NEW PROSPECTS FOR ONLINE SHOPPING IN INDIA

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ABSTRACT

Evolving consumerism and changing shopping behavior of Indian consumer made Indian retail market second largest in the world. With a compounded annual growth rate of 47%, E-Commerce is booming in India. Still, there is a long way to go for an e-tailer, as the model is new to the Indian consumers and with plenty of reasons; they seem reluctant to buy online. Among many challenges, winning the trust of the customer and convincing him for adopting online shopping is bigger. The paper aimed mainly to find the new prospects for e-tailing in India by understanding the behavior of Indian consumer. The attitude of respondent with different social, economic demographic (SED) factors were identified by a structures questionnaire, arranged and analyzed through Chi-square in SPSS 23.0. This study will help existing and coming e-tailers to analyze the relation between different demographic factors and behavior of Indian consumer towards online shopping, which carries the potential to change the game in Indian retail industry.

KEYWORDS*: E-tailers, Consumerism, Social Economic Demographic (SED) Factors.*

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Introduction

Technology is in everything and everywhere. Opening many grey areas, it made lots of advancement in our life. Almost all sectors and industries today are using computer technologies to improve their business practices. A very prevalent trend of selling products online has recently started to flourish in India. A lot of e commerce companies pop upped in recent year and suddenly their presence is felt in the market. The industry has achieved these significant figures in a situation where only a very small segment of the market is buying online. On one side when people prefer online buyer contrary to it on the flip side, there is a big segment of customer who still hesitate to place an order online. There are major technical, procedural challenges in front of retailers like availability of funds, Reliable logistic and supply chain, customer service and acquisition. Along with these technical reasons, a very critical challenge is the majority of the people, who still hesitate to buy online and that become a very strong point to understand and act on.

Retail in India is undergoing a huge transformation in the way India shops and trade. The change has caught the eye of every segment and entrepreneur. The basic business model and commercial models are undergoing changes with the integration of e-commerce with them. The explosive growth in the last few years has already catapulted the biggest firms, among these many ventures past the billion-dollar territory. India might have only 300-odd million Internet users, out of its total population of 1.3 billion. But this has not stopped online commerce from establishing itself in the country. For any other industry, it takes decades of effort to have companies that are worth billion dollars. But in India, out of the nine startup unicorns, four are horizontal online marketplaces and despite the recent shutdowns and funding crunch affecting the startup ecosystem, digital commerce has established itself. The latest study by the Internet and Mobile Association of India (IAMAI, 2016) has, in fact, found that at a CAGR growth rate of about 30 percent between December 2011 and December 2015, Indian digital commerce stands at Rs 1,25,732 crore. The report estimates that it will hit Rs 2,11,005 crore this year. However, online shopping comes only after online travel, which is valued close to Rs 76,396 crore.

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No matter how big the problem is, precisely understanding consumer behavior and his dynamics became a successful key to resolve all problems. Korgaokar (1999) studies the demographic variables of consumers and results show that age, gender, geographic distribution, income, family, and work can affect consumers' online purchasing behaviors (Korgaokar & Wolin. LD., 1999). Bellman (1999) studies online consumers and finds that rich product information can affect the online shopping (Bellman, Lohse G & Johnson E., 1999). From the angle of website technology, Swami Nathan studies the factors that influence consumers' online purchasing based on characteristics of consumers, and results show that the competitive price and the quick cancel of orders are the key for consumers' online purchasing (Swami Nathan. E. Lepkowska-White & B.P Rao, 1999).2

Research Objectives

The study has been conducted to identify the effect of demographic variables, which influence the shopping behavior of Indian consumer towards online shopping. More concrete objectives are:

- To identify the effect of different demographic variables on shopping behavior.
- To find out the relationship between demographic factors and online shopping behavior.

To achieve the desired objectives the population was divided in different categorical variables and the data is analyzed and interpreted using SPSS 23.0 by chi square test for finding an association between two categorical variables. This research paper is divided into two major sections. The first part covers the theoretical background and previous research that has been conducted in this area. The second part presents the research methodology adopted to investigate consumer decision making in shopping online. The research method includes filling in structured questionnaire. Finally, we provide a general discussion of the findings, as well as limitations of the study and directions for future research.

