



Impact of Demographic Factors on Payment Method Chosen by Indian Consumer using ANOVA

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ABSTRACT

Online shopping is a current wonder in the field of E-Business and is unquestionably going to be the eventual fate of shopping in the world. The vast majority of the organizations are running their online portals to offer their product/services online. In spite of the fact that internet shopping is exceptionally normal outside India, its development in Indian Market, which is a vast and vital buyer showcase, is still not in accordance with the worldwide market. The potential development of online shopping has set off directing a study on online shopping in India. The primary objective of the current study is to understand the behavior of Indian online consumer and find out opinion about online shopping to identifying what many factors Indian online consumer takes into consideration when purchasing products online. The data was collected through Questionnaires. Sample sizes of 1014 respondents are taken for the collection of the data. In this paper authors try to find the impact of demographic factor Gender and occupation on various payment method pick by Indian consumer. Authors apply Analysis of Variance (ANOVA) method to test hypothesis. Tool used to do analysis was SPSS. From the results of analysis authors conclude that the demographic factor does impact on payment method pick by consumer in India at 99% significance.

Keywords: Online Shopping, Survey, Analysis, Customer Behavior

I. INTRODUCTION

Online shopping is the process whereby consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. It is a form of electronic commerce. Nothing is predictable in India except change. Currently the retail industry in India is accelerating. India is excited to grow to be a most important player in the retail market. Also India with a high on cross culture factor, it allows different companies bringing in variety of products Targeting different consumer segments [4]. According to the Global Retail Development Index 2016, India ranks second among the top 30 emerging markets for retail [2]. The implementation and introduction of internet technologies has created new market for manufacturers and service providers it also has provided new arena for

innovative marketing strategies by the professionals. There are different reasons of moving the customers purchasing pattern towards online retail shops. The other prominent names for web based shopping are e-shop, web shop, and web-store and so on. These days' Mobile commerce is also one of the mainstream methods for shopping. The facilities of various discount scheme and coupon are also fascinating the customers in online shopping. From the past few years, online shopping is the prevalent way of doing dealings in the field of E-Business and is unquestionably going to be the future of shopping in the human race [5]. Because of wide communication network e-commerce has become the new mediator between the companies/manufacturers and their customers. The boost in use of internet by the customers in younger age bracket in India has given a promising viewpoint to online retailers. Earlier the

Indian customers were more attracted towards electronic devices and cell phones for online shopping but now the products like lifestyle, watches, apparels, perfumes, and beauty products are also in high demand through the medium of online shopping. The market is also developing for books, jewellery, home appliances and kitchen appliances etc.

II. LITERATURE REVIEW

Sultan and Henrichs (2012) [6] in his study concluded that the consumer's willingness to and preference for adopting the Internet as his or her shopping medium was also positively related to income, household size, and innovativeness. Vijay, Sai. T. & Balaji, M. S. (May 2012) [7], revealed that Consumers, all over the world, are increasingly shifting from the crowded stores to the one-click online shopping format. However, in spite of the convenience offered, online shopping is far from being the most preferred form of shopping in India. A survey among 150 internet users, including both users and non-users of online shopping, was carried out to understand why some purchase online while others do not. The results suggested that convenience and saving of time drive Indian consumers to shop online; while security and privacy concerns dissuade them from doing so.

The work of Kim and Park (2005) [8] using U.S. samples suggests that their positive attitudes as well as willingness to search for pre-purchase information leads to a strong likelihood that they will buy online. Online shoppers are required to have computer skills in order to use the Internet for shopping. Hence, those who are not comfortable with using the computer, will likely do their shopping at the traditional store, modern shop, or discount store because it will be faster shopping there than in the Internet shop [9][10].

Maignan and Lukas's research (1997) and Rowley (2000) studied that the financial risks had been cited as a main reason to stop internet shopping and security had become a major concern both in online transaction relationships.

