

# A Study of Indian Online Consumers Payment Behaviour

*Dr. Savita Maan*

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## Abstract

*Today's new payment methods are arising and penetrating in the Indian online market place. More payment options are available to the online consumer now in comparison to past. So, as the payment options are increasing, there is a need to identify the online consumer's payment behaviour. The present study explores Indian online shoppers' choices and preferences for payment methods and investigates the influence of demographics on the consumer's choice of certain payment method. With this attempt, primary data were collected through a self administered questionnaire and analysis was done. The study found that Indian online shoppers are majorly use cash on delivery payment option for the payment of their online purchases products even in this age of technology. The results also indicated that significant association existed between preferred payment method for online purchases and age and education level of the respondents.*

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**Keywords-** Payment Method, Demographics, Internet, Online shopping

## 1. Introduction

E-commerce provides a new linking between consumers and doing business. E-commerce enables the business firms to become virtual businesses. It allows the business to maintained personalized relationship with consumers (Wind et al., 2001). Over the some previous years, capitalists have invested significantly in e-commerce market of India, new players also come forward which help in developed of e-commerce market and resulting into huge opportunity for companies in India (Forrester Research, 2012). One of the fastest growing sectors of e-commerce is online retailing. Online retailing has provided a great alternative in spite of traditional brick and mortar stores. It provides a number of advantages such as high transaction speed, number of selections and different

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<sup>1</sup> Amity Business School, Amity University, Gurugram, Haryana (India)

prices, convenience, time and space neutrality, fun and enjoyment (Nayyar Ruchi et al., 2011). Online shopping makes shopping experience better by increasing area of shopping, comfort level, and products variety. Online shopping is also helpful for the customers in widening their imagination towards products and motivating them to look for varieties and satisfying their fun and pleasure needs (Kim Youn Kyung, 2004). According to ASSOCHAM Resurgent India Report, 2017 about 69 million customers in India purchased online in 2016 which is to reach 100 million by 2017 with e-retail market increasing 65% on year in 2018, because of the rise of digital platforms, better infrastructure, logistics, broadband and internet-ready devices to fuel the demand in e-commerce. By the end of 2018, e-retail is expected to touch US \$17.52 billion. Digital transformation and payments, reduction in cash transactions, improved net banking facilities and demonetization provide growth opportunities for the Indian e-commerce sector. The consumer goods market has seen steady and robust growth in recent years. India has tech savvy and young population, with 40% of the population of 1.25 billion between 25 and 54, 18% between 15 and 24, and 28% aged below 15. There has been tremendous rise in online shoppers. Growing internet, young population, rising middle class provides opportunity for business and enterprise. In line with global trends, access to the internet and digital medium is improving. Internet penetration in India is currently 31%. According to Telecom Regulatory Authority of India (TRAI) Report (2017) there were 391.50 million internet subscribers in India as of 31 December 2016. The number of Internet users in India is to reach around 460 million in 2017; the rise of around 4-8% from 432 million in 2016 (The Internet and Mobile Association of India (IAMAI) and market research IMRB Report, 2018). 730 million internet users are anticipated in the country by 2020 (NASSCOM, 2016 & Akamai Report, 2017). According to CRISIL Report (2014) India's online retail industry in terms of size is only 1 percent of overall retail (organized + unorganized) in the country. So, the online market is the most potential market in India. In India, where now a day's smart phones and tablets are available at very reasonable prices and 3G & 4G broadband is easily accessible. So, online consumer strength is rising up unexpectedly. According to Google and Forrester Consulting Report (2016), India's online shopping market to reach 15 billion dollars in 2016, with more than 50 million new consumers from the tier 1 and tier 2 cities. Indian

online retailers like Amazon, Flipkart and Snapdeal are providing heavy discounts/offers to attract online shoppers.