Hypothesis of the Study

Keeping the two research objective in mind, we formulate the following hypothesis

Alternate Hypothesis H (a): Online shopping behavior is not independent of demographic variable

Null Hypothesis H (o): Online shopping behavior is independent of demographic variable..

Research Methodology

For our primary research objective of identifying the effect of different demographic variables on shopping behavior, four influencing demographic variables like Age, Gender, Income, Occupation were selected. The population was then divided accordingly and with the help of non-probabilistic sampling, the samples were selected from three different cities of Rajasthan viz Kota Jaipur and Udaipur. With the help of well structures questionnaire the data was recorded. The size of the sample was 300 (100 from each city.)

Four different demographic variable Viz age, sex, income, and profession were selected. The viewpoint of the customer was recorded and then sorted, tabulated and categorized accordingly. By combining categories we end up getting 2X categories in for each variable. (Hesitate/do not hesitate * Variable). The collected frequencies of the responses were then tabulated in the respective category and contingency tables generated. The study was done in two parts. In a first part descriptive analysis was done and contingency tables were made. In the second part, to find out the relationship between categorical variables and response to customer, Pearson Chi square analysis (Fisher, 1922; Pearson, 1900), was used based on the simple idea of comparing the frequencies we observe in certain categories to the frequencies we might expect to get in those categories by chance.

Deviation= (Observed-Model) ^{2}.

$$x^2 = (\square\square\square\square\square\square\square\square\square - \square\square\square\square\square\square)2 / (\square\square\square\square\square\square)$$

In which i- represent the rows in contingency tables j represent columns in contingency tables. The observed data are frequencies in the table and the model is calculated by dividing the total number of samples by a number of categories. The relationship was established analyzing the recorded value of chi square for each category.

Analysis and Interpretation

The primary data collected is tabulated, edited, sorted and analyzed using 23.0 version of SPSS. Aimed at finding the effect of demographic variable, we selected four major variable as our latent

variable. The latent variable than divided into categories and sample are arranged accordingly. The responses were recorded and data was tabulated and analyzed in SPSS. Using cross tabulation the descriptive data tabled were generated, which help us to analyze the categorical data and generate the graphical representation of the same. In the second part of the analysis, using chi-square, the effect of demographic variable on shopping behavior was analyzed and chi-square tables are generated.

- **Analysis for Factor 1 – Age * Behavior**

Total number of samples is divided into four categorical ranges of ages and their responses towards shopping online were tabulated using crosstab status from SPSS 23.0. To check the hypothesis Pearson Chi-square test was applied.

