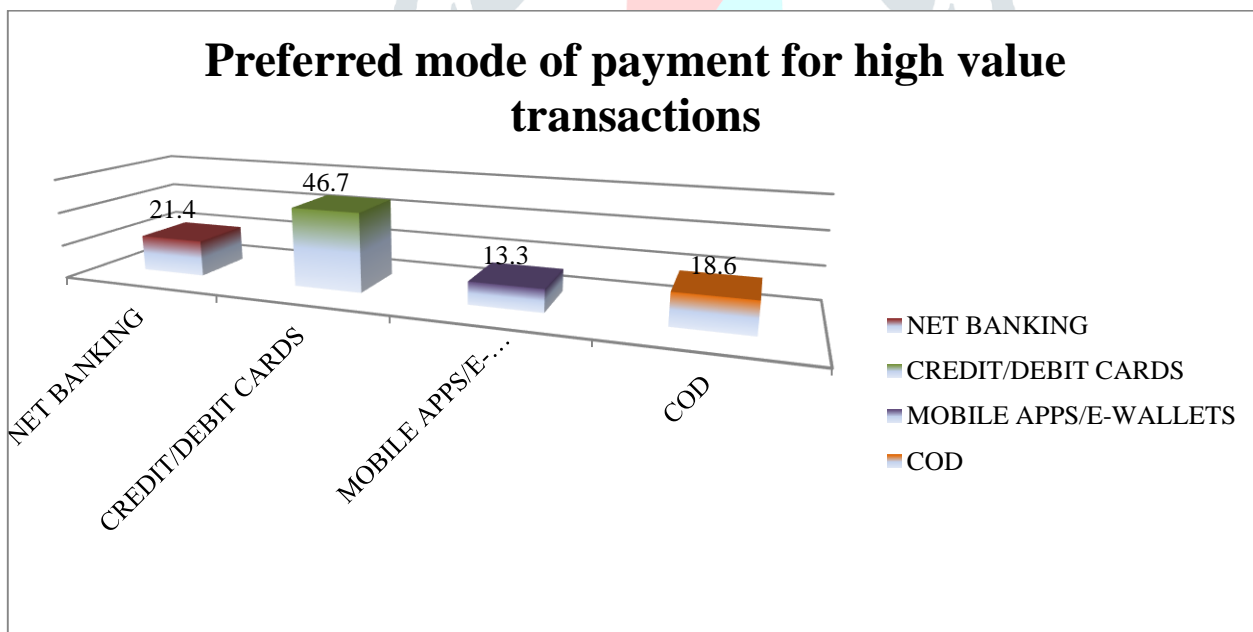
➢ More than 50 respondents never changed the device password /debit cards PIN. On the other hand, a quarter of person change the PIN of their debit cards/device passwords monthly which is very surprising as suggestions from the respondents were to change PIN regularly and not to share PIN with others as various techniques fraudsters use to steal your card information by SKIMMING,CARD TRAPPING,SHOULDER SURFING etc.

Changes in device passwords/PIN of Debit cards

- within month
- within 6 months
- within a year
- never changed
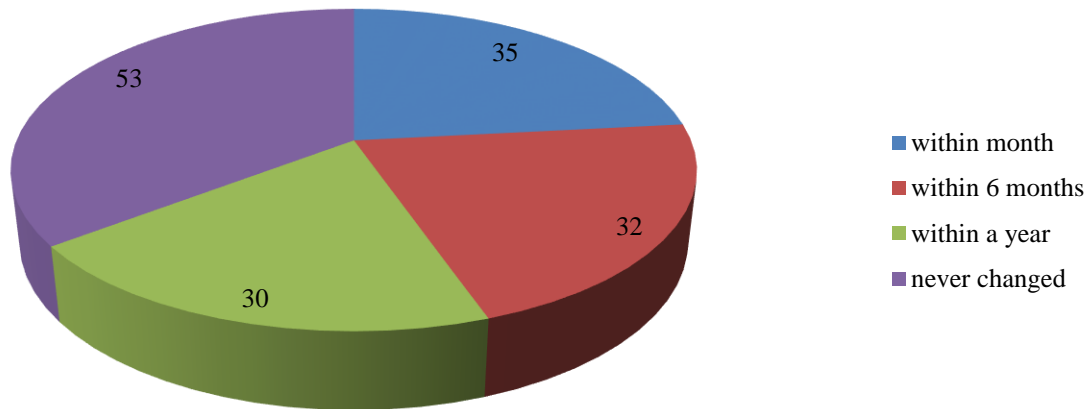
➤ Foremost challenge during E-Payment system is of security, fraud & hacking, money deduction without occurring of any transaction, charges on online payment and last one is network connection issue.

