RESEARCH ARTICLE

An Empirical Study To Analyse Impact Of Demographic Factors On Consumer Perception Towards E-Payments With Reference To National Capital Region, India

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Abstract

In the present world, smartphones play an important role in the daily life of people. Technological advancement has made smartphones as devices where mobile users can make money transactions or payment by using applications installed on the smartphone. It's no secret that people today are digital natives. In this technology-driven society, paying for a cappuccino using a pay-and-go method or buying a sweatshirt with a one-click model, has become the norm. Backing away from cash, they drive innovation in the digital payments industry. That's the reason digital-driven payments become one of the trends ripe in this digital push era.The research is an attempt at analyzing the impact of demographic factors on consumer selection of the mode of payment along with an understanding of what people think about the idea of paying online and up to what extent they find it more convenient. It is also about knowing factors that affect the consumer's decision to adopt mobile wallets and various risks and challenges faced by the users of the mobile wallet. An extensive literature review is also done and a lot of information is collected from different sources. In this research, the primary data is collected from the people of the National Capital Region. For this research, the convenience sampling method and snowball sampling method of non-probability sampling is used. The tool used for the collection of data and making of questionnaires is google forms and data is collected from 215 respondents. For tabulation and analysis of data, analytical tools like Microsoft Excel and SPSS is used.

1.INTRODUCTION

Technology is going hand in hand with changes. The rate of change is increasing at a very high rate, showing no sign of slowing down. We are now undergoing a major revolution, or similar to an Industrial Revolution.The internet and the rise in technology have completely changed our way of living-how we talk, how we operate, how we do our daily business, how we manage our money and yes, how we make payments for the products or services purchased.Technological changes mean disruptions and any disruption creates opportunities and one such disruption was the announcement of demonetization by Prime Minister Mr. Narender Modi on 08 November 2016. According to Ratan Watal (2017),Demonetization created umpteen growth opportunities for digital payment in India and the digital wallet companies garbed the opportunities with both the hands to expand their market share as digital payments grew 55% by volume and 24.2% by value in 2016-17 over the previous year.[1]

Demonetization has provided Indian consumers with a unique platform for digital payment adoption as an alternative to money.Recent steps by Government has greatly accelerated the adoption of cashless transactions. According to Shira and associates (2017)demonetization of Rs. 500 and 1000 high-value currency (86% of cash circulation) resulted in unprecedented digital payment growth, which in turn changed the generations lifestyle.India is moving rapidly towards online payment. The easiest and fastest solution in the busy life of people for making payments is through e-wallet.[2]

2.Popular Digital Payment Modes in India:

According to cashlessindia.gov.in,MeitY (2020), there are several modes of digital payment available in India.[3] These are:

Online or mobile wallets: They are used via the internet and through smartphone applications. Money can be stored on the app via recharge by debit or credit cards or net-banking. The consumer wallet limit is Rs. 20,000 per month and the merchant wallet limit is Rs. 50,000 per month after self-declaration and Rs. 100,000 after KYC verification.

Prepaid credit cards:

Preloaded to the bank account of the user. It's similar to a gift card; customers can make purchases using funds available on the card, not on bank loans. Can be recharged up to a specified limit as a mobile phone recharge.

Debit/RuPay cards:

These are linked to an individual's bank account. Can be used at shops, ATMs,online wallets, micro-ATMs, and for e-commerce purchases. Debit cards have overtaken credit cards in India. The number of debit cards in December 2015 increased to 630 million compared to 22.75 in 2014.

AEPS: The Aadhaar Enabled Payment System uses the 12-digit

unique Aadhaar identification number to allow bank-to-bank transactions at PoS. AEPS services include balance inquiry, cash withdrawal, cash deposit, and Aadhaar to Aadhaar fund transfers.

USSD: Stands for mobile banking based on unstructured supplementary device data. It is connected to the merchant›s bank account and is used for transactions up to Rs. 5,000 per day per customer via mobile phone on the GSM network.