Table 1: Age * Behavior Cross Tabulation

			Behavior		Total
			Hesitate	Do not hesitate	Hesitate
Age	16-25	Count	31	44	75
		Expected Count	42.5	32.5	75.0
		% within Age	41.3%	58.7%	100.0%
		% of Total	10.3%	14.7%	25.0%
	26-40	Count	41	34	75
		Expected Count	42.5	32.5	75.0
		% within Age	54.7%	45.3%	100.0%
		% of Total	13.7%	11.3%	25.0%
	41-55	Count	46	29	75
		Expected Count	42.5	32.5	75.0
		% within Age	61.3%	38.7%	100.0%
		% of Total	15.3%	9.7%	25.0%
	>55	Count	52	23	75
		Expected Count	42.5	32.5	75.0
		% within Age	69.3%	30.7%	100.0%
		% of Total	17.3%	7.7%	25.0%
Total		Count	170	130	300
		Expected Count	170.0	130.0	300.0
		% within Age	56.7%	43.3%	100.0%
		% of Total	56.7%	43.3%	100.0%
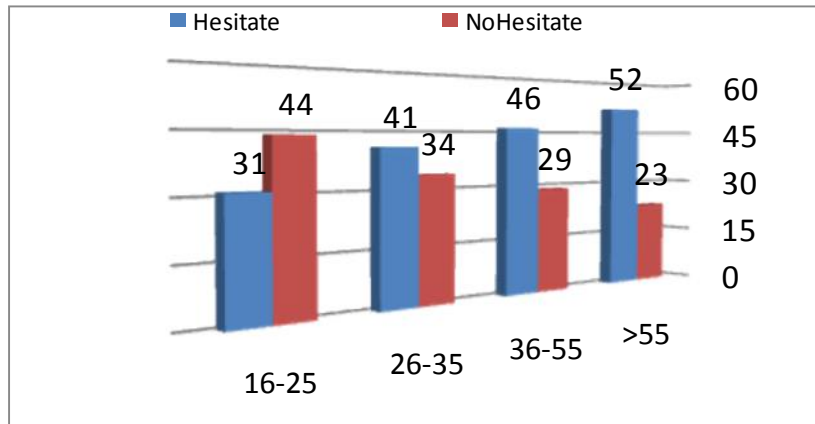
Descriptive analysis of categorical data with respect to age group enable us to interpret that out of 300 internet users 170 users i.e 56.7 % respondent hesitate to buy online. Combining all age groups, Maximum hesitation 69.3 % is found in users of age more than 55 years. With 61.3 %, users of age group 41-55 years, 54.7% in age group 26-40 Years and 41.3% in age group 16-25 years follow the trail.
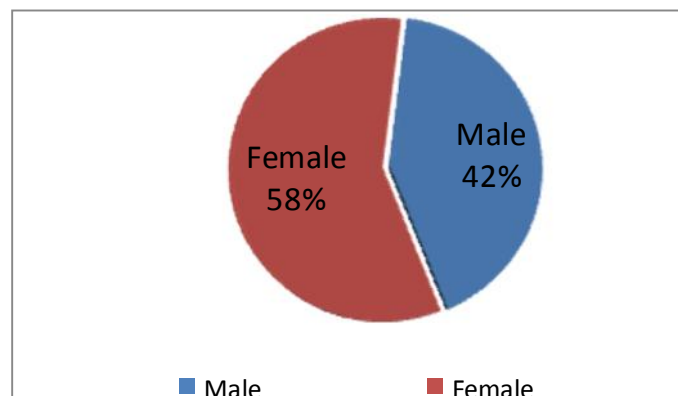
Table 2: Chi-Square Tests

|	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.869(a)	3	.005
Likelihood Ratio	12.968	3	.005
Linear-by-Linear Association	12.512	1	.000
N of Valid Cases	300		

a 0 cells (.0%) have expected count less than 5.

The minimum expected count is 32.50.

With 3 degree of freedom, the value of chi square 12.869 does not fall in range of critical value. This value highly significant (p < .01), indicating that the age group has a significant effect on how the consumer behave towards online shopping, hence we negate the null hypothesis and accept alternate hypothesis, which advocate a relation between age group and hesitation for online shopping in users.

- **Analysis for Factor 2 – Gender * Behavior**

Total number of samples are arranged according to gender and their responses towards shopping online were tabulated using crosstab status from SPSS 15.0.
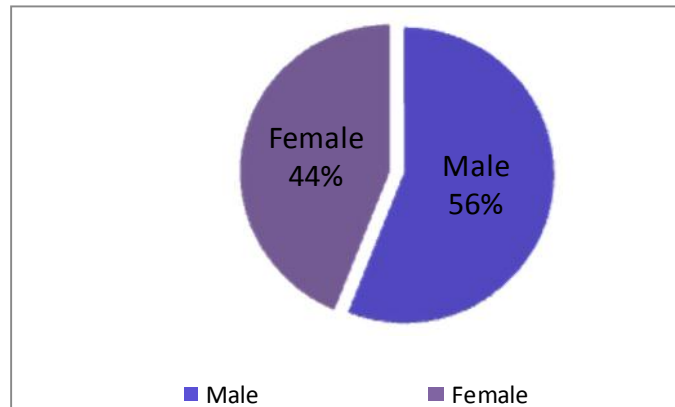
To check the hypothesis Pearson Chi-square test wsas applied.

Table 3: Gender * Behavior Cross tabulation

			Behavior		Total
			Hesitate	Do not hesitate	Hesitate
Gender	Male	Count	95	55	150
		Expected Count	85.0	65.0	150.0
		% within Gender	63.3%	36.7%	100.0%
		% of Total	31.7%	18.3%	50.0%
	Female	Count	75	75	150
		Expected Count	85.0	65.0	150.0
		% within Gender	50.0%	50.0%	100.0%
		% of Total	25.0%	25.0%	50.0%
Total		Count	170	130	300
		Expected Count	170.0	130.0	300.0
		% within Gender	56.7%	43.3%	100.0%
		% of Total	56.7%	43.3%	100.0%

Total sample of 300 respondents were divided equally in both genders and we found that 63.3 % male were showed hesitant behavior towards online shopping, the same percentage for female was 50 %, which is less than males.

