

HOW DIGITAL PAYMENT INFLUENCES CONSUMER BEHAVIOR: A CASE STUDY OF UTTARAKHAND, INDIA

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Abstract

The world is changing at an extremely rapid pace with Internet being at the center. Internet has changed the way we live and perform our routine tasks. With the increasing popularity of internet, market is now flooded with Internet based services; One of the important of all is digital payment. Digital payment involves electronic medium for fund transfer and payments. The payment methods of people are changing from cash payments to digital payments. Digital payments have a significant impact on consumer behavior of people. With Demonetization currency notes of 500 and 1000 were declared invalid which led to a cash crunch in the economy. As a result usage of digital payment increased. This study focuses on the impact of digital payment on the consumer behavior. The research is exploratory in nature. The current study is conducted amongst respondents from Uttarakhand, India. Data has been collected from multiple sources like books, journals, websites and newspapers. The study reveals shift in consumer behavior from traditional payment methods due to consumer awareness, convenience, safety and security, availability of digital payment tools, incentives, Smartphone penetration, internet connectivity etc. The outcome of this study can be useful for the FinTech companies and Governments to encourage digital payments.

Keywords – Digital payment, consumer behavior, Buyer intention, Internet

1. Introduction

According to the Payment and Settlement Act of 2007, Digital Payments are any "electronic money transfer." When a person instructs, authorises, or orders an electronic transfer of funds from or to a bank account managed by that bank, it includes point-of-sale transfers, ATM transactions, direct deposits or withdrawals, and transfers started by telephone, internet, or card payment. The global economy's expanding; Digitalization is transforming how goods and services are created, delivered, and acquired all over the world. Along with this transition, digital payments are empowered by rapidly built-up digital platforms and infrastructure in the financial system, which has permeated each individual's life and revolutionized the way daily transactions are made.

Developing digital payments in India is driven by service providers, an effective banking regulatory framework, and user experience. These are also growth drivers for digital payments in India (Sumathy and Vipin, 2017). Arvidsson et al, 2014; have stated that currency will someday become obsolete, and that we will live in a cashless future, and with schemes like Digital India, Government of India is also pushing digital payment.

1.1- Digital Payment Instruments

Digital payments provide one-of-a-kind options. Global trends suggest that client expectations for incentive-based and value-added services are rising. Because of the introduction of new technologies and an ever-changing regulatory framework, competition has intensified.

India is on a roll with digital payments, especially after the country was rocked by demonetization on November 8, 2016. The post-midnight ban on Rs 500 and 1000 notes affected 86 percent of the cash in circulation (ChaithanyaBandi et al 2019). It encouraged consumers to explore digital payment methods. The digital payment instruments taken into account in the study are listed below.

1	Internet Banking	4	Credit Card
2	BHIM Aadhar Pay	5	Debit Cards
3	Unified Payments Interface (UPI)	6	Prepaid Payment Instruments (PPIs)

1.2-Global Digital Payments Scenario

Globally, the usage of digital payments is increasing. According to Braintree's 2018 Global Payments Report, 2.1 billion people will have used a digital wallet by 2019, a 30 percent increase from 2017.

According to a United Nations research, mobile applications and digital currencies are likely to replace credit and debit cards as the most popular e-commerce payment methods globally in 2019.

Payment preferences differ throughout the world - Younger customers are driving the expansion of mobile payments in North America, with one in every three millennial and more affluent consumers frequently utilizing mobile devices to make purchases in-store and online. Older and less affluent consumers, on the other hand, favor more traditional payment options. Consumers in North America continue to prefer debit and credit cards, but the region's payments business is growing more dynamic, according to reports. Payment Week by Payment Week: The Changing State of Global Payments

According to ReportLinker, the digital payments industry is predicted to increase at an average annual rate of 18 percent between 2018 and 2023, with a turnover of \$ 87 billion by 2023.

1.3 Digital Payments in India

Higgins (2019) investigates the relationship between merchant and customer acceptance of debit cards in the context of a government roll-out of debit cards in Mexico. The study expands on the results of Agarwal et al. (2018) and Crouzet et al. (2019) that the demonetization of cash resulted in a significant and sustained increase in the usage of digital payments.

