

## Digital Payment System ---An Empirical Study

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### Abstract

Digital payment system across the world has gained greater acceptance in fact it has become a necessity in the new normal. This system also benefits the people to minimize carrying cash transactions to move towards a cashless economy by minimizing the use of physical cash. Pandemic has increased the adoption of digital payments drastically. Beyond this COVID-19 crisis, an increasing number of smart devices that support payment will drive the growth of digital payments. Major challenges that can hinder the implementation of the policy are cyber fraud, High illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The main objective of the study is to present the current status of usage of digital currency and the challenges of digital payment system are analyzed empirically.

**Keywords:** cashless economy, corruption, pandemic, growth, transparency & efficiency

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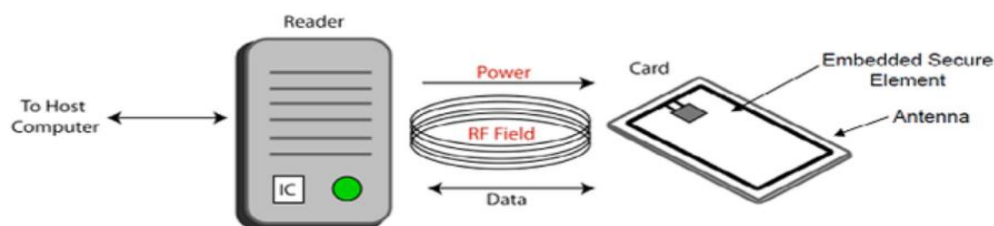
### I. Introduction



Source: Google

In the new normal with initial basics like digital access, merchant acceptance, and issuer interoperability firmly in place, the physical distancing limitations and non-essential business closures that escorted COVID-19 speed up a new era in payments, driven by the changing needs of people and businesses.

The advent of Information Communication technology (ICT) has brought a lot of developments. Its advantages are numerous and its advent has really revitalized various sectors of the economy and has promoted various professional and organizational developments through its ground-breaking characteristics. Ease in use of cashless transactions and incentive system are the positive symbols for the progress of cashless payments.



### **Digital shift key to economic recovery**

There's no doubt that COVID-19 is accelerating a digital-first payment ecosystem to transform based on our secure interoperable banking infrastructure, digital penetration, and market readiness to exemplify how a digital economic framework based on real-time, good funds can strengthen our economic recovery efforts, businesses can operate faster and more efficiently, consumers have seamless experiences when transacting with businesses large and small and micro businesses can grow because of easy access to ecommerce.

To an economy that is creating more value per capita. This is not an unexpected shift, and has been building the foundation for it ecommerce and money-movement solutions alongside contactless payment methods like. Digital payments are an integral means to economic recovery in nation and continue to support and businesses on this journey through the digital use of their own money.

## **II. Review of literature**

**Bappaditya Mukhopadhyay (2016)** has studied cash less payments in India. He developed a theoretical model of payment decisions made by consumers and sellers. He found that the convenience of cashless transactions weighed against the temptation to evade taxes

**Slozko & Pello, (2015)** mentioned in their study that the emergence of Information and Communication Technology (ICT) had completely changed the lives and operations of individuals and organizations respectively. ICT and Digital technologies had made great evolutionary development in finance, economics, operational costs

**Premchand & Choudhry, (2015)** observed in their study that the world payments system is gradually changing from coins and paper based money to electronic forms that provide more convenient, fast and secured process of making payments among individual and organizations

**Premchand & Choudhry (2015)** Similarly, the global annual non-cash transactions being facilitated by e-payment and mobile payment (m-payment) had been on the increase over the years, except for 2012 where it decelerates from an annual growth rate of 8.6% in 2011 down to 7.7% in 2012

**World Payment Report, (2014)** the world payments system is gradually changing from coins and paper based money to electronic forms that provide more convenient, fast and secured process of making payments among individual and organizations

**Oladeji (2014)** it has also become the major facilitating engine in e-commerce through which electronic business success relied upon. Electronic payment system had also brought about efficiency, fraud reduction and innovativeness in the world payment system.

