Literature Review on Adoption of Digital Payment System

– Shailza*

Research Scholar, School of Management Studies (SOMS), Indira Gandhi National Open University (IGNOU), New Delhi, India

Shailza509@gmail.com

– Madhulika P. Sarkar

Assistant Professor, School of Management Studies (SOMS), Indira Gandhi National Open University (IGNOU), New Delhi, India

EDiTOrIAl BoARD ExcERPt
Initially at the Time of Submission (ToS) paper had a 14% plagiarism, which is an accepted percentage for publication. The editorial board is of an observation that paper had a successive close watch by the blind reviewer’s which at the later stages had been rectified and amended by the authors (Shailza & Madhulika) in various phases as and when required to do so. The comments related to this manuscript related to Adoption of Digital Payment System are noticeable both subject-wise and research wise. Digital Payment are rapidly growing in India, as such research in the field is much needed and the authors have done a commendable job by streamlining the researches done in the Digital payments. Being a review paper, it is completely based on secondary data and encompasses both empirical as well as conceptual studies related to adoption of Digital payment system. It is well structured and has a strong flow providing the reader complete understanding of the purpose in line with the findings of the study. By and large all the editorial and reviewer’s comments had been incorporated in paper at the end and further the manuscript had been earmarked and decided under “Review of Literature” as it presents the review of different past studies on the Digital payments.

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ABSTRACT

Purpose: The purpose of the study is to review the existing literature on digital payment system. The study attempts to access the progress made in terms of adoption of Digital Payment System. And also discusses the factors which impact the attitude of consumers for the adoption of digital payment system.

Design/Methodology/Approach: The paper reviews the literature on Digital payment system. Both conceptual and empirical studies have been reviewed.

Findings: Digitization of the economy has become extremely important and unavoidable to keep pace with the fast-growing cashless global economy. In accordance with the other developed and developing nations, India is also trying to shift its preference of payments from cash driven to cashless economy. In digital payments system, consumers pay using instruments other than cash such as Debit/Credit cards, Digital wallets, Net banking, and Mobile payment Applications etc.

KEYWORDS Digital Payment System | Demonetization | UPI | Mobile Payments

*Corresponding Author (Shailza - Et. Al.)

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**Introduction**

Digital payment has created buzz, especially after demonetization. It has achieved increasing significance in recent years. The government and private sector both are realizing its growing importance and making full utilization of the opportunity. The emergence of new technology and need for a global business made the digital payments more popular.

The Payment and Settlement Act, 2007 has defined Digital Payments as any transfer of money or funds which is made by any individual through instruction, approval or order to a bank for debiting or crediting an account maintained with that bank with using electronic ways and includes Debit and credit card payments; Automated Teller Machine (ATM) transactions, Point of Sale (PoS) transfers or micro ATMs, direct deposits or withdrawal of money, Mobile Payments, Net Banking etc.

There are various methods of digital payments that are emerging. The most popular are:

<table>
<thead>
<tr>
<th>Digital Payments</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEFT/RTGS</td>
<td>RTGS is an electronic payment system that allows one person or an individual to transfer amount between two banks. And NEFT allows individuals as well as firms and companies to transfer funds from one bank account to another bank account. There is no mandate of minimum amount transfer in NEFT but for RTGS minimum amount is 2lacs.</td>
</tr>
<tr>
<td>Debit and Credit Cards</td>
<td>A debit card is a plastic card that is issued to an account holder by banks designed for electronic access to her/his bank account. Through card one can withdraw money and make purchases using money in the bank account. Bank gives the credit card to its account holder on the basis of a line of credit. And overdraft facility is provided to credit cardholders.</td>
</tr>
<tr>
<td>UPI (Unified Payment Interface)</td>
<td>UPI is a versatile installment framework which facilitates you to do different monetary exchanges on your cell phone. UPI enables you to send or get cash utilizing virtual installment address without entering bank data.</td>
</tr>
<tr>
<td>AEPS (Aadhar Enabled Payment System)</td>
<td>AEPS is one of the best digital payment strategies. Through AEPS one can carry out various financial transactions such as transferring money, withdrawing money, depositing cash, making enquiry about bank balance, etc on a micro ATM or Point of Sale(PoS) just by using his Aadhar number which is verified through fingerprint or iris scan.</td>
</tr>
<tr>
<td>*99#</td>
<td>*99# is basically for those who do not have smart phones. You can transfer money just by dialing *99#. Earlier this service was provided by only two telecom service providers i.e. MTNL &amp; BSNL. But by realizing its importance in facilitating in financial inclusion, others also came forward to facilitate it.</td>
</tr>
<tr>
<td>IMPS (Immediate Payment Service)</td>
<td>IMPS facilitates you to make interbank electronic money transfer anywhere and anytime i.e. 24*7 using your mobile phones. It is a very innovative tool to transfer money instantly within banks anywhere across India through mobile and internet.</td>
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<tr>
<td>Digital Wallets</td>
<td>This method is very helpful for regular online shoppers. It offers a secure, convenient, and manageable tool for online shopping. It stores user’s information, both personal and financial such as credit cards details, passwords and Pins to facilitate the order process.</td>
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</tbody>
</table>