Table 4: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.430(b)	1	.020		
Continuity Correction(a)	4.900	1	.027		
Likelihood Ratio	5.448	1	.020		

Fisher's Exact Test				.027	.013
Linear-by-Linear Association	5.412	1	.020		
N of Valid Cases	300				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 65.00.

We found that both genders show the same kind of behavior. The value of chi square for one degree of freedom is 5.430, which fall under the critical value range. It made us accepted null hypothesis, which advocates "no relation" between gender and hesitant behavior of users for online shopping.

- **Analysis of Factor 3 – Occupation * Behavior**

Total number of samples is divided into four categorical ranges according to their occupation and their responses towards shopping online were tabulated using crosstab status from SPSS 23.0. To check the hypothesis Pearson Chi-square test was applied. Total 300 respondents were divided into five categories of occupation that were salaried, self-employed, housewives, students and professionals.

Table 5: Occupation * Behavior Cross Tabulation

			Behavior		Total
			Hesitate	Do not hesitate	Hesitate
Occupation	Salaried	Count	24	36	60
		Expected Count	34.0	26.0	60.0
		% within Occupation	40.0%	60.0%	100.0%
		% of Total	8.0%	12.0%	20.0%
	Self Employed	Count	40	20	60
		Expected Count	34.0	26.0	60.0
		% within Occupation	66.7%	33.3%	100.0%
		% of Total	13.3%	6.7%	20.0%
	House wives	Count	40	20	60
		Expected Count	34.0	26.0	60.0
		% within Occupation	66.7%	33.3%	100.0%
		% of Total	13.3%	6.7%	20.0%
	Student	Count	30	30	60
		Expected Count	34.0	26.0	60.0
		% within Occupation	50.0%	50.0%	100.0%
		% of Total	10.0%	10.0%	20.0%
	Professional	Count	36	24	60

		Expected Count	34.0	26.0	60.0
		% within Occupation	60.0%	40.0%	100.0%
		% of Total	12.0%	8.0%	20.0%
Total		Count	170	130	300
		Expected Count	170.0	130.0	300.0
		% within Occupation	56.7%	43.3%	100.0%
		% of Total	56.7%	43.3%	100.0%

Descriptive analysis showed that the maximum hesitation was found in self-employed and Housewives. 66.7 % of respondent hesitate to make purchases online in both categories, followed by 60 % professional, 50 % student and 40% salaried. The data clearly shows the inclination and the use of the internet for online shopping. Responded who are either salaried or student has shown more inclined in comparison to self-employed and housewives. Professional showed a mixed response

Table 6: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.032(a)	4	.011
Likelihood Ratio	13.075	4	.011
Linear-by-Linear Association	1.326	1	.250
N of Valid Cases	300		

a 0 cells (.0%) have expected count less than 5.

The minimum expected count is 26.00.

The value of chi – square at 4 degrees of freedom is calculated as 13.032, which does not fall under critical value criteria, which make us reject the null hypothesis and accept the alternate hypothesis which advocates a relationship between hesitation of users towards online shopping and occupation they are in to.

- **Analysis of Factor 4 – Region * Behavior**

The fourth demographic variable chosen was the region from which the respondent belongs. All 300 respondents were sorted in four categories as Metro, Urban, Semi Urban and Rural.