**Fernandes (2013)** mentioned in their conclusions that the global proliferation of the internet and its rapid use over the years had contributed much in facilitating electronic commerce in global business environment

**Odi & Richard (2013)** specified that the introduction of e-payment system, the world payment system turned out to align with the current trend of cashless transactions among individuals, businesses and governments

### **Objectives of the study**

1. To study the concept of digital payment system
2. To study the consumer perception on digital payment system

## **III. Research Methodology**

The methodology used in any research work is very important as it provides foundation for research studies. In the first place, the research designs used in all the reviewed studies have something in common as most of the studies employed research design.

**Research Type:** Descriptive Research

**Data Source:** The present study is based on both primary and secondary source with regards to primary questionnaire has been developed and administered to respondents and secondary data basically the required information has been derived from various books, articles from news papers magazines, journals and from various related websites which deals directly or indirectly with the topic related to and thereby analyzed the objectives of the present study

**Sample size: 200**

**Sampling method:** Simple random method

**Sample area:** Hyderabad

**Limitations of the Study**

- Time is one of the limiting factors
- Only consumer perception, challenges and opportunities are analyzed and other parameters such as cyber threat, money laundering were not analyzed

**Benefits of Digital payment system**

- **Reduced Maintenance Costs:** The logistics and supply chain of cash is costing the exchequer a chance. The amount of money required in printing cash, its storage, transportation, distribution and detecting counterfeit currency is enormous.
- **Transparency in Transactions:** Needless to say, electronic transactions or plastic money always leaves a digital proof beneficial for both the taxpayer (consumer) and the tax collector (government).
- **Higher Revenue:** A derivative benefit of transparent transactions is collection of tax will increase. Therefore, generating higher revenue for the government, which in turn will be converted into public welfare policies and schemes
- **Financial Inclusion:** The will to have a cashless economy will promote financial inclusion of the people. It will compel the government to connect all the households with a bank and plastic economy.
- **Lower Transaction Costs:** Digital transaction is an advantage in terms of processing costs and waiting time. If implemented properly, it will increase the consumption and production rates, thereby improving the economy.

**Challenges of digital payment system**

- **Going virtual or digital must be an exponential curve,** slow initial buildup then fast paced in later stages, not a digital step signal. That could be counterintuitive to the whole process. India is a large country that needs a change that is systemic and systematic. Here is a list of challenges-
- **Lack of Digital Infrastructure:** The first and foremost requirement of a digital economy is the penetration of internet and Smart phone. Although a billion mobile subscriptions (not users), only 30% of subscribers use Smart phones. With 370 million mobile internet users, over 70% of them are in cities while 70% of Indian population lives in villages.
- **High Merchant Discount Rate:** These are the percentage deducted from each purchase a merchant makes by the card issuing authority or bank. These are volume dependent and are more economical if the merchant is able to sell a large amount of products, thereby beneficial for big merchants. For smaller merchants, it does not provide enough incentive to make the shift from cash.

**Data Analysis & Interpretation**

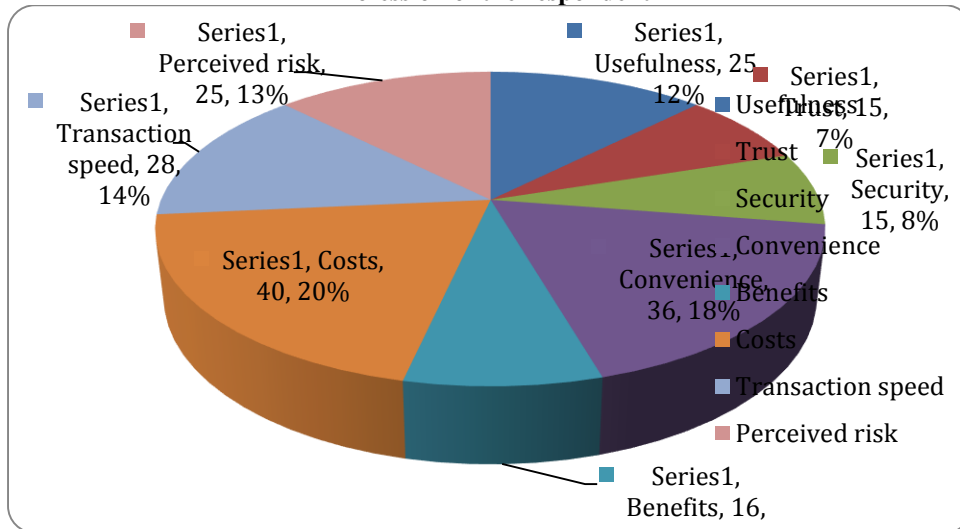
**Table  
Profession of the respondent**

