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Jimmy Jose
Research Scholar at Department
of Business Studies, Joseph
School of Business Studies &
Commerce, Sam Higginbottom
University of Agriculture,
Technology & Sciences
Prayagraj, Uttar Pradesh, India

Dr. Sebastian Tharapil Joseph
Assistant Professor (Sr.),
Department of Business Studies,
Joseph School of Business
Studies, Sam Higginbottom
University of Agriculture,
Technology & Sciences,
Prayagraj, Uttar Pradesh, India

Corresponding Author
Jimmy Jose
Research Scholar at Department
of Business Studies, Joseph
School of Business Studies &
Commerce, Sam Higginbottom
University of Agriculture,
Technology & Sciences
Prayagraj, Uttar Pradesh, India

Effects of digital payment system and its impact on saving of individual with special reference to Kaushambi during Covid -19

Jimmy Jose and Dr. Sebastian Tharapil Joseph

Abstract

In the past few years, economic transactions are carried out through electronic or online or cashless means all over in India. As a result of increased digital means of payment has brought down usage of cash transactions in the economy. Digital transactions have the features of speed, less cost, and comfort. A well functioning digital payment system has much relevance on overall economic activity, monetary policy, and financial stability of a country. In the present pandemic situations when it is beneficial for everyone to avoid the physical contact, mingling with others and visiting physical brick and mortar platform of stores, shopping malls. The application of digital payment system has increased a lot and its importance has been increases by leaps and bounds too.

This study tries to verify the effects of digital payment system and its impact on saving of individual and to know the point of view of people of using a digital payment system and its impact on their money saving.

The study is conducted by selecting 200 samples on the basis of gender, age, occupation, qualification, annual income, to know about digital payment, using of digital payment app, benefits & purpose of using digital payment app, time saving and impact on money saving during Covid- 19.

Keywords: digital payment apps, savings, Covid-19

Introduction

The first outbreak of virus in China which devastated the countries globally had affected people from all walks of life, no one had been spared may be a masons, architects, lawyers, politicians even medical field professionals. In one of the question raised by Traders' body Confederation of All India Traders (CAIT) regarding the possibilities of currency notes carrying virus of Covid 19 RBI has responded that there are possibilities of currency notes carrying virus when in circulation among common people (Financial Express, 2020) [3].

Digital payments are payments that are conducted over the internet and mobile channels. It is also called electronic payment. Digital payment is very convenient compared to traditional payment methods such as cash or check. Since you can pay for goods or services online at any time of day or night, from any part of the world, your customers don't have to spend time in a line, waiting for their turn to transact. Nor do they have to wait for a check to clear the bank so they can access the funds they need to shop. Digital payment also eliminates the security risks that come with handling cash money.

Types of Digital Payment Methods in India

- **Banking cards:** Cards are among the most widely used payment methods and come with various features and benefits such as security of payments, convenience, etc. The main advantage of debit/credit or prepaid banking cards is that they can be used to make other types of digital payments. For example, customers can store card information in digital payment apps or mobile wallets to make a cashless payment. Some of the most reputed and well-known card payment systems are Visa, Rupay and MasterCard, among others. Banking cards can be used for online purchases, in digital payment apps, POS machines, online transactions, etc.
- **USSD:** Another type of digital payment method, *99#, can be used to carry out mobile transactions without downloading any app. These types of payments can also be made with no mobile data facility. This facility is backed by the USSD along with the National Payments Corporation of India (NPCI). The main aim of this type of digital payment service is to create an environment of inclusion among the underserved sections of society

and integrate them into mainstream banking. This service can be used to initiate fund transfers, get a look at bank statements and make balance queries. Another advantage of this type of payment system is that it is also available in Hindi.