## **2. Literature Review**

In India consumers preferred cash on delivery most for the payment of their online purchases followed by debit card and least preferred mode is credit card. Moreover it is projected that in coming year mobile phones will become the preferred device for online shopping among online shoppers in India (ASSOCHAM-Resurgent Study, 2017). Cash on delivery payment method is preferred in those countries where penetration of credit card is low as well as trust is also low (Nielsen Report, 2016). Bellman et al., (1999) found out the different reasons of consumers for buying products through online shopping. They examined that consumers' demographic variables like age, income and education level had modest influence on consumers' decision of online shopping but previous shopping behaviour and experience had major impact on future intention to online shopping. Asian consumer shopped more through smart phone in comparison to others and this was more evident in China because ample of consumers use mobile apps for the payment of online purchased products in China (KPMG Global Online Consumer Report, 2017). Kotler and Armstrong (2000) stated that consumers buying behaviour and their preference, selection and choice were furthermore effected by chief four mental or psychological factors namely consumers' perception, motivation, consumers learning, and consumers' attitude. Teoh et.al (2013) identified various factors which impact the perception of the customers regarding electronic payment in Malaysia. In Malaysia online payments methods were majorly used by consumers for payment. The study also revealed that ease of use, benefits and self-efficacy factors were significantly showed association with shopper's perception towards e-payment. Additionally, two factors namely security and trust showed no significantly difference with consumers' perception toward e-payment. Abid (2016) stated that electronic payment system in India changed the customer s traditional way of making payment. He found that various efforts were made by RBI to increase the awareness and acceptance of e-payment methods in India. Sardar Ramesh (2016) explored that mobile-wallets is the major contributor in promoting and increasing electronic payment methods. He identified significant association between demographic variable gender and overall usage of mobile payment. Sumathy & KP (2017) explored that there is need to move towards cashless payment methods from cash

payment. He stated that cashless payment methods provides various benefits to society and marketers also as it decrease the cost of cash management, tracking of transactions, fraud cases, tax avoidance etc. Moreover, improves the financial inclusion of the country.

### **3. Objective of the Study**

The objectives of the present study are following

- To identify the online consumers payment choices and preferences
- To explore the impact of demographic on consumers payment choices.

### **4. Research Methodology**

#### *4.1 Data Collection and Sampling*

In order to achieve the objectives of the research, a questionnaire has been framed and distributed to collect response. Judgemental sampling method has been applied to collect the sample. Total 439 online shoppers were participated in the research. The data has been analyzed by applying various statistical techniques like cross tabulation, chi square etc.

#### *4.2 Hypothesis for the Study*

The following two null hypotheses have been framed and tested on the bases of literature review to study the impact of demographic variables age and education on online consumers preferred choice of payment for their online purchases.

*H<sub>01</sub>: There is no significant association exist between preferred payment method of online purchases and age of respondents*

*H<sub>02</sub>: There is no significant association exist between preferred payment method of online purchases and education level of respondents.*

### **5. Results and Discussion**

#### *5.1 Consumer's Demographics*

The data was collected from Haryana and Delhi NCR region of India and sample was dominated by the respondents of age group 18-35 years. Only 24 percent of respondents were found above 35 years in the study. Moreover sample represents that majority of the respondents were well educated who had graduation and higher degree (87.6 percent).

#### *5.2 Online Purchase Frequency of Consumers*

To identify the online consumers payment choices and preferences analysis was done in SPSS-21 version. Frequency distribution and percentage were calculated and illustrated in table-1. Result showed that around 61.3 percent of online shopper's preferred to use cash on delivery for online payments, 21 percent prefer debit cards, 9.1 percent like credit cards to pay and only 8.7 percent go for net banking as a payment option for online shopping.

**Table 1: Online Consumers Payment Choices and Preferences**

Payment Methods	No. of Respondents	Percentage of Respondents
Credit Card	40	9.1
Debit Card	92	21.0
Net Banking	38	8.7
Cash on delivery	269	61.3
Total	439	100.0

Source: Primary Data

Thus, from the table-1, it can be concluded that online shoppers overwhelmingly prefer to pay for their purchases by cash on delivery. Cash on delivery was evidently the most preferred and used payment method for online purchases among the Indian shopper. After cash on delivery, debit card is the second dominant method for online payment.

### 5.3 Demographic Differences

The demographic difference of age and education level on online consumer's payment choice for their online purchases has been identified with the help of cross-tabulation and chi-square tests.