Biggest concern around E-Payment System

No Issue 3.8
Network Issue 2.8
Fraud & Hacking 24
Security 34
Money deduction without… 18
Charges during online transactions 17.4

- Charges during online transactions
- Money deduction without transaction
- Security
- Fraud & Hacking
- Network Issue
- No Issue

➤ The responses of respondents showed the lack of awareness to protect their data breach by hackers/cyber criminals as lion share of respondents do not install malware or antivirus on their devices.

Installation of malware or antivirus proection on laptop and phone
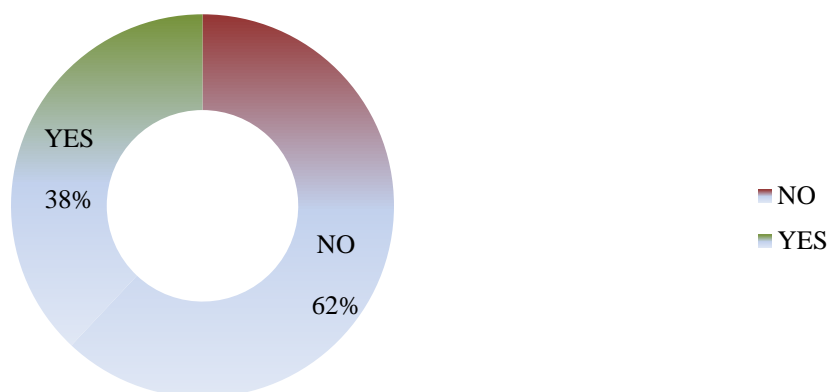
- Significant number (One-third) of respondents had bad experience with E-payment system and 23.3% respondents admitted that the concerned authority ignored their problem which is the main reason against adoption of digital means of payment system.
- As transformation is taking place in Indian digital means, a small minority of respondents 1 out of 6 respondents thinks that Indian E-payment system is full secure.
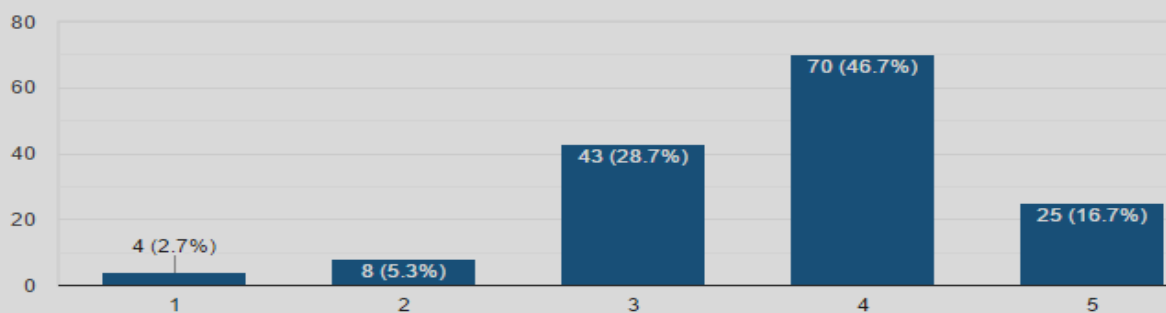
XI.   CHALLENGES AND ISSUES FOR INDIAN E-PAYMENT SYSTEM

- Data breach incidents in India have been higher compared to the global average, according to a survey conducted by defence grade technology maker Thales.

  "Around 52 per cent of Indian respondents reported a data breach last year, way above the global average of around 36 per cent. A full three quarters (75 per cent) of respondents in India reported data breach at some time in the past, compared with just 67 per cent globally," James Cook, sales director South Asia, Thales eSecurity told while sharing details of Thales Data Threat Report 2018.
  As per information reported to vond tracked by Indian Computer Emergency Response Team (CERT-In), a total of 22,207 Indian websites including 114 government websites were hacked during April 2017 to January 2018. A total number of 493 affected websites were used for malware propagation.

