



A Study on the Role of Demographic Variables on Online Payment in Delhi NCR

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Abstract

The first part discusses the introduction of the topic, followed by the different types of online payments. The research discusses the present condition of e-commerce, and the online payment mechanisms used in Delhi NCR. The study segment employs a questionnaire survey to investigate several types of client attitudes concerning online payments. The questionnaire was filled out by 50 respondents from Delhi NCR. The statistical test used was ANOVA. The main objectives of the study were to understand whether there is a difference between respondents' gender & the frequency of online payments, the pros & cons of online payments & challenges of online payments. Also, the researcher tries to understand whether there is difference between respondents' age & the frequency of online payments, the pros & cons of online payments & challenges of online payments. The findings concluded that there is no significant association between the gender of the respondent & other parameters, whereas, in the case of the age of the respondent, a significant association has been seen.

1. Introduction:

Most payments are made these days through internet channels using mobile devices equipped with electronic wallets called E-Wallets. The idea of money has evolved significantly from the barter system to banknotes. Today, paper money is quickly being replaced by its digital counterpart. With even roadside merchants accepting E-Wallet payments, the demonetization push has immensely helped e-Wallets.

Leading E-Wallets companies have reported anomalous usage, and by 2020, the market is expected to reach \$6 billion. The level of satisfaction offered by these E-Wallets is comparable to that of conventional plastic cards. To be utilized to make payments, these wallets must be connected to the user's bank account. It might be referred to as a pre-

paid account where a user can store money to use for upcoming online transactions.

Most e-wallets have password protection, which helps customers keep their money secure in the wallets. E-Wallets are used for a variety of transactions, including paying for groceries, online shopping, buying tickets, and more. Compared to transactions made through bank accounts, e-Wallets are thought to be a faster method of conducting digital transactions. The usage of electronic wallets, which securely store all the customers' payment information, reduces the need to carry traditional wallets.

E-Wallets' two units are software and information. The former component provides data security and encryption while storing personal information. The latter component is the understanding of the information that the user provides, such as

name, address, payment method, payment amount, debit/credit card information, etc. Owners of E-Wallets lose part of their privacy even though they are intended to be more secure because traditional wallets do not record our purchases. They don't keep records of our shopping preferences. E-Wallets do keep track of your purchases. The Indian public has been made aware of the use of electronic wallets. However, it can be said that only those who fall into the younger age bracket (19-35 Years) are more knowledgeable about and driven to utilize these E-Wallets. These people are aware of the benefits of electronic wallets. The trust and security concerns are one of the main reasons why consumers don't use e-wallets. Because of the rising number of cybercrimes, people are not persuaded to use e-wallets. People believe that these E-Wallets are more prone to frauds with security and trust difficulties because they need you to link your bank account or transfer money from your bank account to the E-Wallet. The legal requirements one must satisfy, such as the KYC, before using these E-wallets was also brought up.

Furthermore, online payment systems are critical in e-commerce. E-commerce businesses employ paperless monetary transactions using online payment systems, which have changed business procedures by decreasing paperwork, transaction expenses, and labour costs. Electronic commerce helps a company organization increase its market reach since it is more user-friendly and takes less time than manual processing. During the past decade, online payment systems matured and acquired a high degree of protection, confidentiality, anonymity, and convenience.

1.1. E-commerce

E-commerce is the purchasing and selling of goods and services through the Internet. The first is the communication component, which involves transmitting data, products, services, or payment via electronic means. Second, business process viewpoint refers to the use of technology to automate business processes and workflows.

1.2. Ecommerce in India

In recent years, India has seen an increase in internet and smartphone usage. The number of internet connections expanded dramatically to 830 million in 2021, thanks to the 'Digital India' cam-

paign. 55% of all internet connections were in metropolitan areas, with 97% of those connections being wireless. The smartphone market has grown rapidly and is anticipated to reach 1 billion by 2026. This has aided India's digital economy, which is anticipated to reach \$1 trillion by 2030. This quick increase in internet users and smartphone penetration, together with growing revenues, has aided the expansion of India's e-commerce business. India's e-commerce industry has altered the way business is done in the country, opening up new markets for business-to-business (B2B), direct-to-consumer (D2C), consumer-to-consumer (C2C), and consumer-to-business (C2B) transactions (C2B). In recent years, major areas such as D2C and B2B have seen tremendous development. The D2C industry in India is estimated to reach US\$ 60 billion by FY27. The whole e-commerce market is predicted to reach US\$ 350 billion by 2030, with a 21.5% increase in 2022 to reach US\$ 74.8 billion.