**Literature Review**

The literature related to the concept of Digital payment System, its growth, importance, factors impacting Digital payment system, challenges faced by consumers, and role the government play taken from reputed database such as Sage, Taylor And Francis, Emerald, Proquest, Springer, Elsevier and Science Direct is studied and reviewed.

Literature review has been bifurcated into two categories:

- Review of Literature 1- The studies which are conceptual in nature.
- Review of Literature 2- The studies which are empirical in nature.
## Literature Review on Adoption of Digital Payment System

### Review of Literature 1

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Author's name</th>
<th>Objectives</th>
<th>Research Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pardhasaradhi Madasu (2015)</td>
<td>to assess and report the progress made by the RBI in moving towards the ‘Cashless’ economy.</td>
<td>Data collected from RBI database related too cashless transactions from the year 2004-05 to 2014-15.</td>
<td>India did not have a place in the top 16 non-cash markets of the world but China had. In comparison with the credit cards, there had been an increase in the usage of debit cards at ATMs. Non-cash services like Immediate Payment Services or M-Wallet had not made any significant impact.</td>
</tr>
<tr>
<td>2</td>
<td>Bappaditya Mukhopadhyya Y (2016)</td>
<td>To estimate the impact of demographic profile on usage of digital payment system. And to analyse the growth of various non cash methods.</td>
<td>For getting the estimation of cashless transactions that are prevailing in India, the study used data from World Bank’s Global Findex from the surveys that were conducted in year 2011. And it also used data from the household and enterprise surveys which were conducted in year 2009-2010.</td>
<td>The study revealed that an extremely small correlation exists between cashless payments and education level as well as between cashless payments and income earned. It also revealed that a very high positive correlation exists between the people who collect the payments in their bank accounts and of those who are engaged in cashless payments. Prepaid cards and mobile payments showed maximum growth.</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Shilpa Bhimrao Gaonkar (2018)</td>
<td>To explore various payment instruments available to the people, and its benefits.</td>
<td>Conceptual Study. It has used data from reports of RBI, GOI, NPCI, MEDIANAMA etc.</td>
<td>Study revealed that various new instruments are emerging. Benefits of going cashless increased transparency, efficiency and convenience, easier tracking, etc</td>
</tr>
<tr>
<td>4</td>
<td>Dr. N. Rakesh, Dr. K. Suresh Kumar, Dr. S. Satheesh Kumar (2018)</td>
<td>To examine the present scenario of electronic payments and to study the range of service facilities that UPI-BHIM technologies offer.</td>
<td>Analytical and critical method of research is used in the study. And data is collected from the secondary sources such as journals, government websites and news articles.</td>
<td>Electronic transactions have increased. This could happen only with extensive recognition and acceptance of popular instruments such as credit and debit cards, net banking and e-wallets by the Indian population. But surprisingly, UPI came out to be the real distinct advantage.</td>
</tr>
<tr>
<td>5</td>
<td>Dinesh, T. M., Kiran Kumar Reddy, and Suhasini, K. (2018)</td>
<td>To assess how demonetization impacted the digital payments in India.</td>
<td>Exploratory data analysis was conducted and data for the study was collected from NPCI web portal for the period May-2016 to October-2017.</td>
<td>The study revealed that there was a considerable effect of demonetization on digital payments which are more visible in RTGS and mobile transactions.</td>
</tr>
</tbody>
</table>

There has been a marvelous growth in the usage of internet and smart phones in India. Increasing use of internet, mobile penetration and various government initiatives such as Digital India campaign are acting as catalyst which leads to exponential growth in the adoption of digital payment system. After demonetization, Unified Payments Interface (UPI), prepaid payment instruments (PPIs), Aadhaar Enabled Payment System (AEPS) turned out to be the shining stars, along with the decades old well established instruments such as National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS) and cards.
### Review of Literature 2