Researcher examines the relationship among demographics, personal characteristics, and attitudes towards online shopping. These authors find that people who have a more wired lifestyle. And who are more time constrained tends to buy online more frequently, i.e., those who use the Internet as a routine tool and/or those who are more time starved prefer shopping on the Internet [1][3]. There are various statistical methods like

Chi-square test, ANOVA (one way and two way) and correlation, used to find the association or impact of one parameter on other [11][12].

III. RESEARCH HYPOTHESIS

H1: Demographic Factors of Indian consumer Significantly impact the payment method picked by consumer in online shopping

H1.1 Gender of Indian consumer significantly impact the * payment method.

H1.2 Occupation of Indian consumer significantly impact * payment method

*- credit card, debit card, net banking, cash on delivery, E-wallets.

IV. DISCREPTION OF SURVEY

A. Method of Data collection

For primary data collection author used online data collection method; Google forms.

A. Sample size

Sample size used for this study is 1014. As the scope of study is limited to only one city of Gujarat, India, This sample size is appropriate for study.

B. Nature of questionnaire

To fulfil the objectives of study various multiple choice questions was used in the questionnaire. The complexity of questions is defined as per targeted users education and willingness to submit response properly.

C. Tools & technique used for study

In data analysis and interpretation method of "Descriptive Statistics" is used to analyse the data with the help SPSS (Statistical Package for the Social Science) Tool. The technique used to analyse data is one way analysis of variance (ANOVA).

V. FINDINGS OF SURVEY

The following tables has broadly analysed for the survey questions. The data collected has given some interesting findings. It has provided the information about the buying behaviour of the consumers through online mode. Questionnaire designed in manner to collect data of customer perspective for online shopping. The findings

can be useful for taking strategic marketing decisions to capture the huge Indian retail market.

TABLE 1. CROSS TABULATION OF GENDER AND AGE

Gender * Age Cross tabulation							
Count							
		Age					Total
		Below 18	18-25	26-30	31-50	Above 50	
Gender	Male	16	85	227	174	5	507
	Female	4	71	197	228	7	507
Total		20	156	424	402	12	1014

- 1) Cross Tabulation is representing that in male there are 5 age groups in which below 18 there are 16 males, 18-25 age group there are 85 males, 26-30 age group there are 227 males, 31-50 age group there are 174 males and above 50 there are 5 males so total numbers of male is 507.
- 2) Cross Tabulation is representing that in female there are 5 age groups in which below 18 there are 4 females, 18-25 age group there are 71 females, 26-30 age group there are 197 females, 31-50 age group there are 228 females and above 50 there are 7 females so total numbers of female is 507.

TABLE 3. CROSS TABULATION OF OCCUPATION AND FREQUENCY OF PURCHASE

Occupation * How frequently do you purchase products online? Cross tabulation					
Count					
		How frequently do you purchase products online?			Total
		Weekly	Monthly	Yearly	
Occupation	Unemployed	31	39	49	119
	Employed	46	673	32	751
	Self-Employed	24	96	24	144
Total		101	808	105	1014

- 1) Cross Tabulation of occupation and frequency of purchase indicates that the 31 weekly purchases, 39 monthly purchases and 49 yearly purchases were totally 119 purchase frequencies by unemployed people.

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- 2) Cross Tabulation of occupation and frequency of purchase is indicating that the 46 weekly purchases, 673 monthly purchases and 32 yearly purchases were totally 751 purchase frequencies by employed people.
- 3) Cross Tabulation of occupation and frequency of purchase is indicating that the 24 weekly purchases, 96 monthly purchases and 24 yearly purchases were totally 144 purchase frequency by self-employed people.

TABLE 3. SHOPPING ON INTERNET SAVES TIME

I think shopping on internet saves time				
		Frequency	Percent	Cumulative Percent
Valid	Strongly Disagree	13	1.3	1.3
	Disagree	18	1.8	3.1
	Neither Agree Nor Disagree	38	3.7	6.8
	Agree	114	11.2	18.0
	Strongly Agree	831	82.0	100.0
	Total	1014	100.0	

Shopping on internet save time was strongly agreed by 831 members out of 1014, it is equivalent to 82.0% of sample size.