Table 7: Region * Behavior Cross Tabulation

			Behavior		Total
			Hesitate	**Do not hesitate**	**Hesitate**
Region	Metro	Count	30	45	75
		% within Region	40.0%	60.0%	100.0%
		% of Total	10.0%	15.0%	25.0%
	Urban	Count	35	40	75
		% within Region	46.7%	53.3%	100.0%
		% of Total	11.7%	13.3%	25.0%
	Semi urban	Count	50	25	75
		% within Region	66.7%	33.3%	100.0%
		% of Total	16.7%	8.3%	25.0%
	Rural	Count	55	20	75
		% within Region	73.3%	26.7%	100.0%
		% of Total	18.3%	6.7%	25.0%
Total		Count	170	130	300
		% within Region	56.7%	43.3%	100.0%
		% of Total	56.7%	43.3%	100.0%
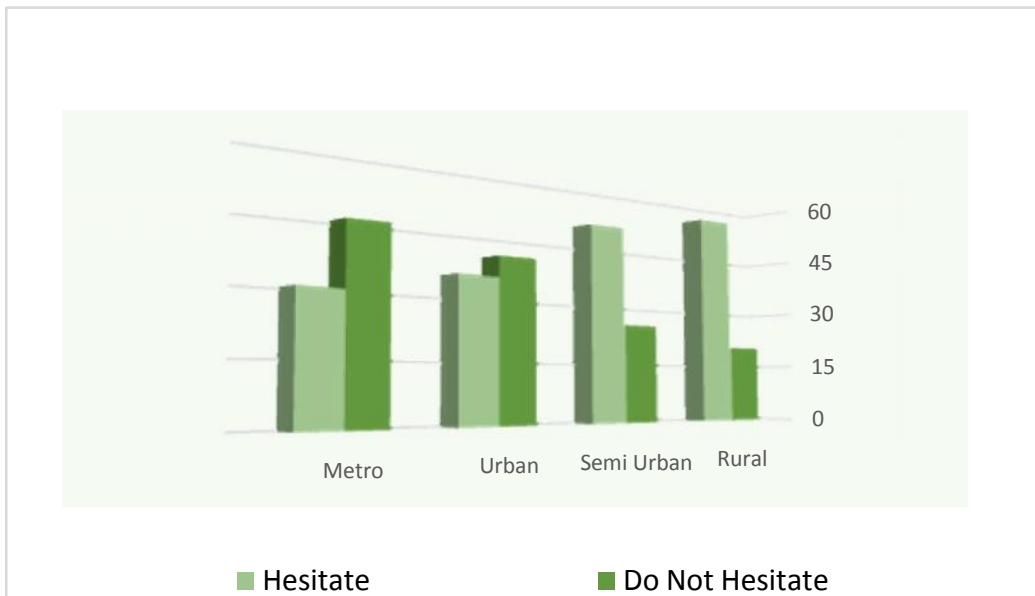
Descriptive analysis of cross tabulation of behavior and the region showed us that the maxima hesitation was found in rural regions wherein 73.3 % user hesitate to make a purchase online, Which is followed by 66.7 % respondents in semi-urban area, 46.7 in urban and lost 40 % in metro cities. The data clearly shows an immense area of scope for online selling portals in rural area wherein more than 50% of the population of India reside.

Table 8: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.077(a)	3	.000
Likelihood Ratio	23.484	3	.000
Linear-by-Linear Association	21.918	1	.000
N of Valid Cases	300		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.50.

With 3 degree of freedom the value of Persons's chi square 23.07 clearly falls out of the critical value are area, which make us to reject the null hypothesis and accept alternate hypothesis which advocates the relationship of online shopping from users and the area they belongs.

Finding & Conclusion

With our primary aim to identify the effect of different demographic variables on shopping behavior the samples were analyzed with respect to each variable. The first categorical variable hesitation on shopping internet is analyzed with respect to various age categories. Study and analysis of data reveal that both the variable are not independent and have a co-relation between each other. The least hesitation found the age category 16 to 25 years and maximum hesitation found in age category more >55 year. The second demographic factor gender into consideration found to be independent with respect to online shopping behavior and does not have any significant influence on online shopping behavior.

The third factor occupation is found to correlate with the online shopping behavior and the calculated chi square value make us believe that both the variable are not independent of each other and have a co-relation with each other. The occupation of the customer significantly influences the online buying behavior of the customer. The last factor in the study also advocates a relation between the area customer lives and online shopping behavior. The study suggests that customer of age > 55 year has maximum hesitation in shopping online and our paper suggest that the marketer must have a strategy to allure and bring customer of age category >55 to shop online. In category, gender female are found more in term of percentage to shop online. The paper also suggests marketer to spread into other areas than metro cities when the majority of the Indian lives. Concluding the study as a total, demographic factors are found to have an impact on shopping behavior of the customer and this must be taken into consideration for various marketing functions.

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