	<b>Respondents</b>
Home Makers	<b>24</b>
Government employee	<b>28</b>
Private employee	<b>48</b>
Business	<b>52</b>

Student	25
Others	23
Total	200

Source: Primary data

Figure  
Profession of the respondent



Source: Primary data

**Interpretation:**

The table above pertaining to demographics (profession) it is depicted that out of 200 respondents 24 respondents are home makers, 28 respondents are government employees, 48 respondents are private employees, 52 respondents are businessmen, 25 respondents are students and remaining 23 respondents are from other category of professions.

Table  
Gender of the respondent

	Respondents
Male	122
Female	78
Total	200

Source: Primary data

**Interpretation:**

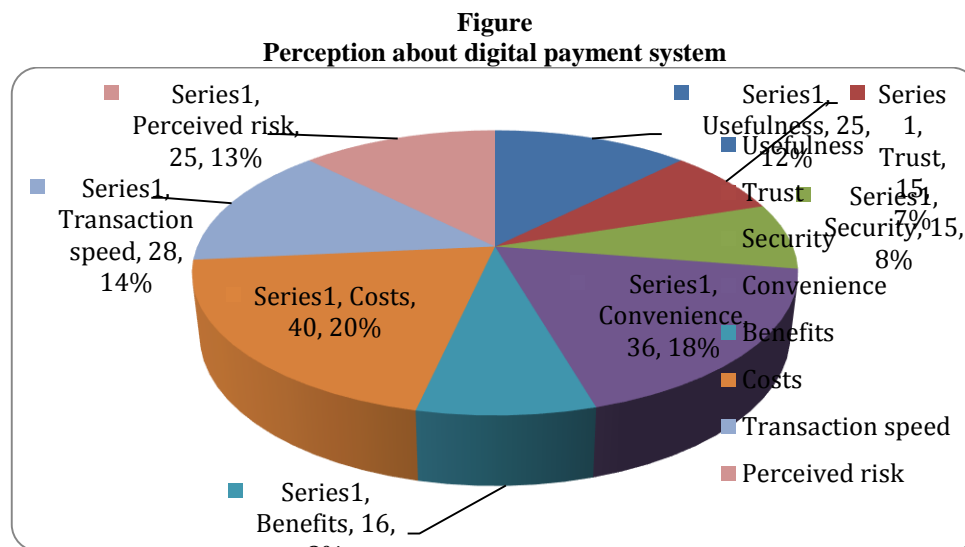
The figure above pertaining to demographics (Gender) it is depicted that out of 200 respondents 122 respondents are male gender and 78 female respondents

Table  
Perception towards cashless/digital payment system

	SA	A	N	DA	SDA	total
Usefulness	3	18	2	2	0	25
Trust	2	8	3	2	0	15
Security	2	5	3	2	2	15
Convenience	6	25	3	2	0	36
Benefits	4	10	2	0	0	16
Costs	4	19	11	6	0	40

Transaction speed	8	15	2	3	0	<b>28</b>
Perceived risk	5	6	5	5	4	<b>25</b>
total						<b>200</b>

