A Study on Digital Payments in India with Perspective of Consumer’s Adoption

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Abstract

The demonetization resulted in tremendous growth in digital payments. With the government initiative such as Digital India and increased use of mobile and internet are means to exponential growth in use of digital payment. This transformation towards digital payments benefits in more transparency in transactions which empowers the country’s economy. In recent days many changes took place in the payment system like digital wallets, UPI and BHIM apps for smooth shift to digital payments. The objective of this research paper is to study the positive impact that Digitization of payment system. The present paper focuses on the analysis of the adoption level of these digital payment systems by customers. Primary data was collected from 183 respondents in Hyderabad. The collected data through the questionnaire were analyzed statistically by using chisquare technique.

Key Words: Digital payments, demonitisation, E-Payments, online payments.
1. Introduction

The ‘Digital India’ is the Indian Government’s flagship programme with a vision to convert India into a digitally empowered country. “Faceless, Paperless, Cashless” is one of supposed functions of Digital India.

As part of government reforms Prime Minister Mr. Narendra Modi demonetized the high value currency of Rs. 500 and 1000 in November 2016 and also launched the ‘digital india’ initiative in 2015. These initiatives have provided extensive boost up to the digital payment system in the country. Government’s other initiatives like BHIM and UPI are supporting in transition and faster adoption of digital payments. Electronics Consumer transaction made at point of sale (POS) for services and products either through internet banking or mobile banking using smart phone or card payment are called as digital payment. The digital payment system has the following phases, 1. Registration 2. Invoicing 3. Payment selection 4. Payment confirmation. This payment system generally includes 3 electronic payment instruments namely, cash, cheque and card. Post demonetization is effecting the e-commerce sector that Cash on Delivery is gradually getting stopped and other modes of payment is replace like Card on Delivery, Net Banking, Debit Card, Credit Card etc. Demonetization will positively help out e-commerce industry in India enhances the chance for people to go cashless.

As part of encouraging cashless transactions and transforming India into less-cash society, various modes of digital payments are available.

**Debit / Credit Card**
Suitable for: Online/offline merchant sale.
Transaction limit: Set by card issuer
Details required: Card number CVV Expiry date
Cost: Debit cards: Up to 0.75% for transactions up to Rs 2,000; up to 1% for transactions above Rs 2,000. Credit cards: around 2.5% per transaction

**RTGS / NEFT**
Suitable for: High value online transactions.
Transaction limit: No upper limit, minimum Rs 2 lakh. Up to Rs 10 lakh, minimum Rs 1
Details required: Account number Password Beneficiary registration IFSC code
Cost: RTGS: Up to Rs 55 per transaction. NEFT: Up to Rs 25 per transaction.

**IMPS**
Suitable for: Instant transfer
Transaction limit: Rs 2 lakh per day
Details required: Account number Password Beneficiary registration IFSC code
Cost: Rs 5-15, depending on transaction amount.

**UPI**
Suitable for: Instant transfer
Transaction limit: Rs 1 lakh
Details required: VPA (virtual payment ID) of recipient, m-Pin
Cost: Less than 50 paise per transaction.

**USSD**
Suitable for: Feature phones without Internet connectivity
Transaction limit: Rs 5,000
Details required: Only Aadhaar number, IFSC or code allotted by banks on registration
Cost: As levied by the telecom operator.

**E-WALLET**
Suitable for: Small-ticket transactions.
Transaction limit: Rs 20,000 per month (Rs 1 lakh for KYC-compliant wallet holders)
Details required: Login ID
Cost: Only if you transfer money from your wallet into your bank account.

RTGS: Real-time gross settlement systems
NEFT: National Electronic Funds Transfer
IMPS: Immediate Payment Service
UPI: Unified Payment Interface
USSD: Unstructured Supplementary Service Data

### 2. Literature Review

Sanghita Roy, Dr. Indrajit Sinha (2014) stated that E-payment system in India, has shown tremendous growth, but still there is 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.

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

Rakesh H M & Ramya T J (2014) in their research paper titled “A Study on Factors Influencing Consumer Adoption of Internet Banking in India” tried to examine the factors that influence internet banking adoption. It is found that internet banking is influenced by its perceived reliability, Perceived ease of use and Perceived usefulness. In the process of internet banking services expert should emphasize the benefits its adoption provides and awareness can also be improved to attract consumers’ attention to internet banking services.

Kartikeya Bolar (2014) in his research paper “End-user Acceptance of Technology Interface In Transaction Based Environment “stated that Creators
and investors of technology need information about the customers’ evaluation of their technology interface based on the features and various quality dimensions to make strategic decisions in improving technology interfaces and compete on various quality dimensions.

Nitsure (2014) in his paper 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 problems such as security concerns, rules, regulation and management. In India there is a major risk of the emergence of a digital split as the poor are excluded from the internet and so from the financial system.

Balazs Vinnai, general manager, Digital Channels, Misys(April 25, 2016), says that “It is critical for banks to consider new digital channels as part of an integrated strategy and evolve from first to second generation digital banking: switching digital from a supporting role, to the primary sales and communication channel for banks,” says Vinnai. “Reengineering processes around the customer is not easy, but banks must embrace digital banking to remain competitive and relevant.”