- Internet connectivity has become the main issue while doing online payments .India is ranked 67th for fixed broadband and 109th for mobile internet speeds in February; according to internet speed testing analysis firm Ookla. So there is need to

improve more to come under top 10 countries.

✻ Education plays pivotal role in every aspect of one's life so training and education is one of the required concept to improve online payment system In India, which is developing country is more reliant on 'Paper Based Economy'. The Cash in economy are available in voluminous amount that cannot be fully abandoned because of lack of awareness, training programs and illiteracy, where in rural areas only 58.75%(Census 2011) females are literate and overall approx three-quarters(Census 2011) are literate in a big country like India still contributing less than 5% of transactions being cashless .

✻ People still rely on physical payments as they think in India still need to take improved steps to improve the encryption of online e-payment transactions The demand for online convenience in India is linked to a heightened threat of fraud, as per the Experian's Digital Consumer Insights 2018 report.

1 in 4 customers is a victim of online fraud
24% directly experienced fraud while transacting online

✻ According to a global survey conducted by FIS (2017-2018), financial services technology firms, Indians are among the most frequent victims of online banking frauds. In fact, around 18% of Indians surveyed reported a fraud in the preceding year. This was a higher percentage than any other country's respondents. In comparison, only 8% of people from Germany reported a fraud followed by 6% in the UK.

A major portion of frauds affected Indians between the ages of 27 to 37 - the most regular users of online banking channels. Around 25% of the people in this age group reported a fraud.

✻ The 2018 GEAR, an Economist Intelligence Unit (EIU) global Index and benchmarking study commissioned by Visa, ranks governments by quantifying their e-payment capabilities based on various indicators. The EIU evaluates the extent to which major countries around the world have adopted e-payment systems, based on the digital platform and according to seven criteria — Citizen-to-Government (C2G), Government-to-Citizen (G2C), Business-to-Government (B2G), Government-to-Business (G2B) transactions, infrastructure, socio-economic and policy environments. Norway tops the GEAR list scoring 89.7 points in seven categories. Visa, the global leader in payments technology, today announced that India ranked 28th among 73 countries in the 2018 Government E-Payments Adoption Ranking (GEAR), up from 36th in 2011, reinforcing the country's progress towards digital transformation. To perorate, it can be deducted that still there is need to improve infrastructure for E-Payment System.

XII.   SUGGESTIONS AND SOLUTIONS TO IMPROVE INDIAN E-PAYMENT SYSTEM

1. A Responsible cyber citizen, requires to change passwords of their devices regularly or should use unique passwords/strong passwords for different devices.

2. Indian e-payment system would improve by adopting biometric solutions (e.g., fingerprint, facial recognition & iris scanning this could be used in transportation, shopping, and online transactions etc.

3. Users must protect their devices from unauthorized access by using anti-virus, malware and to engage with the verified social media pages/websites/links etc

4. For providing the additional security for customers, banks should focus on Multi-Factor Authentication (MFA) System.

5. Time for recovery of payment and quick solutions to customer's problem.

6. Psychological factors like trust and confidence must build in Indian E-Payment System through Awareness programs/ trainings and education.

7. Availability of PoS should be there.

8. Online transaction must be secure or encrypted by secure electronic transaction protocol, secure payment gateways, digital authorized signature and SSL (secure socket layer) and government should take important steps to block those website which are designed to steal personal banking data.

9. In country like India, for encouraging transparency in online payments certain offers, rewards and cash back may increase more participation by users instead of imposing charges on transactions.

XIII.   CONCLUSION

Demonetization has presented a unique platform for adoption of digital payment, as an alternative to cash for Indian users. Moreover, User's acceptance is a pivotal factor determining the success or failure of any information system project.

The successful implementation of electronic payment system depends upon the security, developed infrastructure, quick action against frauds, complete check on personal information of bank details, to provide set of awareness programs to upper age group and to communicate the benefits of e-payment system to whole economy; this would improve the trust of users and market confidence in Indian E-payment system.

XIV.   LIMITATION OF THE STUDY

The study is limited to the 150 respondents in diverse atmosphere of district kurukshetra (Haryana).A questionnaire of 17 question were used in the study, so that each area gets adequate coverage and representative sample can be drawn from the universe. Similar research at larger scale can be used further to remove issues and face challenges in Indian E-Payment System. In spite of the all limitations every single effort has been made to arrive at a fair results and conclusion by analyzing the collected data elegantly and tactfully.

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