Source: Primary data



Source: Primary data

**Interpretation:**

It is observed from the survey data pertaining to perception towards digital payment system out of 200 respondents surveyed. Out of 25 respondents perceived as **usefulness**: 3 respondents mentioned as strongly agree, 18 respondents mentioned agree, 2 respondents mentioned neutral, 2 respondents mentioned disagree. With regards to perception 15 respondents said **trust**: 2 respondents mentioned as strongly agree, 8 respondents mentioned as agree, 3 respondents mentioned as neutral and 2 respondents mentioned as disagree. :with regards to digital payment system the perception of respondents is **security(15)**: 2 respondents mentioned as strongly agree, 5 respondents mentioned as agree, 3 respondents mentioned as neutral and 2 respondents mentioned as disagree and 2 respondents mentioned as strongly disagree : :with regards to digital payment system the perception of respondents is **convenience total (36)** 6 respondents mentioned as strongly agree, 25 respondents mentioned as agree, 3 respondents mentioned as neutral and 2 respondents mentioned as disagree pertaining to perception the factor **16** respondents chosen as **benefits** out of which 4 respondents mentioned as strongly agree,10 respondents mentioned as agree, 2 respondents mentioned as neutral, pertaining to the **cost** as one of the factor, 40 respondents perceived as good for digital payment system out of which 4 respondents mentioned as strongly agree, 19 respondents mentioned as agree, 11 respondents mentioned as neutral and 6 respondents mentioned as disagree. : with regard to the **factor transaction speed (28)** respondents perceived as essential out of which 2 respondents mentioned as strongly agree, 15 respondents mentioned as agree, 2 respondents mentioned as neutral and 3 respondents mentioned as disagree. With regard to the perception of respondents towards digital payment system or cashless system 25 respondents mentioned as **perceived risk**, out of which :5 respondents mentioned as strongly agree, 6 respondents mentioned as agree, 5 respondents mentioned as neutral and 5 respondents mentioned as disagree and remaining respondents mentioned as strongly disagree. This indicates that majority perceived as cost benefit, followed by convenience, transaction speed, perceived risk, and usefulness, trust and so on. This also specifies that people perceive positively towards cashless system.

**Table: Anova: Two-Factor Without Replication**

SUMMARY	Count	Sum	Average	Variance
Usefulness	5	25	5	54
Trust	5	15	3	9
Security	5	14	2.8	1.7

Convenience	5	36	7.2	103.7
Benefits	5	16	3.2	17.2
Costs	5	40	8	53.5
Transaction speed	5	28	5.6	36.3
Perceived risk	5	25	5	0.5
SA	8	34	4.25	4.214286
A	8	106	13.25	50.78571
N/N	8	31	3.875	9.267857
DA	8	22	2.75	3.642857
SDA	8	6	0.75	2.214286

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	131.375	7	18.76786	1.461752	0.221254	2.35926
Columns	744.1	4	186.025	14.48873	1.58E-06	2.714076
Error	359.5	28	12.83929			
Total	1234.975	39				

The ANOVA Two-way to find whether there is any significant impact of digital payment system perception  
 $\alpha = 0.05$  **Reject H<sub>0</sub>**

Between Rows:

F calculated value = 1.461752 at (Degree of Freedom 8, 48)

Table Value: 2.35926

Since F cal value is < than F table value

**Accept H<sub>0</sub>**

Between Columns:

F calculated value=14.48873 at (Degree of Freedom 6, 48)

Table Value 2.714076

Since F cal Value > Table Value

**Reject H<sub>0</sub>**

Hence it is found that there is a significant impact of digital payment system and the perception of the respondents

#### IV. Conclusions

- Findings of the data conclude that most of the respondents belong to business group followed by professionals and employees.

Majority of respondents are businessmen and private employees, it is indicated that the other professional have to be empowered to opt for digital payment or cash less mode of payment.

- Majority of the respondents are male gender, there is scope to create awareness and train the women respondents to opt for digital payment system.

- It is also concluded that majority perceived as cost benefit, followed by convenience, transaction speed, perceived risk, and usefulness, trust and so on. This also specifies that people perceive positively towards cashless system.

- If we want people-centered, inclusive and development-oriented information societies, where all have access to digital technologies, where everyone can create, access, utilize and share information of their choice, legal frameworks need to be put in place to protect security and privacy in the digital age and to avoid potential large-scale intrusions and minimize abuses.
- The results indicate that there is a significant impact of digital payment system on perception of respondents as such the null hypothesis has been rejected.

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