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**A STUDY ON RELATIONSHIP BETWEEN DEMOGRAPHIC  
CHARACTERISTICS AND PREFERENCE TO E-COMMERCE  
WITH RESPECT TO ONLINE SHOPPING IN PUNE CITY**

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**ABSTRACT**

*This study is undertaken with the purpose to understand the adaptability and preference of consumers to online shopping at e-retailers in Pune city. A structured questionnaire was developed with 11 items. The questionnaire was divided in two parts. One was to collect demographic characteristics and other is to collect responses for their preference for online shopping. Total 126 responses were collected through the questionnaire. The analysis showed that demographic characteristics have significant influence on preference to online shopping. The research also gives suggestions to e-retailers in order to attract new customers. Directions for future studies are also discussed in the end.*

**Keywords:** Online Shopping, e-retailers, Pune

**INTRODUCTION**

India is emerging economy in the world today. The demography of Indian population is favorable for most of the businesses as large portion of population is comprised of young people. These young customers have high spending power compared to other age category customers. Because of this increasing spending power, India is seen as one of the promising markets across the globe. Usage of internet is also increasing day by day and number of internet users is very high and it is predicted that India will soon be among the one of the most Internet Users in the world. Therefore adaptability to online shopping has become easy for urban population. Online shopping in cities like Pune is not a new thing. Online shopping is becoming routine for most of the citizens. A decade ago only few e-commerce platforms were present for online shopping. Today the competition is very tough for e-commerce platforms (websites/ mobile application). The number of players has risen significantly. This research is an attempt to identify the relationship between demographic characteristics of consumers and their preference for online shopping over the conventional brick and mortar stores. 126 samples were contacted for their responses. SPSS 13.0 is used for data analysis. This research may help online retailers to formulate strategies to attract and retain consumers.

This study aims at investigating the relationship between demographic characteristics of consumers and their preferences for online shopping over shopping from traditional brick and mortar stores.

**LITERATURE REVIEW**

Meera, Padmaja and Siddique (2017)<sup>1</sup>, conducted a research with the purpose to investigate the buying behaviour of consumers with respect to online shopping and preference towards the Online Shopping

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Mobile Applications. Total 80 respondents from Sivakasi were contacted to get the primary data. The findings of the study revealed that most of the consumers from Sivakasi use snapdeal application for online shopping. However satisfaction level of consumers was found high for Flipkart's mobile application due to competitive prices and hassle-free shopping experience. Advertisement of mobile application was found to be the most influencing factor to choose the mobile application for shopping. The study also noted that among all reasons the 'wide range of brands and product varieties' is the main reason for preferring online shopping.

Yulisetiarini, Subagio, Paramu and Irawan (2017)<sup>2</sup>, investigated the effect of price, service quality and product quality on repurchase intention and satisfaction level while shopping online. Their study included 184 state universities' students in East Java Province. Results of analysis showed that price and service quality have significant relationship with repurchase intention and service quality and product quality both have significant effect on satisfaction of customers. Whereas product quality which was thought to be significantly related with repurchase has no significant effect on repurchase intention. Similarly price has no relationship with satisfaction level of consumers.

Aydin and Hasiloglu (2017)<sup>3</sup> in their study investigated the effect of shyness on online purchase decision making process. 188 respondents were studied for their level of shyness and online purchase behaviour. The results found that the level of shyness and frequency of online buying are significantly correlated. This means that as level of shyness increases the frequency of online buying also increases.

Shanthi and Kannaiah (2015)<sup>4</sup> in their research studied students' attitude towards online shopping and their preference for products when they buy online. Survey method was used to collect primary data. Most of the respondents were students of Madras University and Madras Christian College. The questionnaire was used to collect responses; this questionnaire was comprised of 3 sections. One section was designed to collect responses for internet usage habits. Second part of the questionnaire collected data for online shopping behaviour and third section of the questionnaire included questions to collect demographic characteristics of respondents. Study found that the books are the most bought product category online due to their discounted prices. According to findings the most influencing factor for online shopping is the price of products. Consumers perceive that products are cheaper when bought online. Security of the products, Guarantee/ warranty, delivery time and reputation of the company are other influencing factors in that order. Authors opine that most of the youngsters are well versed with the online shopping and shopping things online is now day to day thing for them.