*Impact of Demographic Variable Age:* In the first step of analysis, Fisher's exact test was applied as the Chi-square ( $\chi^2$ ) test assumption of every cell must contain expected frequency greater than 5 was not met. Hence, Fisher's exact test was applied to know the significant difference between the preferred payment method and age of respondents.

**Table-2: Chi-Square Test across Age of Respondents**

	Value	Exact Sig.(2-sided)	Approx. Sig
Fishers Exact Value	0.000	0.000*	
Cramer's V	0.101		0.329
N of Valid Cases	439		

Source: Primary Data, \*Significant at 5%

Table-2 shows that there was a significant association between the preferred online shopping payment method and age of respondents. Hence null hypothesis was not accepted as Fisher's exact value =.000,  $p \leq 0.05$ . The table also shows the value of Cramer's V (table is 4x5) for effect size analysis between variable age and preferred online shopping payment method. The Cramer's V value came out to be 0.101 which was less than 0.5 shows that the strength of association was weak i.e. low degree of association existed between preferred payment method and age of respondents. Hence, results shows that association exist between age of online shoppers and preferred payment method But to know which age group was more influential and to analyze detailed association between preferred payment method for online purchases and age of respondents cross tabulation was done.

**Table 3: Cross Tabulation for Preferred Payment Method across Age**

Preferred Payment Method		Age of respondent					Total
		18-24	25-30	31-35	36-40	above 40	
<b>Credit Card</b>	<b>Frequency</b>	13	11	12	1	3	40
	<b>Row %</b>	32.5%	27.5%	30.0%	2.5%	7.5%	100.0%
	<b>Column %</b>	12.3%	8.7%	11.8%	1.6%	6.8%	9.1%
<b>Debit Card</b>	<b>Frequency</b>	20	30	23	14	5	92
	<b>Row %</b>	21.7%	32.6%	25.0%	15.2%	5.4%	100.0%
	<b>Column %</b>	18.9%	23.8%	22.5%	23.0%	11.4%	21.0%
<b>Net Banking</b>	<b>Frequency</b>	8	11	12	4	3	38
	<b>Row %</b>	21.1%	28.9%	31.6%	10.5%	7.9%	100.0%
	<b>Column %</b>	7.5%	8.7%	11.8%	6.6%	6.8%	8.7%
<b>Cash on Delivery</b>	<b>Frequency</b>	65	74	55	42	33	269
	<b>Row %</b>	24.2%	27.5%	20.4%	15.6%	12.3%	100.0%
	<b>Column %</b>	61.3%	58.7%	53.9%	68.9%	75.0%	61.3%
<b>Total</b>	<b>Frequency</b>	106	126	102	61	44	439
	<b>Row %</b>	24.1%	28.7%	23.2%	13.9%	10.0%	100.0%
	<b>Column %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Data

Table-3 shows that cash on delivery was the most preferred method of payment of all age group respondents followed by debit card and credit card. But row-wise analysis shows that cash on delivery method was most preferred by young age group respondents (18-30 year) in comparison to other age group respondents. Moreover, the credit card was most preferred by 18-24 age group respondents in comparison to others. On other hand, debit card was most preferred by 25-30 age group respondents and net banking was most preferred by 31-35 age group respondents. It can be concluded that cash on delivery payment method was the most popular payment method for online purchases and most

used by young age group respondents in comparison to others similarly both credit card and debit card also most preferred by young age group respondents.

*Impact of Demographic Variable Education Level:* Further analysis was done to know the variation in preferred online payment method across the education level of the respondents. The chi-square test was not applicable as the expected count value of the four cells was less than 5 and the minimum expected count was 3.81. Hence, Fisher's exact test was applied and shown in table-4 to know the significant association between the most preferred online shopping payment method and age of respondents.