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Authors</th>
<th>Objectives</th>
<th>Research Methodology</th>
<th>Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lei-da Chen and Ravi Nath (2008)</td>
<td>To identify factors that influence consumer mPayment adoption in the United States.</td>
<td>Data was collected from 299 respondents and analyzed using Confirmatory Factor Analysis and ANOVA.</td>
<td>Perceived Transaction Convenience, Compatibility, Perceived Transaction Speed, Privacy Concerns, Security Concerns</td>
<td>The results suggested that higher transaction speed, transaction convenience, and compatibility perceptions would lead to high propensity to adopt mPayment while grater security and privacy concerns would lead to lower propensity to adopt mPayment. Among all the constructs, Compatibility has the highest correlation with Intention to Adopt.</td>
</tr>
<tr>
<td>2</td>
<td>Sevgi Ozkan, Gayani Bindusara and Ray Hackney (2010)</td>
<td>Through theoretical constructs and an empirical analysis, the study aims to inspect the various critical factors that may ensure consumer adoption of e-payment.</td>
<td>Technology acceptance model and Theory of reasoned action were used. A questionnaire was framed and was sent to 200 people out of which 155 responded. Data was analysed through Pearson's correlation analysis and Multiple regression analysis using SPSS software.</td>
<td>Perceived risk, security, Perceived advantage, trust, Web assurance seals, usability.</td>
<td>The study revealed that three of the critical factors were necessary (security, advantage, web assurance seals) and three were relatively sufficient (perceived risk, trust and usability) through customer intentions to adopt an e-payment system.</td>
</tr>
<tr>
<td>3</td>
<td>İkram Daİtan and Cem Güler (2016)</td>
<td>The study aims to examine the factors which affect the adoption of mobile payment systems by the consumer.</td>
<td>Convenience sampling method was used to survey 225 respondents online. Developed a research model and tested the proposed relationships by SEM.</td>
<td>Perceived Reputation, Environmental Risk, Mobility, Trust, Perceived Usefulness, Perceived Ease of Use</td>
<td>A negative relationship was found between environmental risk and perceived trust whereas a positive relationship was found between firm reputation and perceived trust. Perceived usefulness and perceived ease of use are the factors which do not have any effect on Adoption of MPS. Perceived Trust, Perceived Mobility and Attitude have a positive effect on the adoption of MPS.</td>
</tr>
<tr>
<td>4</td>
<td>Maryam Barkhordari, Zahra Nourollah, Hoda Mashayekhi, Yoosof Mashayekhi, Mohammad S. Ahangar (2017)</td>
<td>The study investigates factors influencing trust in e-payments systems in Iran.</td>
<td>Reviewed the literature and decided on a set of factors influencing security and trust. Then they are tested by empirical work using SEM.</td>
<td>Potentially determinant factors of trust are developed which are technical and transaction procedures, usability and access to security guidelines</td>
<td>Findings revealed that technical &amp; transaction procedures, and access to security guidelines are significant factors for improving consumers' perceived security, while the most important factors in: influencing trust are access to security guidelines and security. Finally, consumers' perceived trust also has a positive impact on EPS adoption.</td>
</tr>
<tr>
<td>5</td>
<td>Dr. M Sumathy and Vipin KP (2017)</td>
<td>The research aims to study the determinants of safety perception and the attitude, awareness level of people towards digital payments.</td>
<td>The data was collected from 100 urban respondents in Malappuram District of Kerala using a Convenient sampling survey. And the tools which were used for analysis were Percentage analysis, one way Anova, independent sample t-test, etc.</td>
<td>Level of awareness, gender, education level and attitude towards digital payment</td>
<td>There found to be no significant difference between level of awareness towards digital payment systems between male and female. Also no relationship existed between education of the respondents and their level of awareness towards digital payment systems.</td>
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</table>
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Findings

objectives
Research
Subho
Alaknanda
Yadav, Samiksha
Sindhu (2018)

Paper aims to understand the factors affecting the increase in user proportion and its significance in adoption of e-wallet and also the disparity in user proportion in metro and tier-2 cities.

Technology Acceptance Model (TAM) is used as the standard reference model. A total 285 valid responses was collected. Factor Analysis and Binomial Logistic Regression are used for analysis.