UPI: The United Payments Interface (UPI) envisages being a device that controls multiple bank accounts (from any participating bank) onto a single mobile application platform. Combines multiple banking features, ensures seamless routing of funds, and payments from merchants. This allows the transfer of funds from the P2P.

According to Krithika (2019) and Shira and associates(2017), these are the top 5 digital wallets in India.[2,4]

3.Review of Literature

Sharma, Aggarwal, and Gupta, (2019) A Study of Consumer Perception Towards Mwalletsin their paper proposed that there are three main factors mobility, convenience, and trust were found to be most significant on the consumers' acceptance of mwallets.[5]The study indicated that convenience was the utmost useful factor in mwallet usage acceptance, followed by trust and then mobility. Trust was the factor that the survey respondents appreciated the most while using mwallets and at the same time it poses as a challenge for mwallet providers to provide appropriate security for payments through mwallets.

R Renjan and KamalAnju, (2019) Perception of Smartphone users Towards Mobile Payment System an Empirical Study in their paper concluded that the utility from mobile payment platforms is one of the main drivers of their business.[6] The level of accessibility, convenience, and comfort along with the monetary and non-monetary offers offered by these firms are founded to be the deciding factors. Income has no relation to the selection of mobile payments, but education and awareness are found to be the deciding factors.

Gokilavani, Kumar, Durgarani, and Mahalakshmi, (2018) A Study On Perception Of Consumers Towards Digital Payment in their paper concluded that half of consumers have a moderate level of perception towards digital payment.[7] A significant difference exists between the perception of consumers towards digital payment and their socioeconomic status. The superiority, efficiency, safe and secured, convenient, cost and time savings, user friendly, easiness, and protection of privacy of digital payment have a positive and significant influence on the rate of adoption of digital payment of consumers.

Yuvaraj and Eveline. N, (2018) Consumers' Perception Towards Cashless Transactions and Information Security in The Digital Economy in their paper reveals that majority of the consumers prefers credit/debit card has the most comfortable mode of

Table 1: Top five digital wallets in India

Sl. No.	Wallet Name	Key Features
1	Paytm	Transferring money instantly to the bank from Paytm account Safe to store customer's CVV number Paytm has launched an app password feature for Paytm Wallet to ensure the money is safe even if the customer loses or misplace his/her phone. A customer can use Paytm even without a Smartphone Number of installs: 100 Million (or 10 crores) on Android Play Store
2	Amazon Pay	Uses the consumer base of Amazon. Focuses on giving users the option to pay with their Amazon accounts on external merchant websites, including apps like Big Bazaar, etc. Number of installs: Undisclosed
3	Google pay	Formerly known as Tez Google Pay works with your existing bank account Don't need to do additional KYC Number of installs: 100,000,000+ (100 Million or 10 crore) on Android Play Store
4	PhonePe	Very good user interface One of the safest and fastest online payment experience in India Number of installs: 100,000,000+ (100 Million or 10 crore) on Android Play Store
5	Mobikwik	Independent mobile payment network that supposedly connects 25 million users with 50,000 retailers and more This mobile wallet lets its users add money using debit, credit card, net banking and even doorstep cash collection service The unique feature they have is their expense tracker- allows you to set the budget for your expenses across all payment instruments, uses your SMS data to analyze and control spends Number of installs: 10,000,000+ (10 Million or 1 crore) on Android Play Store

Source: https://www.socialbeat.in/blog/top-10-mobile-wallets-in-india/

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payment followed by mobile wallets.[8]It was also found that privacy and security, followed by convenience are the most important factors which influence consumers towards cashless transactions.

Akhila Pai H, (2018) Study on Consumer Perception Towards Digital Wallets in his paper found that when a user is making an online payment via digital-wallets, the respondents are affected by various assorted factors.[9] One of the main obstacle is security issues, due to which the users get anxious about his or her confidential information which may get disclosed.