India is riding a new wave of digital services and payments, indicating a revolutionary process that is deeply ingrained in the way individuals and businesses conduct business in India. According to a Google – Boston Consulting Group estimate, the digital payments sector in India would be worth \$500 billion by 2020, accounting for 15% of India's GDP- Dr. N. Rajendran, Chief Technology Officer, NPCI

According to a recent TRAI study, India has surpassed the one billion milestones in terms of mobile Smartphone users. With the combined efforts of the government and commercial telecom operators, internet will be made available to the most distant parts of the country, promoting the usage of digital

banking progressively. Better digital literacy will result from increased internet availability, prompting new users to switch to digital payments.

2. Review of Literature

Technology is changing much faster today than it was fifty years ago, and adoption of new technologies has become the most important factor among goods and service providers in order to meet ever-increasing customer expectations, as customers are exposed to vast amounts of information about new products and services (Liu et al., 2012).

In comparison to other technology, mobile phones, particularly smart phones, have had the greatest impact on human life during the previous decade (Jack and Suri, 2011). Our world has almost entirely gone virtual; we have progressed from conventional brick and mortar stores to a world full of digital markets today, all thanks to the quick adoption of mobile phone technology and the Internet (Thakur and Srivastava, 2014). The worldwide expansion of the Internet gave rise to the electronic payment system, which is defined as "the use of debit and credit cards, smart cards, e-wallets on the Internet, or other electronic devices to execute daily transactions."

"We utilize digital payments in activities such as paying for products and services, transferring money, and paying bills, among others," noted Gholami et al. (2010). Because we utilize electronic payment rather than cash to acquire products and services, digital payment alleviates the strain of carrying currency (Roy, S., & Sinha, I. (2014).).

The rising digitization has a significant impact on manufacturing and distribution. Along with this revolution, digital payments enabled by rapidly built-up digital platforms and infrastructure in the financial system have permeated each individual consumer's life and changed the way daily transactions are performed. It is often assumed that currency will someday become obsolete, and that we will live in a cashless future (Arvidsson and Markendahl, 2014; Carton and Hedman, 2013). With the advancement of technology, customers now have a variety of payment options (Pulina, 2011; Soman, 2001, 2003; Srivastava & Raghbir, 2008;) that make transfers and payments more convenient, acceptable, and accessible (Soman, 2001). Previous research also indicates that there is a broad consumer interest in adopting digital payments (Dewan & Chen, 2005; Kreyer et al., 2003). Previous research has shown that customers are typically interested in utilizing digital payment methods (Dewan & Chen, 2005; Kreyer et al., 2003).

The Indian government is also promoting the digital economy through its Digital India program. Digital payments improve financial transaction transparency while also lowering tax burdens and boosting public welfare and delivery systems. The Indian government has made considerable advancements to enable the expansion of digital payment systems. All segments of society now have access to digital payment as a result of these measures. Financial incentives and comprehensive training were also made available to educate and inform individuals about the usage of these systems. Despite the many benefits of digital payments, incentives, and advertising, consumers are still hesitant to adopt various digital payments. The customer purchasing process has evolved as a result of the availability of several digital payment choices nowadays. Consumers have a range of payment alternatives with a variety of incentives such as cash back, bonuses, discounts, EMI options, and so on.

A number of research have previously been undertaken to investigate how digital payments affect consumer behavior, mostly in industrialized nations. In the study done by Stango and Zinman (2009), millions of consumers in the United States use debit and credit cards for shopping and

payments. Customers have been relieved of numerous inconveniences as digital forms of money have increased liquidity and ability to purchase goods and services. These cards have been a big hit all around the world, particularly in developing nations. Scholnick et al. (2008) performed research to better understand the economics of plastic money, including debit and credit cards. They explained how the price of such cards has a significant impact on demand and sales volume. Previous research has also shown that demographic parameters such as gender, age, education level, income, marital status, culture, and so on heavily impact the adoption of electronic payments (Abdul-Muhmin and Umar, 2007; Wickramasinghe&Gurugamage, 2009).

According to Yang and Shuting (2021), the benefits of digital payment are represented in lowering transaction costs, boosting consumer surplus, and driving consumption. Furthermore, the consumer credit given by the third-party payment platform alleviates consumers' liquidity limitations in the purchase process to some extent; the third-party payment alleviates consumers' payment pain, hence boosting payment. In addition to operational improvements, payment digitalization provides significant demand-side benefits. Consumers that migrate to digital payments for exogenous reasons tend to buy more expensive things, more items per basket, conduct larger orders, and return items less frequently. (ChaithanyaBandi et al., 2019).