Perceived usefulness and perceived ease of use

The proportion of users in the metropolitan cities is more than tier-2 cities. ‘Simplicity’ or ease of use turned out to be the only significant variable for e-wallet adoption. Looking at the vendor point of view, the e-wallet adoption is considerably less than what had been expected.

Data was collected through questionnaires from 117 small retailers.

No significant difference was found in convenience for cash and cashless modes of transactions. Also the retailers believe that it is easier for them to deal with cash as compared to cashless instruments. Efforts ought to be engaged towards changing behavior and attitude towards cashless than to scarcely make awareness.

Variables

6

S.
No.

Subho
Chattopadhyay,
Payal Gulati and
Indranil Bose
(2018)

The study aims at evaluating the awareness of the small retailers for the cashless transaction and its modes. And also to understand their difficulties and perceived convenience with it.

perceived level of ease, convenience

No significant difference was found in convenience for cash and cashless modes of transactions. Also the retailers believe that it is easier for them to deal with cash as compared to cashless instruments. Efforts ought to be engaged towards changing behavior and attitude towards cashless than to scarcely make awareness.

Literature review suggests that the study on consumer readiness for digital payments is rapidly emerging in a global context. It has been revealed that Technology Acceptance Model (TAM) has been used extensively to study the adoption of digital payment systems by the consumers. Perceived usefulness and perceived ease of use are found to be the most important factors which have a positive impact on the consumers’ attitude. Other than this Compatibility, simplicity, level of awareness, mobility, trust, security etc have an impact too.

Conclusion

India is no longer lagging behind other countries in joining the digital payment revolution. Digital payments have taken off in India and there are no chances of it to slow down in the future. With the demonetization by government of India of highest currency notes in the country as well as the incentives provided for the adoption of digital payment system by lowering fees and waiving taxes, Indian people are embracing digital payments enthusiastically. Alternatively, as demand for digital payments increases, so will anxiety for security. It is eventually up to the government and companies promoting digital alternatives to cash to provide enough security for their services, furthermore consumers to maintain good security habits.

There are numerous factors including simplicity to use, perceived Usefulness with digital payment system, convenience (i.e. payment anywhere and anytime 24*7), the fast growing smart phone penetration in the country, growth of non-banking payment institutions (payments bank, digital wallets, etc.), progressive regulatory policies and escalating consumer readiness to the digital payment platform which lead to exponential growth of the Digital payments in India. UPI, Aadhar linked electronic payments and improvement of the digital infrastructure are the another key drivers of Digital payments and are being the game changers.

Yet despite this growth, India still keeps on slacking other significant nations. Among the BRICS countries (Brazil, Russia, India, China and South Africa), Russia is running first in the race where more than 200 cashless transactions are made by an average adult annually whereas India remains at under 20. Not only in number of transactions but India also lags in terms of the value of transactions. In 2017, for India, the ratio of non-cash transactions to gross domestic product (GDP) stood at around 1.7 which was the lowest among BRICS, and significantly behind China’s ratio of 45, according to data from the Bank for International Settlements.

References

GJEIS Prevent Plagiarism in Publication
The Editorial Board had used the turnitin plagiarism [http://www.turnitin.com] tool to check the originality and further affixed the similarity index which is 14% in this case (See Annexure-I). Thus the reviewers and editors are of view to find it suitable to publish in this Volume-11, Issue-3, Jul-Sep, 2019

Annexure 1

<table>
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<th>Submission Date</th>
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<td>30-July-2019</td>
<td>1177448676 (turnitin)</td>
<td>2678</td>
<td>15323</td>
</tr>
</tbody>
</table>


4. "Emerging Markets from a Multidisciplinary Perspective", Springer Science and Business Media LLC, 2018

Reviewer's Comments
Reviewer's comment 1:
The bifurcation of literature into two sections i.e. conceptual an empirical is good as it makes it presentable and understandable. Also conceptual studies helped to understand the concept and growth of digital payments and empirical studies helped to understand the factors impacting the Adoption of digital payment system.

Reviewer's comment 2:
The topic of research is contemporary in nature. As the digital payments are growing, so researches on this topic are need of the hour.

Reviewer's comment 3:
Being a review paper, it is completely based on secondary data, Empirical investigation could have been added to authenticate the secondary literature. This leaves the scope for future studies.

Shailiza and Madhulika P. Sarkar
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