Manikandan and Javakodi, (2017) An Empirical Study On Consumers Adoption Of Mobile Wallet With Special Reference To Chennai City in their paper found that Mobile wallet usage awareness as spread among the people in India due to government policy of demonetization and this as forcefully induced the usage of the mobile wallet.[10]The security issues tightening and risk factors are reduced will automatically increase the adoption of mobile wallet.

KPMG,(2017) Digital payments- Analyzing the cyber landscape conducted a survey to know the factors enhancing the use of digital payment and the results showed that the long term success for digital payments would be contingent of convenient and easy to use mode, a robust regulatory framework, an effective customer redressal framework, foolproof security measures to enable confidence and trust, befits similar to cash transactions i.e. ease of use, universal acceptability, perceived low cost of transaction, convenience and immediate settlement.[11]

4.Objectives
The main objectives of the study are
1. To know whether consumer demographics and mode of payment are associated or not
2. To check whether internet literacy has any impact on the selection of mode of payment or not
3. And to know the factors that are considered by people while deciding their mode of payment

5.Hypothesis Testing and Analysis
These hypotheses are formed for testing after doing an extensive literature review and in pursuance of the above objectives:

H01 There is no significant impact of gender of respondents on selection of mode of making payment

H02 There is no significant impact of age of respondents on selection of mode of making payment

H03 There is no significant impact of profession of respondents on selection of mode of payment

H04 There is no significant impact of internet literacy of respondents on selection of mode of payment

H05 There is no significant impact of education status of respondents on selection of mode of payment

H06There is no significant impact of income level of respondents on selection of mode of payment

6.Research Methodology
The current study is based on primary data collected from 215 respondents from the different parts of NCR Cities. A well-structured questionnaire was designed to collect the information from the respondents. The questionnaire was

designed to study the perception of customers towards the adoption of digital payment mode. Likert five-point scales were used for obtaining responses.

7.Sampling Plan
Sampling unit: This call is for defining the target population to be surveyed. In this research, the sampling unit was the customers who have been using the digital payment modes.
Sample size: In this survey, the sample size decided was 215.

8.Research and Statistical Tools Employed:
The research and statistical tools employed in this study are ANOVA and frequency analysis. SPSS was used to perform statistical analysis. Cronbach's Alpha test was used to find the reliability of the data. Frequency analysis on the main factor under study, indicate overall satisfaction levels of respondents with digital payment mode. ANOVA was carried out to test one variable, i.e., mode of making payment among different groups of demographics of respondents like age, gender, education, profession, income, and internet literacy and to find the variance in the responses and to test the hypothesis.
Results and discussions
The analysis of this data was divided into the following section:
(i) Respondents Profile: Table 2
(ii) Reliability and Validity: Table 3
(iii) ANOVA: Table 4
(iv) Frequency Analysis: Tables 5 and 6

9.Reliability and Validity
Table 3 shows the result of reliability analysis- Cronbach's Alpha Value. This test measured the consistency between the survey scales. The Cronbach's Alpha score of 1.0 indicates 100 percent reliability. Cronbach's Alpha scores were all greater than the Nunnaly's generally accepted score of 0.7. In this case, the score was 0.655 for the digital payment modes used by the respondents.

10.Hypothesis testing: ANOVA Computation
To test the hypothesis, ANOVA was carried out. The results are given below. Table 4 gives the result of ANOVA computation based on gender, age, education, profession, annual income, and internet literacy of the respondents.

To analyze the above table and test the hypothesis, the p-value approach is used, wherein we compared the p-value/ Sig value with the level of significance, i.e., 0.05 (5%).
H01 There is no significant impact of gender of respondents on selection of mode of making payment

The p-value of 'Gender' is more than the level of significance, i.e., $0.716 > 0.05$.

Hence we accept our null hypothesis and conclude that there is no significant impact of gender of respondents on selection of mode of making payments.