TABLE 4. MORE DIFFICULT TO SHOP ON THE INTERNET

It is more difficult to shop on the internet				
		Frequency	Percent	Cumulative Percent
Valid	Strongly Disagree	48	4.7	4.7
	Disagree	752	74.2	78.9
	Neither Agree Nor Disagree	102	10.1	89.0
	Agree	52	5.1	94.1
	Strongly Agree	60	5.9	100.0
	Total	1014	100.0	

Shopping is more difficult on internet were disagree by 752 members out of 1014; it is equivalent to 74.2% of sample size.

TABLE 5. PRICES ARE LOWER THAN ACTUAL PRICE

I will prefer online shopping only if online prices are lower than actual price				
		Frequency	Percent	Cumulative Percent
Valid	Strongly Disagree	28	2.8	2.8
	Disagree	353	34.8	37.6
	Neither Agree Nor Disagree	52	5.1	42.7
	Agree	422	41.6	84.3
	Strongly Agree	159	15.7	100.0
	Total	1014	100.0	

Online prices are lower than actual price were agreed by 422 members out of 1014, it is equivalent to 41.6% of sample size.

TABLE 6. PAYING IN ADVANCE

I do not mind paying in advance for the products on the internet				
		Frequency	Percent	Cumulative Percent
Valid	Strongly Disagree	37	3.6	3.6
	Disagree	79	7.8	11.4
	Neither Agree Nor Disagree	67	6.6	18.0
	Agree	72	7.1	25.1
	Strongly Agree	759	74.9	100.0
	Total	1014	100.0	

I do not mind paying in advance for the products were strongly agreed by 759 members out of 1014; it is equivalent to 74.9% of sample size.

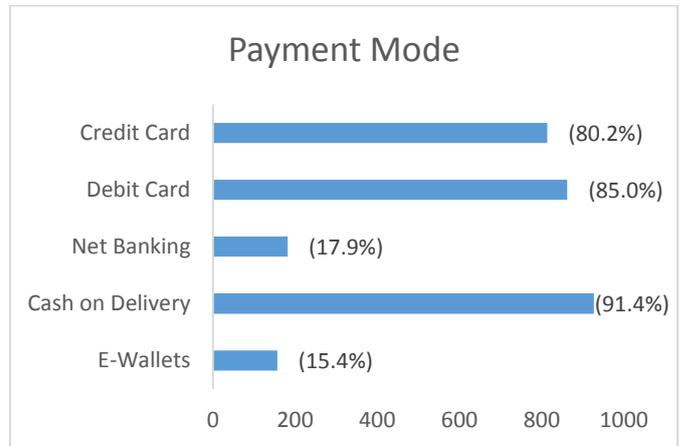


Figure 1. Payment Mode

From Figure 2 we highlight the following points:

- 1) 80.2% of sample size on online shopping out of 1014 members, 813 members were using credit card for payment.
- 2) 85.0% of sample size on online shopping out of 1014 members, 862 members were using debit Card for payment.
- 3) 17.9% of sample size on online shopping out of 1014 members, 181 members were using net banking for payment.
- 4) 91.4% of sample size on online shopping out of 1014 members, 927 members were using cash on delivery for payment.
- 5) 15.4% of sample size on online shopping out of 1014 members, 156 members were using e-wallets for payment.

VI. HYPOTHESIS TESTING

H1.1 Gender of Indian consumer significantly impact the * payment method.