3. Need of the Study

A huge portion of the population in India relies on cash to acquire goods and services. During the last ten years, a new segment of Indian customers has emerged, one whose inclinations are very innovative and show a preference for cashless ways of monetary transaction. People in their 20s to 60s who are employed in cities and have access to private savings accounts, instalment cards, and the internet and smartphones are a significant part of this group. Demonetization caused Cash crunch in the economy where 86% of the cash was blocked, this led to high use to Digital payment methods. People started trying new innovative techniques to make payments and Government's favorable policy also played a crucial role in pushing digital payments.

Very few studies have been done that builds a Broad relation between Digital payments and Consumer buying behavior, especially in Uttarakhand. Previous research has focused on adoption of digital payment methods, issues and challenges but a general view on Consumer behavior is less explored. So, it's high time to explore this issue to study the customer buying behavior towards Digital payments, preferences of instruments and demographic factors also.

4. Research Gap

The concept of Consumer buying Behavior has been extensively researched upon in other countries but no extensive research has been done in India. This area has not been explored much particularly in Uttarakhand State. Most of the research has been done on adoption of Digital payment methods, issues and challenges. Previous studies shows the relation between cashless transactions and consumer behavior, but Digital payments and buying behavior is less explored.

Therefore, the present study has focused on consumer buying behavioral aspect of Digital payments. Consumer buying behavior plays a vital role in development and selection of new products and services. The Study analyzes the factors influencing Digital Payment and its impact on consumer buying behavior.

5. Conceptual Framework

Conceptual framework of study has been adopted from UTAUT Model (Unified theory of acceptance and use of technology). UTAUT is a technology acceptance model formulated by Venkatesh and others (2003) in "User acceptance of information technology: Toward a unified

view". In our adopted model, we aim to explain user intentions to use digital payment and subsequent buyer behavior. The theory holds that there are four key constructs:

Performance-Expectancy (PE)

Performance-Expectancy of digital payment usage refers to how much a person sees the technology as beneficial in their daily lives. The Internet, social networking, mobile banking, gaming, and online buying may all be done with a digital payment.

Effort expectancy (EE)

Effort expectancy may be described as the extent to which an individual believes that utilising a digital payment is simple. EE was taken from TAM and renamed "Perceived Ease of Use." Designs that are simple to operate and learn might help boost mobile service usage.

Social influence (SI)

Social Influence of digital payment usage is the degree to which a person believes that other individuals who are important in his/her life think that he/she should use digital payment. A person's friends, family, and coworkers have an impact on him or her.

Facilitating-Conditions (FC)

Facilitating-Conditions of digital payment usage can be defined as the extent of an individual's consideration about the availability of proper knowledge and assistance to continue the use of digital payment. There are a number of skills and expertise that are required to utilise digital payment, such as installing new apps and maintaining settings.