**Objective of the Study**
- To examine the age of respondents impact on digital payments.
- To analyze the impact of customers education on usage of digital payments.
- To analyze the impact of customers income status on usage of digital payments.

**Hypothesis**

H01: there is no significant impact of customers age on usage of digital payments.

H02: There is no significant impact of customers education on usage of digital payments.

H03: There is no significant impact of customers income on usage of digital payments.

**3. Research Methodology**

The study is conducted to obtain data on adoption of digital payment system in India. The study is conducted in Hyderabad region. A sample size of 200 was selected using the convenience sampling, out of which 183 were responded. This represents a response rate of 92%. Structured questionnaires are used for collecting data. The responses from the respondents were analyzed using the simple percentage analysis and Chi square test.
Data Analysis and Interpretation

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>59</td>
<td>32.2</td>
</tr>
<tr>
<td>Male</td>
<td>124</td>
<td>67.8</td>
</tr>
<tr>
<td>Total</td>
<td>183</td>
<td>100</td>
</tr>
</tbody>
</table>

maximum respondents, 67.8% were male only 32.2% were female, engaged with digital banking. Previous studies shows that Gender does not make difference in adoption of technology in banking sector.

The above table shows the Demographic factors of the customers of the banks. It is showing that 34.4% and 33.3% respondents were belonged to the age group of 31–40 and 41–50 years respectively. Only 10.9% respondents were below 30 years and 21.3% respondents were above 50 years.

<table>
<thead>
<tr>
<th>Income</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 1,00,000</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>1,00,000 to 3,00,000</td>
<td>46</td>
<td>25.1</td>
</tr>
<tr>
<td>3,00,000 to 5,00,000</td>
<td>61</td>
<td>33.3</td>
</tr>
<tr>
<td>5,00,000 to 10,00,000</td>
<td>24</td>
<td>29.3</td>
</tr>
<tr>
<td>Total</td>
<td>183</td>
<td>100</td>
</tr>
</tbody>
</table>
The above table shows that 14.8% respondents were Primary educated, 23% and 23.5% were with secondary and technical education respectively, 20.2% were with University education, and 18.6% of the respondents were with other education. The earlier studies proved that education plays the role in adoption of technology. The respondents of technical education of the study area shows that the technology adoption will be quite encouraging.

**Hypotheses Testing Using Chi-square Analysis**

H01: There is no significant impact of customers age on usage of digital payments.

<table>
<thead>
<tr>
<th>Impact of age on technology adoption</th>
<th>Age (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21-30</td>
</tr>
<tr>
<td>Yes</td>
<td>4.3%</td>
</tr>
<tr>
<td>No</td>
<td>6.5%</td>
</tr>
<tr>
<td>Total</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

From the above table it is observed that $p<0.05$, age plays an important role in the adoption of digital payments and proved that this is positively correlated with age.

H02: There is no significant impact of customers income on usage of digital payments.

<table>
<thead>
<tr>
<th>The income of the bank customer impacts the scope of technology</th>
<th>Income in lakh</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5.3%</td>
<td>48.6%</td>
</tr>
<tr>
<td>No</td>
<td>6.5%</td>
<td>51.4%</td>
</tr>
<tr>
<td>Total</td>
<td>12.8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

From the above table it is observed that $p<0.05$, income plays an important role in the adoption of digital payments.
From the above table it is observed that \( p > 0.05 \), hence the null hypothesis is accepted. Therefore the usage of digital payments does not depend on income of the customers.

H03: There is no significant impact of customers education on usage of digital payments.

<table>
<thead>
<tr>
<th>Impact of education on Adoption of Banking technology</th>
<th>Education</th>
<th>Total</th>
<th>Chi-square</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>12.02%</td>
<td>12.57%</td>
<td>0.74%</td>
<td>8.20%</td>
<td>7.13%</td>
</tr>
<tr>
<td>No</td>
<td>2.73%</td>
<td>10.31%</td>
<td>14.75%</td>
<td>12.02%</td>
<td>11.44%</td>
</tr>
</tbody>
</table>

From the above table it is observed that \( p < 0.05 \), Hence it proves that the usage of digital payments depends on customers education. More Educated people are expected to have more favorable attitudes towards adoption of innovations. Therefore the null hypothesis is rejected.

**Limitations of the Study**

The research was carried based on primary and secondary data. The primary data for research objectives was collected from the samples based in Hyderabad city only. Though Hyderabad is one of the most significant cities of the country and a commercial hub of south India, with only 183 samples selected from the city cannot be considered as a complete representation of the population of the country. However, the objective of the survey was to verify the customers perceptions on digital payments with regard to the concept of general banking. Thus, this may not create obstruction in achieving the desired objective even if Hyderabad city cannot replicate other major banking hubs of the country. For primary data, non response error cannot be ruled out.

**4. Conclusion**

The study examines the effect of adopting digital payments impact on consumers of the banking sector of India. The result put together gives us an important policy direction towards what can enable the country to increase cashless payments. The results indicate that the deployment of technology for digital payments have improved the performance of banking sector and able to achieve the motive cash less country. The study gives emphasis to the percentage of awareness on maximum utilization of technology. Banks should take effective measures in creating awareness towards the effective usage of technology and security.
References


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