- **AEPS:** Expanded as Aadhaar Enabled Payment System, AEPS, can be used for all banking transactions such as balance enquiry, cash withdrawal, cash deposit, payment transactions, Aadhaar to Aadhaar fund transfers, etc. All transactions are carried out through a banking correspondent based on Aadhaar verification. There is no need to physically visit a branch, provide debit or credit cards, or even make a signature on a document. This service can only be availed if your Aadhaar number is registered with the bank where you hold an account. This is another initiative taken by the NPCI to promote digital payments in the country.
- **UPI:** UPI is a type of interoperable payment system through which any customer holding any bank account can send and receive money through a UPI-based app. The service allows a user to link more than one bank account on a UPI app on their smart phone to seamlessly initiate fund transfers and make collect requests on a 24/7 basis and on all 365 days a year. The main advantage of UPI is that it enables users to transfer money without a bank account or IFSC code
- **Mobile Wallets:** A mobile wallet is a type of virtual wallet service that can be used by downloading an app. The digital or wallet stores bank account or debit/credit card information or bank account information in an encoded format to allow secure payments. One can also add money to a mobile wallet and use the same to make payments and purchase goods and services. This eliminated the need to use credit/debit cards or remember the CVV or 4-digit pin. Many banks in the country have launched e-wallet services and apart from banks, there are also many private players. Some of the mobile wallet apps in the market are Paytm, Mobikwik, Freecharge, etc. The various services offered by mobile wallets include sending and receiving money, making payments to merchants, online purchases, etc. Some mobile wallets may charge a certain transaction fee for the services offered.
- **Bank pre-paid cards:** A prepaid card is a type of payment instrument on to which you load money to make purchases. The type of card may not be linked to the bank account of the customer. However, a debit card issued by the bank is linked with the bank account of the customer.
- **POS terminals:** Traditionally, POS terminals referred to those that were installed at all stores where purchases were made by customers using credit/debit cards. It is usually a hand held device that reads banking cards. However, with digitization the scope of POS is expanding and this service is also available on mobile platforms and through internet browsers. There are different types of POS terminals such as Physical POS, Mobile POS and Virtual POS. Physical POS terminals are the ones that are kept at shops and stores. On the other hand, mobile POS terminals work through a tablet or smart phone. This is advantageous for small time business owners as they do not have to invest in expensive electronic registers. Virtual POS systems use web-based applications to process payments.
- **Internet Banking:** Internet banking refers to the process

of carrying out banking transactions online. These may include many services such as transferring funds, opening a new fixed or recurring deposit, closing an account, etc. Internet banking is also referred to as e-banking or virtual banking. Internet banking is usually used to make online fund transfers via NEFT, RTGS or IMPS. Banks offer customers all types of banking services through their website and a customer can log into his/her account by using a username and password. Unlike visiting a physical bank, there are no time restrictions for internet banking services and they can be availed at any time and on all 365 days in a year. There is a wide scope for internet banking services.

- **Mobile Banking:** Mobile banking is referred to the process of carrying out financial transactions/banking transactions through a smart phone. The scope of mobile banking is only expanding with the introduction of many mobile wallets, digital payment apps and other services like the UPI. Many banks have their own apps and customers can download the same to carry out banking transactions at the click of a button. Mobile banking is a wide term used for the extensive range or umbrella of services that can be availed under this.
- **Bharat Interface for Money (BHIM) app:** The BHIM app allows users to make payments using the UPI application. This also works in collaboration with UPI and transactions can be carried out using a VPA. One can link his/her bank account with the BHIM interface easily. It is also possible to link multiple bank accounts. The BHIM app can be used by anyone who has a mobile number, debit card and a valid bank account. Money can be sent to different bank accounts, virtual addresses or to an Aadhaar number. There are also many banks that have collaborated with the NPCI and BHIM to allow customers to use this interface.

History of digital payment in world

The origin of digital payment is associated with the beginning of the internet, which changed the world as nothing before. If there was no internet, there wouldn't be e- services & online stores. Along with the development of the internet, online payments began to operate in the 1990s. Established in 1994, Stanford Federal Credit Union was the first institution to offer online banking services to all its customers. Initially online payment systems were not user-friendly and needed specialized knowledge of data transfer protocol.

In the beginning, the major players in the digital payment market were Millicent & Ecash founded in 1995 & 1996 respectively. Most of the first online services used micro payment systems and their shared characteristic was the attempt to have electronic cash alternatives (like e-money, tokens or digital cash). Moreover, the Amazon (one of the e-commerce pioneers) was founded in 1994.

IN 1998, PayPal began as mobile payment firm with wireless transactions on Palm Pilots. However it later focused on online payment when it established a strong customers base on eBay, a company that had a powerful auction platform, PayPal continued to create innovation one after another like sending payments using email addresses, launching the reverse turning test to reduce fraud and making HTML payment buttons.

Digital wallets have been around for some time but have gained more traction with the millennial generation. Stored online or on smart phones, they are linked to bank accounts or

payment cards and used to make purchases online or in physical shops using contactless technology. The launch of Apple Pay in September 2014 was a significant moment as it improved wallet functionality by enabling payment cards to be added via a photo of the card and authenticating payments via the iPhone fingerprint scanner. Credit card providers now pay the company a fee for each transaction on the platform.