Wu and Tsai (2017)<sup>5</sup> examined the effect of website characteristic and external stimulus on online shopping behaviour. They have established a relationship model to compare the difference of consumer groups with different online shopping experiences. Through convenience sampling technique 818 responses were collected. According to the results, the two groups with different online shopping experiences were significantly different in three relational paths. To be specific: (1) Compared to the low frequency group, consumers in the high frequency group is more significantly positively influenced by website characteristics along the affection path during their online shopping. (2) Compared to the high frequency group, consumers in the low frequency group are more significantly positively influenced by website characteristics along the attitude path during their online shopping. (3) Compared with the low frequency group, a more significant positive influence is found among consumers in the high frequency group between consumer affection and consumer behavior path.

Suhaily, Soelasih (2017)<sup>6</sup>, conducted a research work to investigate the effect of service quality; price perception and experiential marketing on repurchase intention. The study collected responses from 180 samples. The result showed that e-service quality has significant influence on customer satisfaction and repurchase intention. Surprisingly the price has no influence on satisfaction but has significant effect on repurchase intention. This means that the price responding to the purchased product will lead to repeat purchase, but the price does not lead to customer satisfaction because satisfaction arising from e-service quality. Experiential marketing has no influence to customer satisfaction and

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repurchase intention. Customer satisfaction has positive effect on repurchase intention. The effect of e-service quality and experiential marketing through customer satisfaction as mediation variable has no influence to repurchase intention, while price perception influence to repurchase intention.

Sana S. (2016)<sup>7</sup> conducted a study to examine the online shopping preference among youth in Ernakulum town. 200 young consumers were given the questionnaire for the purpose of this study. The author found that Flip kart was the commonly used online website by the respondents. Clothes and shoes were the main commodities purchased by the respondents through online. The major reason for preference of online shopping by the respondents was 'time saving'

Agarwal S. and Bhati N. S. (2016)<sup>8</sup> investigated various dimensions of e-service quality and its effect on online shopping behaviour. They also examined if gender and e service quality perception are related. 80 individuals from Jaipur city of Rajasthan responded towards the questionnaire. The results showed that in most of the e-service quality dimensions perceptual differences were found across the gender. The study also found that gender and preference towards products are significantly related.

### HYPOTHESES

H<sub>1</sub>: There is significant relationship between age and preference to online shopping.

H<sub>2</sub>: There is significant relationship between gender and preference to online shopping.

H<sub>3</sub>: There is significant relationship between education and preference to online shopping.

H<sub>4</sub>: There is significant relationship between income and preference to online shopping.

H<sub>5</sub>: There is significant relationship between occupation and preference to online shopping.

### RESEARCH METHODS

A structured questionnaire is prepared with the help of past studies and few experts. This questionnaire is used for data collection. This questionnaire included two parts. The first part collects data for preferences to online shopping. It included 6 items to understand consumers' preferences. Respondents were asked to rate all of these 6 items on 5 point Likert's scale. On this scale 1 represents strongly disagree and 5 represents strongly agree. The mean of all 6 items represents the preference for online shopping. The second part of the questionnaire was comprised of forced questions to collect demographic characteristics of respondents. Total 150 consumers were approached based on non-probabilistic convenient sampling and given the questionnaire. Only 126 questionnaires were returned and were complete with respect to responses to all the items of the questionnaire.

### DATA ANALYSIS

#### Reliability Test

Table no 1 shows the reliability test for the questionnaire. The Cronbach's alpha value is higher than .7 therefore the questionnaire was considered reliable.

Table No.1 Reliability Statistics

Cronbach's Alpha	N of Items
.830	11

Table No. 2 describes the frequencies of respondents with respect to their demographic characteristics.

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Table no. 2. Frequency Table

Demographic Characteristics	Groups	Frequency	Per cent
Age	15-25	14	11
	26-35	22	17
	36-45	62	49
	46-55	12	10
	56 and above	16	13
	<b>Total</b>	<b>126</b>	<b>100</b>
Education	Up to 10th	8	6
	12th/ Diploma	18	14
	Graduation	36	29
	Post-Graduation	52	41
	PhD	12	10
	<b>Total</b>	<b>126</b>	<b>100</b>
Occupation	Salaried	28	22
	Self-employed	28	22
	Business	18	14
	Home Maker	30	24
	Student	22	17
	<b>Total</b>	<b>126</b>	<b>100</b>
Income	1 to 2 lakh	10	8
	2 to 4 lakh	10	8
	4 to 6 lakh	18	14
	6 to 8 lakh	34	27
	above 8 lakh	54	43
	<b>Total</b>	<b>126</b>	<b>100</b>