1.3. Online payment methods

1. **RazorPay:** RazorPay is one of India's leading payment gateway companies. The firm was established in 2014, and it already has over 800,000 consumers that utilize the Razorpay payment platform.

2. **PayPal:** It is the most widely used third-party internet payment system. PayPal enables any organization or individual with an email address to send money online securely, conveniently, and efficiently. To develop a real-time payment solution, the network is built on an existing bank account and a credit card.

3. **Google Wallet:** Google Wallet is a private and secure digital wallet that allows to quickly access payment cards, passes, tickets, keys, or IDs that have been saved on it. Google Pay is a convenient way to pay for purchases made online.

4. **Paytm:** Paytm (acronym for "pay through mobile") is a digital payments and financial services firm based in India. A Paytm wallet may be used to make online and offline payments such as utility bill payments, smartphone recharge, subscription plans, payments at Kirana stores, mother dairy, and other services.

5. **Net Banking:** Internet banking is a service provided by banks and financial organisations that allows clients to access banking services through the internet. It is also known as online banking, e-

banking, or Net Banking. Internet banking provides online access to banking services.

2. Literature Review:

(Ligon et al.) described how E-Wallets can be used for a variety of things, including bill payment, phone recharges, online shopping, and even the purchase of shares these days. The user must link their debit/credit card or bank account with any application that supports E-Wallet platforms. The report also evaluated the benefits and drawbacks of utilizing electronic wallets and concluded that these platforms make it simple and quick to make payments and purchase. (Batra and Kalra) investigated how payments can be digitized to support the nation's economic development. The author examined how users responded to the use of electronic wallets. It was determined that there has been a significant growth in the number of people who trust and use e-wallets. Although the usage of E-wallet payments and other transactions has made users less burdensome, the subject of "security and trust" is still open, and much work needs to be done in this area. (Shukla) underlined that as technology and consumer power have advanced, smart phones have grown in popularity among consumers. As a result, using the internet and the web for various purposes has never been simpler. These digital channels have developed into a highly quick and simple method of money transfer. The numerous government platforms and programmes deserve credit for helping to advance the idea of a digital India. By offering more bandwidth, telecom providers have also significantly contributed. (Kalyani) discussed the applications, benefits, and drawbacks of virtual wallets, particularly in India. He also said that there should be an immediate increase in the use of e-wallets. He also clarified several problems that the E-Wallet companies were having. There was also discussion of other topics such user acceptability, market penetration, smart phone challenges, and data security. (Shin) looked at how trust, social impact, and security affected customer acceptance of e-wallets. The opinions of people toward the use of eWallets were predicted using a SEM model. It was determined that security and trust elements have a major impact on people's attitudes and views. Researchers (Saraswat and Mehta) conducted a study on the mobile phone providers of new

technologies for online transactions. It concentrated on electronic transactions, including what problems are there, how to solve them, and the adoption and acceptance of E-payment or M-payment services. It has been discovered that the main problems with the use of E-Wallets are trust and security.

2.1. Objectives:

The objectives of the study are as follows:

1. To understand whether there is any significant difference between the gender of the respondents & the frequency of online payments, pros & cons of online payments & challenges of online payments.
2. To understand whether there is any significant difference between the age of the respondents & the frequency of online payments, pros & cons of online payments & challenges of online payments.

2.2. Hypothesis:

Hypothesis 1H₀: There is no significant association between the gender of the respondent in the context of their frequency of online payments, the pros & cons of online payments & challenges of online payments.

Hypothesis 2H₀: There is no significant association between different age groups in context to their frequency of online payments, the pros & cons of online payments & challenges of online payments.