History of digital payment in India

On November 22, 2010, National Payments Corporation of India (NPCI) launched Immediate Payment Services (IMPS) to offer an instant, 24-hour×7, interbank electronic fund transfer service through mobile phones. IMPS facilitate customers to use mobile instruments as a channel for accessing their bank accounts and put high interbank fund transfers in a secured manner with immediate confirmation features.

With over 900 million mobile subscriber and robust payment infrastructure, IMPS is well positioned to fulfill its objectives of enabling bank customers to use mobile instruments as a preferred channel for accessing their banks accounts, remit funds and also sub-serve the goal of digitalization of retail payments. The basic aim of IMPS is to also enable micropayments on low- end mobile devices which support only voice and text, in addition to higher-end phones which could support web browsing or Java application capabilities. A person who has subscribed to a mobile payment service should be able to send money to any other person who has subscribed as well. This should be independent of the mobile network and the bank to which either of the persons belong. This is referred to as interoperability and is a key concern for any major technology to be successful.

In India, the model for the delivery of IMPS will be bank-linked; which implies that customers wishing to avail themselves of this service should have:

- Initially, a registered mobile phone account with any network operator in the country, and
- A bank account
- Register for the mobile payment service with the bank

Benefits of digital payments during Covid times

The role of digital payment has emerged a lot especially during the Covid outbreak when citizens were advised to stay home and lockdown was imposed throughout the world (Gopinath, 2020). The digital payment had saved households from travelling expenses, impulse buying, long queue hours in shopping malls, pollution etc, all this together has converted into savings.

Saving is the portion of income not spent on current expenditure. Saving helps an individual or family become financially secure. Savings also involves reducing expenditures, such as recurring costs. Saving is closely related to physical investment, in that the former provides a source of funds for the latter. By not using income to buy consumer goods and services, it is possible for resources to instead be invested by being used to produce fixed capital, such as factories and machinery. Saving can therefore be vital to increase the amount of fixed capital available, which contributes to economic growth.

In economics, saving is defined as post-tax income minus consumption. The fraction of income saved is called the average propensity to save, while the fraction of an increment to income that is saved is called the marginal propensity to save. The rate of saving is directly affected by the general

level of interest rates. The capital markets equilibrate the sum of (personal) saving, government surpluses, and net exports to physical investment.

Objective of the study

To study the benefits and the purpose of using digital payment app during Covid times. To study the effects of the digital payment system on user's personal time Covid times.

To study the digital payment system affects the money saving of the individual Covid times.

Review of Literature

(Lunt & Livingstone, 1991) ^[11] studied wide range of variable such as demographic, economic, and psychological variables to distinguish between savers and non-savers and to predict recurrent saving and total savings. Two hundred and seventy-nine people completed in-depth surveys of their economic conditions, their social background and a variety of psychological predictors. Discriminant function analysis was applied to find out between savers and non-savers. A variety of psychological factors discriminated those who save regularly from those who do not. (Khiaonarong, 2000) ^[9] examined the creation of modern Electronic Payment System in Thailand and concluded that this creation has helped to facilitated the turnover of fund in the economy. (Kiiski *et al.*, 2002) ^[10] in a study conducted on Finnish market sector revealed that the use of E- payments and E-filing led to significant rise in the output of the market sector in Finland. (Abrazhevich, 2004) ^[11] characterizes the system of online or electronic payment as a type of financial commitment that includes the purchaser and the vendor enabled by the utilization of electronic infrastructures.

(Choudhary, 2005) ^[2] found the saving behavior of urban and rural households in India using time series data from the time period 1950 – 1962. He concluded that income and population were found to have positive influence on savings in rural, urban and overall all the regions of India. Marginal propensity to consume was 0.5373 in urban and 0.0156 in rural India.

(Hamidinava, 2010) ^[6] tried to evaluate the specifications of Electronic Payment System in the view of Iranian bank user. All the specifications are classified into four sub-structures such as technical, legal, security and socio-economic. Finally at the end of the study it was revealed that socio- economic index has major influence on adoption of E-payment services in Iran.

(Roy & Sinha, 2014) ^[13] studied that E- payment system in India, has shown tremendous growth, but still there has lot to be done to increase 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 strengthen the E- payment system.

(Praveen & Hebbar, 2020) ^[12] studied the impact of Covid -19 on digital payment system, their study was focused on female at Mangalore, and the study resulted into a finding where respondents accepted that they will continue using digital payment system even after the pandemic is over. (Kaur & Walia, 2021) ^[8] opined that COVID-19 had significant impact on use of digital payments. And people are facing issues of low rate of financial inclusion, issues with network congestion and internet connectivity, and cultural preference for cash are preventing people from moving over to digital payment platform.