**DESCRIPTIVE ANALYSIS**

Table No.3 Descriptive Statistics- Preference to online shopping

	N	Minimum	Maximum	Mean	Std. Deviation
5.1. I get the product at reasonable price as compared to physical/ brick and mortar store.	126	1.00	5.00	3.2698	.98316
5.2. It saves time as I don't have to wait in queue for billing	126	1.00	5.00	3.4444	1.11395

5.3. Online shopping leads to fewer expenses (if I visit offline store, I also tend to spend on eating out, impulsive purchase, travelling etc.	126	1.00	5.00	3.1587	1.21598
5.4 It saves travel time	126	1.00	5.00	3.5079	1.33714
5.5. I get to choose from wide range / variety of products	126	1.00	5.00	3.3492	1.21535
5.6. I can compare different products which helps me to make informed and well researched decision	126	1.00	5.00	3.4921	1.27591
Overall Mean				3.37035	

From table no 3 it is observed that all the means are above 3. This indicates that most of the respondents prefer online shopping over shopping at walk-in, conventional stores. The highest mean is for the statement 'It saves travel time' and the mean value is 3.5. This may be because Pune city is considerably high on its traffic and it is frustrating to travel across the city. Therefore people now prefer to shop online instead of wasting time in traveling. However the high standard deviation (S.D.>1.33714) suggests that the responses are widely dispersed. The statement 'Online shopping leads to fewer expenses (if I visit offline store, I also tend to spend on eating out, impulsive purchase, travelling etc.' has got minimum mean among all statement. This suggests that this may not be the exact reason for preferring online shopping. Here also the S.D. value is high (S.D. > 1) and indicates that the responses are widely distributed.

#### **HYPOTHESES TESTING**

To test  $H_1$ ,  $H_3$ ,  $H_4$  &  $H_5$  one way ANOVA is used. The results of test are given in table no. 1.

**Table no.4 ANOVA Age, Education, Income\* Preference to online shopping**

		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	9.662	4	2.415	2.029	.095
	Within Groups	144.053	121	1.191		
	Total	153.714	125			
Education	Between Groups	48.138	4	12.034	16.573	.000
	Within Groups	87.862	121	.726		
	Total	136.000	125			
Income	Between Groups	87.513	4	21.878	23.441	.000
	Within Groups	112.931	121	.933		
	Total	200.444	125			

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Occupation	Between Groups	6.014	4	1.503	1.217	.307
	Within Groups	149.478	121	1.235		
	Total	155.492	125			

From table no. 4 it is observed that the significance values (p) of F test for education and income are less than .05. It means that as the means of education and income differs the mean of preference to online shopping also differs significantly. In other words, education and income of consumers are significantly related with their preferences to online shopping. Therefore we reject null hypotheses and 'H<sub>3</sub>: There is significant relationship between education and preference to online shopping; H<sub>4</sub>: There is significant relationship between income and preference to online shopping' both are accepted.

To test H<sub>3</sub> T-test is used as there are only two groups in gender variable. The result is reproduced in table no. 5.

**Table no. 5. T-test Gender\* Preference to online shopping**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Diff.	
									Lower	Upper
Preference to Online Shopping over Brick & Mortar store shopping	Equal variances assumed	.011	.916	-2.925	124	.004	-.57684	.19722	-.96719	-.18649
	Equal variances not assumed			-2.847	95.298	.005	-.57684	.20260	-.97903	-.17465

From table no 5 it is found that the significance value of Leven Test is very high ( $p > .05$ ), therefore the results that assume equal variances for both groups are referred. From the table it is seen that the significance value of t test is less than .05 ( $t = -2.925$ ;  $p < .05$ ). This indicates that the male and female differ in their means of preference to online shopping. Therefore we fail to accept null hypothesis and accept 'H<sub>2</sub>: There is significant relationship between gender and preference to online shopping'.

## RESULTS AND DISCUSSION

From data analysis it was found that the saving on travel time was the first reason of buying online. Hypotheses testing showed that education, income and gender are significantly related with preference to online shopping. Out of five hypotheses three are accepted therefore in general it can be noted that demographic characteristics have significant effect on online shopping preference. Therefore online retailers must consider the demographics of their target population. It was observed that age, income and education and preference to online shopping are significantly correlated. This means that as age, education and income increase their preference to online shopping also increase. Therefore online retailers should target high age, high education and high income group so as to increase their customer base and subsequently to increase their revenue. While promoting their online website or mobile

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application e-retailers should emphasis on saving time on shopping. Delivery time should be reduced so as to attract new customers. However since the sample size is small, the findings may not be generalized. The future studies may investigate effect of application based promotions on preference to online shopping. Future studies may also examine preference for different online retailer among the consumers and reasons for their preference to particular e-retailer.

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