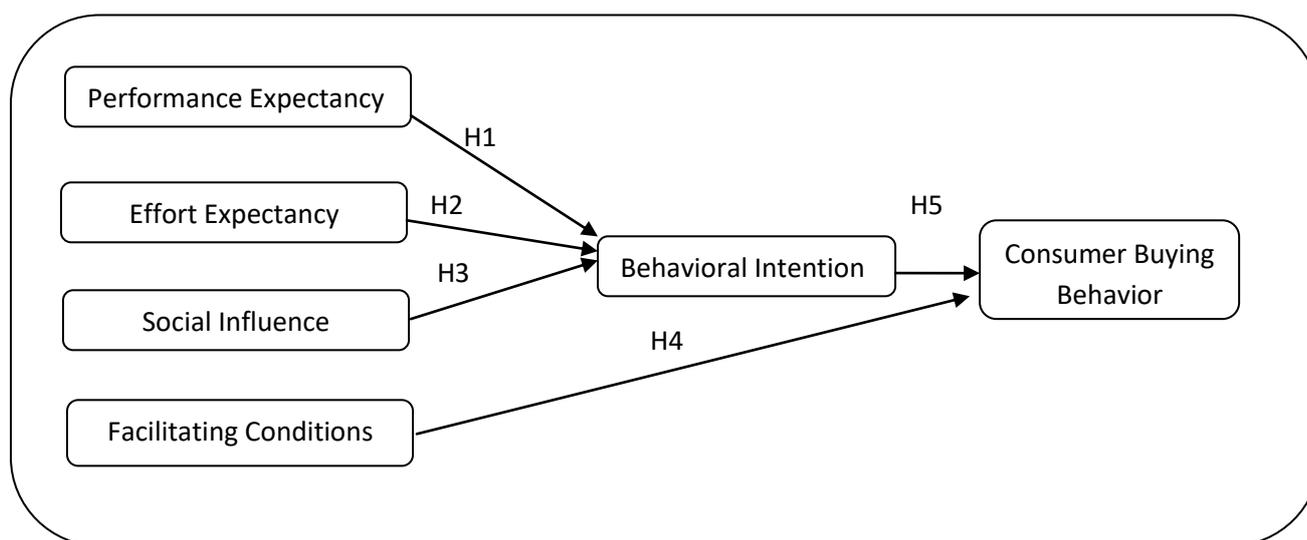


Figure 1: Conceptual framework of the study

Hypothesis of the Study

H1. "Performance Expectancy" of Digital payment has a significant positive effect on "Behavioral Intention" to use a Digital payment.

H2. "Effort Expectancy" of Digital payment has a significant positive effect on "Behavioral Intention" to use a Digital payment.

H3. "Social Influence" of Digital payment has a significant positive effect on "Behavioral Intention" to use a Digital payment.

H4. “Facilitating Conditions” of Digital payment has a significant positive effect on Consumer buying behavior

H5. “Behavioral Intention” to use a Digital payment has a significant positive impact on Consumer buying behavior

6. Research Methodology

The research design is descriptive & exploratory. Universe of study includes the Professionals who use digital payment methods for buying Goods and services. Multistage sampling is used for the division of the state of Uttarakhand into regions & further into districts and cluster sampling is used for the selection of customers. Selection of Professionals is done on the basis of Education, Skills and Remuneration in Uttarakhand State. Selected Professions are Bankers and Engineers. The sample unit consists of the Selected Professionals who use Digital Payments methods for buying goods/services, in Uttarakhand state with a Sample Size of 350 Respondents

6.1- Methods of Data Collection

Primary data was collected using a Google form that was completed by the study's target demographic. According to the 2011 census, Uttarakhand is historically divided into two areas, Garhwal and Kumaon, and one district from each region is picked based on population and geographic representation.

The occupational distribution of workers by skill at the district level shows that in 2017, the proportions of workers engaging in high skilled activities was also higher in Dehradun (14.4 per cent) with population 16,96,694 (Census 2011) and Nainital (10.3 per cent) with population 9,54,605 (Census 2011), Uttarakhand HDI ,2018 .

Further the both the districts are divided into Urban and Rural Areas using quota Sampling. And later snow ball sampling will be used to find individual respondents.

7. Data Analysis and Interpretation

Table – 1, Demographic Profile of the Respondents

Age	Frequency	Percent
18 - 30 Years	245	70.0
31 - 40 Years	103	29.4
41 - 50 Years	2	.6
Total	350	100.0
Gender	Frequency	Percent
Male	184	52.6
Female	166	47.4
Total	350	100.0
Educational Qualification	Frequency	Percent
Graduate	162	46.3
Post-Graduate	182	52.0
Dr.(Phd)	2	.6
Others	4	1.1
Total	350	100.0

Annual Income	Frequency	Percent
0- 2.5 L	207	59.1
2.51 lakh- 5 lakh	56	16.0
5.1 lakh- 7.5 lakh	31	8.9
7.51 lakh – 10 lakh	24	6.9
10.1 lakh- 12.5 lakh	20	5.7
12.51 lakh- 15 lakh	2	.6
Above 15 lakh	10	2.9
Total	350	100.0
Region	Frequency	Percent
Garhwal	277	79.1
Kumaon	73	20.9
Total	350	100.0
Occupational Status	Frequency	Percent
Banker	261	74.6
Engineer	89	25.4
Total	350	100.0