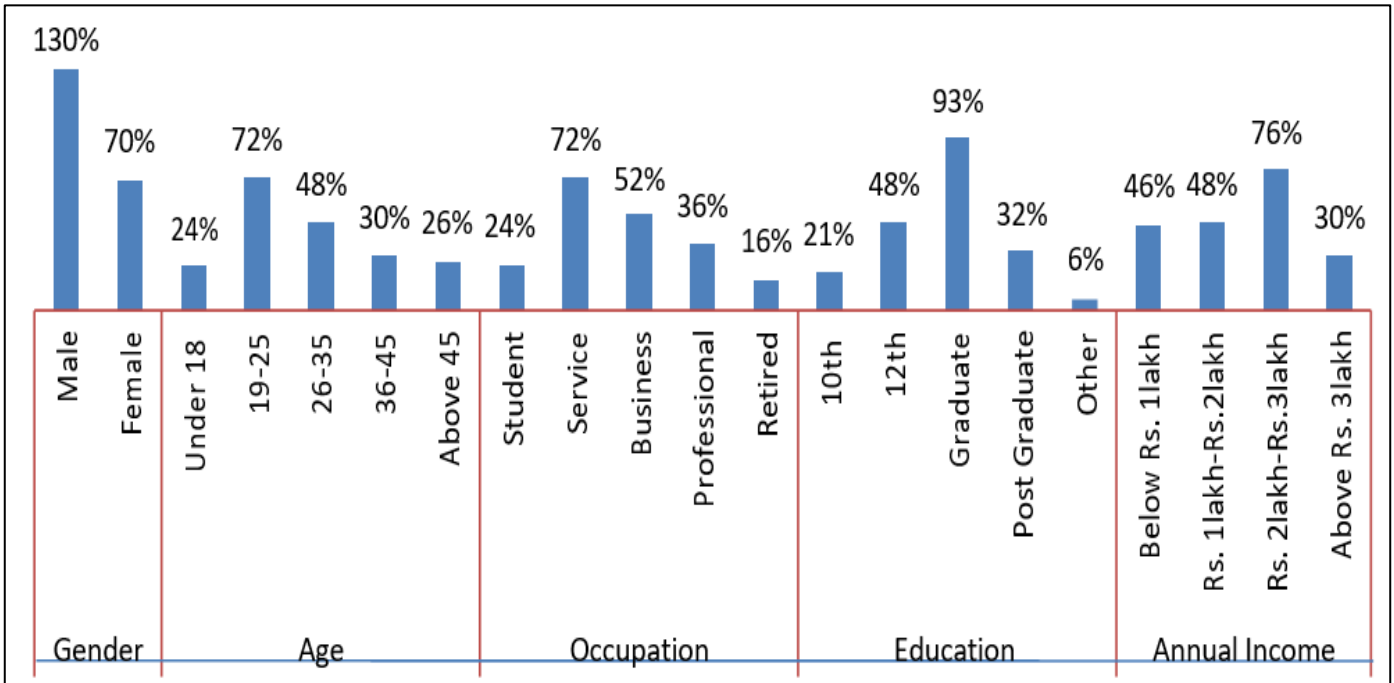
Method

Participant and Procedure This study is carried out to estimate the effects of digital payment system and its impact on savings of households in Kaushambi near the holy city Prayagraj. The researcher has applied descriptive research in the study. The total sample size of 200 was taken for the survey. The respondents were chosen on simple random sample method and data was collected with the help of questionnaire.

Measures

The response from the respondents were collected with an unstructured questionnaire, the questionnaire was divided into two parts, Part A focused on the demographic profile and Part B was focused on the awareness of digital payment system among the respondent and whether they are getting any benefits from this system.

Results & Discussions



Source: Field study

Fig 1: Demographic Profiles

The above Figure 1 depicts the demographic profile of the respondents, out of the 200 respondents 130% were male and 70% were female, Kaushambi is a sub-urban area where 72% respondents were employed in jobs and 52% were engaged in family business, the educational background was depicted 93% respondents were graduate and the annual income of 76% respondents ranged between Rs.2-3lakhs only.

Table 1: Availability of bank account

1. Do you have a bank account?	Frequency	%
a) Yes	190	95
b) No's	10	5
Total	200	100

It is evident from Table 1 that out of total respondents 95% were having a bank account and 5% were yet to open bank account in Kaushambi.