H02 There is no significant impact of age of respondents on selection of mode of making payment

The p-value of 'Age' is less than the level of significance, i.e., $0.001 < 0.05$.

Hence we reject our null hypothesis and can say that there is a significant impact of age of respondents on selection of mode of making payments.

Table 2: Respondents Profile

Variable	Characteristics	Frequency	Percentage
Gender	Male	108	50.23
	Female	107	49.77
Age group	18 - 24 years	73	33.95
	24 - 30 years	51	23.72
	30 - 36 years	49	22.79
	36 years and above	42	19.53
Education	10th	7	3.26
	12th	20	9.30
	Graduation	87	40.47
	Post-Graduation	70	32.56
	Professionals	25	11.63
	Doctorate	6	2.79
	Retired	0	0.00
Profession	Student	74	34.42
	Service	39	18.14
	Business	64	29.77
	Housewife	21	9.77
	Professionals	17	7.91
Annual Income	Less than 5k	56	26.05
	5k - 10k	19	8.84
	10k - 15k	9	4.19
	15k - 20k	8	3.72
	20k - 25k	19	8.84
	25k - 30k	33	15.35
	More than 30k	71	33.02
Internet Proficiency	Novice	11	5.12
	Intermediate	100	46.51
	Advanced	104	48.37

Source: Survey

Table 3: Reliability Analysis-Scale (ALPHA)

Practices/Services	Number of Cases	Number of Items	Alpha Value
Digital Payment Mode	215	7	0.655

Table 4: Computation of ANOVA

	Prefer digital payment or not	
	F	Sig value/ p-value
Gender	0.133	0.716
Age	11.012	0.001
Education	65.769	0.000
Profession	27.782	0.000
Income	50.881	0.000
Internet Literacy	4.524	0.035

Source: Survey

H06There is no significant impact of income level of respondents The p-value of 'Income' is less than the level of significance, i.e., $0.000 < 0.05$.

Hence we reject our null hypothesis and can conclude that there is a significant impact of income of respondents on selection of mode of payments.

11.Frequency Analysis

To find out the respondent's perception and the overall satisfaction, frequency analysis has been carried. The result is presented in Table 5. Excellent and very good responses are an agreement to the statement which leads to positive perception and indicates satisfaction of respondents and average and poor is the negative agreement which indicates negative perception and indicates no satisfaction. Neutral responses neither support nor oppose the attribute.

The above table depicts that none of the respondents is neutral about the factors or the attributes which show their perception conformity for making payments online.Most of the respondents have trust and secure about making online payments. Along with this, they perceive that modern ways of making payments are superior and one can reap benefits over traditional mode of payments.

Also, they believe that making payments online is more convenient and they will pay digitally if they have to choose between cash and online payment.Most of the respondents have trust and secure about making online payments. Along with this, they perceive that modern ways of making payments are superior and one can reap benefits over traditional mode of payments. Also, they believe that making payments online is more convenient and they will pay digitally if they have to choose between cash and online payment.

Conclusion

The present study has attempted to understand customer perception regarding digital payment. It was found that demographic factors except gender have some impact on the adoption of the digital payment. Anova computation supported this finding as a significant difference is perceived by the respondents based on age, profession, internet literacy, education, and annual income. It was only gender of the respondents where signification difference is not perceived by the respondents. It indicates that the adoption of digital payment is influenced by all the demographic factors except for gender. If a person is well educated and is an internet savvy, he or she will be inclined to use the digital payment mode. It was also found that in the areas/region where the education level is high such as Delhi NCR and other metropolitan areas, the possibility of acceptance of digital payment is much higher. The growth of users of smartphones and internet penetration in such areas also facilitated the adoption of digital payment.

Table 5: Frequency Analysis of Respondent's Perception

Factor	Excellent	Very Good	Good	Average	Poor
Trust	78	92	0	36	9
Security	62	81	0	67	5
Benefits	90	74	0	45	6
Convenience	74	89	0	49	3
Availability	76	84	0	52	3

Source: Survey

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