**Table-4: Chi-Square Test across Education of Respondents**

	Value	Exact Sig.(2-sided)	Approx. Sig
<b>Fishers Exact Value</b>	0.000	0.000*	
<b>Cramer's V</b>	0.064		0.797
<b>N of Valid Cases</b>	439		

Source: Primary Data, \*Significant at 5%

The result shows that there was a significant association between the preferred payment method and education level of respondents. Hence null hypothesis was not accepted, Fisher's exact value = 0.000,  $p \leq 0.05$ . The table also shows the value of Cramer's V (table is 4x4) which represents the effect size of variable education level on the preferred method of online payment. The Cramer's V value came out to be 0.064 which was less than 0.5 showing that the strength of association was weak i.e. low degree of association existed between preferred payment method for online purchases and education level of respondents. Moreover, to know which education level group was more influential and to analyze detailed association between preferred payment method for online purchases and education level of respondents cross tabulation was done.

Table-5 shows cross tabulation for preferred online shopping payment method across education level of the respondents. According to the table, cash on delivery was found to be most preferred method of online payment, followed by debit card, credit card, and net banking across all categories of education level. Row-wise analysis shows that cash on delivery (46.8 percent), credit card (40 percent) and debit card (44.6 percent) were found to be most preferred online payment method of post graduated online shoppers whereas net banking was most preferred of graduated respondents (39.3 percent) in comparison to another education level of respondents. So, it can conclude that cash on delivery was the preferred mode of online payment of all education level respondents. Moreover, both the

debit card and credit card were preferred by post graduated online shoppers for their online shopping payments

**Table 5: Cross Tabulation for Preferred Payment Method across Education**

Preferred Payment Method		Education of Respondents				Total
		12th	Graduation	Post Graduation	Others	
<b>Credit Card</b>	Frequency	7	13	16	4	40
	Row %	17.5%	32.5%	40.0%	10.0%	100.0%
	Column %	13.0%	9.0%	8.2%	9.1%	9.1%
<b>Debit Card</b>	Frequency	12	28	41	11	92
	Row %	13.0%	30.4%	44.6%	12.0%	100.0%
	Column %	22.2%	19.3%	20.9%	25.0%	21.0%
<b>Net Banking</b>	Frequency	4	15	13	6	38
	Row %	10.5%	39.5%	34.2%	15.8%	100.0%
	Column %	7.4%	10.3%	6.6%	13.6%	8.7%
<b>Cash on Delivery</b>	Frequency	31	89	126	23	269
	Row %	11.5%	33.1%	46.8%	8.6%	100.0%
	Column %	57.4%	61.4%	64.3%	52.3%	61.3%
<b>Total</b>	Frequency	54	145	196	44	439
	Row %	12.3%	33.0%	44.6%	10.0%	100.0%
	Column %	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Data

So, it can be concluded that consumers preferred payment method for online purchase frequency of consumers was varying with demographic variables age and education level. In other words there was a significant association existed between preferred payment method and age and educational level of respondents.

**Exhibit 1: Summary of Hypothesis for Preferred Payment Method Online Shoppers**

Hypothesis	Accepted/Rejected
<i>H<sub>01</sub>. There is no significant association exist between preferred payment method of online purchases and age of respondents</i>	Rejected
<i>H<sub>02</sub>- There is no significant association exist between preferred payment method of online purchases and education level of respondents</i>	Rejected

## 6. Conclusion and Implications

Today as the technological advancement and penetration of internet increasing in India, more and more online retailers are entering into the online market and trying to take hold on the market share and attract consumers. So, they need more and more information about online consumers, their shopping behaviour, their payment behaviour etc.

Therefore, this paper explored the online consumer's online consumer's payment choices and preferences for their online product purchases and identified the impact of demographic on consumer's payment choices. The results revealed that cash on delivery (61.3 percent) was evidently the most preferred and used online payment method among consumers. After cash on delivery, debit card (21 percent) was the second dominant method for online payment followed by credit card and net banking. It means that Indian online shoppers are majorly use cash on delivery payment option for the payment of their online purchases products even in this age of technology. The results also indicated that significant association existed between preferred payment method for online purchases and age and education level of the respondents. Consumer's payment method choices were varying significantly across age and education level. Consumers of all age groups and education level preferred cash on delivery most for payment of their online purchases. However, cash on delivery among all age group and education level respondents preferred most by younger age group (18-30) and post graduated respondents. Debit card, and credit card were also preferred most by post graduated and young respondents of age group 18-30 years in comparison to others.

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