Table 2: Awareness towards digital payment

2. Do you know about digital payment?	Frequency	%
a) Yes	148	74
b) No	52	26
Total	200	100

The above table 2 depicts that 74% of the respondents were educated toward the new method of payment system i.e digital payment.

Table 3: Usage of digital payment app prior Covid-19

3. Have you ever used digital payment app prior to Covid-19?	Frequency	%
a) Yes	80	40
b) No	120	120
Total	200	100

The above table 3 depicts that only 40% of the respondents were using these apps prior to outbreak of COVID-19, and majority i.e. 120% were reluctant towards these apps.

Table 4: Usage of digital payment app due to Covid-19 risks

4. Did you started using digital payment apps due to Covid-19 risks?	Frequency	%
a) Yes	144	72
b) No	56	28
Total	200	100

The above table 4 depicts that 72% of the respondents were open towards the new method of payment and had already applied an app for making payments to avoid Covid-19 risks.

Table 5: Type of App used

3(i) if yes, then which app you have used.	Frequency	%
a) Google Pay	62	31
b) Paytm	46	23
c) PhonePe	32	16
d) BHIM app	4	2
e) Other	0	0
Total	144	72

The above table 5 shows that out of 144 respondents who were using digital payments app, 31% of the respondents using Google Pay and only 2% were using BHIM app which was astonishing.

Table 6: Agreement towards benefits of digital payment app

4. Do you have any benefits of using digital payment app?	Frequency	%
a) Yes	144	72
b) No		
Total	144	72

The above table 6 exhibits that 72% of the respondents has agreed that they had experienced the benefits of digital payment apps.

Table 7: Types of benefits from usage of digital payments app

4(i) if yes, then which type of benefits you have.	Frequency	%
a) Ease of use	82	41
b) Better than cash	44	22
c) Security	12	6
d) All of the above	6	3
Total	144	72

The above table 7 shows that out of 144 respondents who were using digital payments app, 41% of the respondents have enjoyed benefit of ease of use, 22% responded that digital payments are better than cash.

Table 8: Purpose for using digital payment app

5. Do you have any purpose of using digital payment app?	Frequency	%
a) Yes	144	72
b) No		
Total	144	72

The above table 8 exhibits that 72% of the respondents has agreed that they had utilized digital payments app for specific purpose.

Table 9: Types of purpose digital payment apps served

5(i). If yes, then what are the purposes of using digital payment app?	Frequency	%
a) Mobile Recharge	68	34
b) Money Transfer	14	7
c) Utility & bill payment	36	18
d) All of the above	26	13
Total	144	72

The above table 9 shows that out of 144 respondents who were using digital payments app, 34% respondent has utilized it for mobile recharge and 18% have used it for utility and bill payment.

Table 10: Time saving by use of digital payment apps

6. Do you feel that uses of digital payment app save your time?	Frequency	%
a) Yes	144	72
b) No	0	0
Total	144	72

The above table 10 exhibits that 72% of the respondents has agreed that they use of digital payments app has saved their time a lot, which was earlier wasted in actual physical payments.

Table 11: Impact on money saving

7. Do you have any impact of digital payment app on your money saving?	Frequency	%
a) Yes	112	56
b) No	32	16
Total	144	72

The above table 11 exhibits that 56% of the respondents has agreed that the use of digital payments app has caused a positive effect on their money saving plan, due to eradication of cost of travelling charges till the place of actual payment.

Table 12: Methods of saving money

7(i) if yes, then how it saves your money by using digital payment app?	Frequency	%
a) Points	28	14
b) Money back/cash back	56	28
c) Discount	46	23
d) Other	14	7
Total	144	72

The above table 12 shows that out of 144 respondents who were using digital payments app, 28% respondent has experienced that their money has been saved in form of cash back and 23% have received discount while using digital payment apps.

Conclusion

Due to the risks caused by this pandemic digital payments system will be persistent in different economies and speed of digitalization will increase in those countries which were earlier underdeveloped. The political leaders and financial system of such countries will promote digitalization for restricting its citizens. Therefore the change is inevitable and people has to bring it into the habit of using these apps. The cashless transition is not only safer than the cash transaction but is less time consuming and also help in money saving. It also helps in record of the all the transaction done. A majority of respondents (72%) are using digital payment app and 74% respondents were know to digital payment app. This number is going to increase further to reducing the fear of security. If digital payment app provides more security to their user relate with transaction then its increase the user.

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