3. Data Analysis:

Demographic profiling: Data was collected from 50 respondents of Delhi NCR region. It is seen that out of the total population, 56% were males and remaining 44% were females. As far as the age groups are considered, 12% of respondents fall under the first category of 18 to 25 years, 16% fall under the second category of 25 to 35 years, 28% fall under the third category of 35 to 45 years, 26% fall under the fourth category of 46 to 60 years & remaining 18% are from the age group of above 60 years.

Table 1: Gender vs Frequency

		Frequency	%
Gender	Male	28	56%
	Female	22	44%
Age	18-25 years	6	12%
	25-35 years	8	16%
	35-45 years	14	28%
	46-60 years	13	26%
	More than 60 years	9	18%

Table 2: Study the association of Gender with different parameters

		Sum of Squares	df	Mean Square	F	Sig.
Do you use online payment	Between Groups	.178	1	.178	1.304	.259
	Within Groups	6.542	48	.136		
	Total	6.720	49			
Which payment system do you prefer the most	Between Groups	4.445	1	4.445	2.616	.112
	Within Groups	81.555	48	1.699		
	Total	86.000	49			
How much do you spend via online payment monthly	Between Groups	2.961	1	2.961	2.018	.162
	Within Groups	70.419	48	1.467		
	Total	73.380	49			
Pros of online payment	Between Groups	.001	1	.001	.001	.979
	Within Groups	82.419	48	1.717		
	Total	82.420	49			
Cons of digital payment	Between Groups	.532	1	.532	.399	.530
	Within Groups	63.948	48	1.332		
	Total	64.480	49			
Challenges when adopting online payment	Between Groups	.916	1	.916	1.425	.238
	Within Groups	30.864	48	.643		
	Total	31.780	49			

Table 3: Study the association of age with different parameters

		Sum of Squares	df	Mean Square	F	Sig.
Do you use online payment	Between Groups	.500	4	.125	.904	.470
	Within Groups	6.220	45	.138		
	Total	6.720	49			
Which payment system do you prefer the most	Between Groups	25.474	4	6.369	4.735	.003
	Within Groups	60.526	45	1.345		
	Total	86.000	49			
How much do you spend via online payment monthly	Between Groups	15.467	4	3.867	3.005	.028
	Within Groups	57.913	45	1.287		
	Total	73.380	49			
Pros of online payment	Between Groups	16.148	4	4.037	2.741	.040
	Within Groups	66.272	45	1.473		
	Total	82.420	49			
Cons of digital payment	Between Groups	19.982	4	4.995	5.052	.002
	Within Groups	44.498	45	.989		
	Total	64.480	49			
Challenges when adopting online payment	Between Groups	14.809	4	3.702	9.817	.000
	Within Groups	16.971	45	.377		
	Total	31.780	49			

3.1. Testing of hypothesis using ANOVA

The collection of statistical models and related measurement methods known as analysis of variance (ANOVA) are used to evaluate differences between group means in single research (such as "variation among and between groups"). When the p-value is less than the significance threshold, the results are statistically significant, and the null hypothesis should be rejected, according to the ANOVA test.

As per the analyses of the results, it has been observed that there is no significant difference between the gender of the respondents & the frequency of online payments, the pros & cons of

online payments & challenges of online payments. Since the p-value in all the cases is greater than the significance level of 0.05, and when the $P > 0.05$ then null hypothesis is accepted.

In the table, it is seen that the preference for the payment system, the amount spent online, the pros & cons of digital payments & the challenges faced while adopting digital payments have a significant association with the age of the respondent. In all the cases, it is observed the p-value is less than the significance value of 0.05, which means the alternative hypothesis to be accepted and the null hypothesis is to be rejected.

4. Conclusion:

The survey's main goal was to discover the present situation, obstacles, and upcoming expectations of online payment systems in Delhi NCR. The results show that approximately 82% of the respondents have previous experience using online payments and people are well aware. All respondents believe that convenience and quick payment process are the two primary reasons they select online payment. The primary obstacles of online payment include malware threats and financial concerns. It is critical to have a safe, dependable, and trustworthy online payment environment. With the use of ANOVA, it has been observed that there is no significant difference between the gender of the respondents & the frequency of online payments, the pros & cons of online payments & challenges of online payments. Further, it is observed that the preference for the payment system, the amount spent online, the pros & cons of digital payments & the challenges faced while adopting digital payments have a significant association with the age of the respondent

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