- 70 % of respondents are from the age of 18 - 30 Years, 29.4% of respondents are from the age of 31-40years, 0.6 % of respondents are from the age of 41-50, Hence it is interpreted that majority of the respondents are of age group of 21-30.
- 52.6 % of respondents are male, 47.4 % of respondents are female. Hence it is
- Interpreted that majority of the respondents were Male in gender.
- 46.3 % of the respondents are Graduate, 52 % of respondents are Post Graduates, 0.6 % respondents are PhD (Doctorates) and 1.1% of respondents have done other courses. Hence it is found that majority of the respondents are Graduate in their educational status.
- 59.1 % of the respondents earn less than 2.5 lakh rs per month, 16 % of respondents earn between 2.51 lakh- 5 lakh, 8.9 % respondent earn between 5.1 lakh- 7.5 lakh, 6.9 % respondents earn between 7.51 lakh – 10 lakh, 5.7 % respondents earn between 10.1 lakh- 12.5 lakh, 0.6 % respondents earn between 12.51 lakh- 15 lakh and 2.9 % respondents earn above 15 lakh. Hence it is interpreted that majority earn less than 2.5 lakh rs a year.
- 79.1 % respondents' hail from Garhwal region, 20.9 % respondents are from Kumaon region. Hence it is interpreted that majority of respondents are from Garhwal region of Uttarakhand.
- 74.6 % respondents' are banker, 25.4 % respondents are Engineer. Hence it is interpreted that majority of respondents are Banker.

7.1- Measurement Model –The measurement model is the part of the model that examines relationship between the latent variables and their measures.

Data Reliability refers to the degree to which research method produces stable and consistent results. If the value of Cronbach's Alpha and Composite Reliability is above 0.7, the variables are accepted as reliable

Table - 2

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Behavioral Intention	0.912	0.938	0.791
Consumer Buying Behavior	0.883	0.911	0.631
Effort Expectancy	0.818	0.881	0.653
Facilitating Condition	0.807	0.886	0.721
Performance Expectancy	0.934	0.953	0.836
Social Influence	0.735	0.830	0.552

Research Validity- Research validity refers to how well an instrument as measures what it is intended to measure. Convergent and Discriminant validity are both considered subcategories and subtypes of construct validity.

Table -3

Fornell-Larcker Criterion	Behavioral Intention	Consumer Buying Behavior	Effort Expectancy	Facilitating Condition	Performance Expectancy	Social Influence
Behavioral Intention	0.889					
Consumer Buying Behavior	0.675	0.794				
Effort Expectancy	0.728	0.734	0.808			
Facilitating Condition	0.637	0.543	0.574	0.849		
Performance Expectancy	0.732	0.692	0.691	0.532	0.914	
Social Influence	0.704	0.610	0.687	0.606	0.712	0.743

Average Variance Extracted represents validity of data. The values of AVE above 0.50 are accepted. AVE helps in measuring convergent validity.

A test's discriminant validity can be proved by the absence of a strong correlation between measurements of constructs that are theoretically supposed to be unrelated. It is reasonable to expect that discriminant validity coefficients will be less than convergent validity coefficients in terms of absolute magnitude.

7.2- Structural Model& Hypothesis Testing - The link between the latent variables is referred to as the structural model. statistical significance is defined as having an error rate of less than 0.01 (usually less than 0.05). There is less than a 5% chance that the null hypothesis is right, which shows significant evidence against it (and the results are random). As a result, the null hypothesis is rejected and the alternative hypothesis is accepted.

Table-4

Hypothesis	Mean, STDEV, T-Values, P-Values	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypothesis
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H1	Performance Expectancy -> Behavioral Intention	0.306	0.057	5.426	0.000	Accepted
H2	Effort Expectancy -> Behavioral Intention	0.282	0.055	5.122	0.000	Accepted
H3	Social Influence -> Behavioral Intention	0.165	0.066	2.431	0.015	Accepted
H4	Facilitating Condition -> Behavioral Intention	0.212	0.060	3.559	0.000	Accepted
H5	Behavioral Intention -> Consumer Buying Behavior	0.677	0.040	16.872	0.000	Accepted

8. Findings/Conclusion of the Study

According to the findings, consumers' behavioral intention to use mobile payments is most strongly influenced by their expectations for performance/perceived usefulness, followed closely by their expectations for simplicity of use. The ease of these digital payment alternatives is also a major element in the consumer's decision to utilize them. Customers' purchasing habits have changed dramatically since they began carrying smartphones and internet connections in their pockets.

According to research, consumers enjoy the convenience of using plastic currency to make purchases. Lately, the utilization of plastic currency has become widely recognized over the globe due to exceptional advancements in innovation.

9. Future Scope of the Study

The result obtained from the analysis and interpretation of data can be considered for discussion and findings. Further recommendations can be useful to the Financial Institutions/ FinTech Companies on how to encourage the customers to use Digital Payment Methods and to understand the behavior of the customer's regarding Digital Payment and to analyze the factors which lead to the usage of Digital Payments.

The recommendation of this paper includes Consumer Education, Additions of application / feature, a complete framework of Policy and Regulation to smoothen the digital payments process.

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