TABLE 7. CONSUMER RESPONSE VARIATIONS FOR PAYMENT MODE*ACROSS GENDER

		Sum of Squares	df	Mean Square	F	Sig.
Credit Card	Between Groups	.009	1	.009	.056	.813
	Within Groups	161.148	1012	.159		
	Total	161.157	1013			
Debit Card	Between Groups	.773	1	.773	6.092	.014
	Within Groups	128.442	1012	.127		
	Total	129.215	1013			
Net Banking	Between Groups	1.823	1	1.823	12.565	.000
	Within Groups	146.868	1012	.145		
	Total	148.691	1013			
Cash on delivery	Between Groups	.829	1	.829	10.664	.001
	Within Groups	78.706	1012	.078		
	Total	79.536	1013			
E-Wallets	Between Groups	0.000	1	0.000	0.000	1.000
	Within Groups	132.000	1012	.130		
	Total	132.000	1013			

We here summarize the results of Table 7 in Table 8 to conclude the results.

TABLE 8. SUMMARIZE RESULTS OF ANOVA TABLE FOR PAYMENT MODE*ACROSS GENDER

ANOVA GENDER		
Dependent Variable	F	Sig.
Credit Card	0.056	0.813
Debit Card	6.092	0.014
Net Banking	12.565	0
Cash on delivery	10.664	0.001
E-Wallets	0	1

The results of table 8 shows that the Gender as one of the demographic factor of consumer does impact on payment method Credit card, Debit card, Net Banking, Cash on delivery. But Gender does not impact payment method E-wallets.

H1.2 Occupation of Indian consumer significantly impact * payment method

This hypothesis is used to show impact of consumer occupation on various payment method used by Indian consumer.

TABLE 9. CONSUMER RESPONSE VARIATIONS FOR PAYMENT MODE*ACROSS OCCUPATION

		Sum of Squares	df	Mean Square	F	Sig.
Credit Card	Between Groups	18.287	2	9.144	64.705	.000
	Within Groups	142.869	1011	.141		
	Total	161.157	1013			
Debit Card	Between Groups	21.652	2	10.826	101.757	.000
	Within Groups	107.563	1011	.106		
	Total	129.215	1013			
Net Banking	Between Groups	8.243	2	4.121	29.667	.000
	Within Groups	140.449	1011	.139		
	Total	148.691	1013			
Cash on delivery	Between Groups	.425	2	.213	2.716	.067
	Within Groups	79.110	1011	.078		
	Total	79.536	1013			
E-Wallets	Between Groups	.825	2	.413	3.180	.042
	Within Groups	131.175	1011	.130		
	Total	132.000	1013			

Here we summarize the results of Table 9 in Table 10 to conclude the ANOVA results.

TABLE 10. SUMMARIZED RESULTS OF ANOVA TABLE FOR PAYMENT MODE*ACROSS OCCUPATION

ANOVA OCCUPATION		
Dependent Variable	F	Sig.
Credit Card	64.705	0
Debit Card	101.757	0
Net Banking	29.667	0
Cash on delivery	2.716	0.067
E-Wallets	3.18	0.042

The results of table 10 shows that the occupation as one of the demographic factor of consumer does impact on payment method Credit card, Debit card, Net Banking, Cash on delivery and E-wallets.

VII. CONCLUSION

The overall results prove that the respondents have perceived online shopping in a positive manner. This clearly justifies the project growth of online shopping. The following major outcomes are derived from the survey based on questionnaire.

- 1) Males and females are equally participated in the survey. Where age group of major respondents is between 31-50.

- 2) Employed respondents shop very frequently and the frequency of doing shopping is on monthly basis.
- 3) Cloth and electronics are the highest demanding products by customers with 88% and 65% demand respectively.

Major respondents agree on the following points

- 1) Online shopping saves time.
- 2) Pay in advance is not an issue.
- 3) Arrangement of product in website is very important.

Online shopping organizations can apply the relevant variables and factors, identified from the research, to create their strategies and tactics. The organizations can prioritize the Consumer's requirements in online shopping environment. The results can also be used by various organizations to identify their target customer segments.

From the results of ANOVA table we conclude that the demographic factor Gender and Occupation does impact on payment method opted by consumer. It clearly shows that there is an effect of occupation and gender on payment method. In future we try to find out which occupation more affects various payment methods like Credit card, debit card, net banking and e-wallets.

VIII. REFERENCES

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