

## An Exploratory Study on Effect of Demographic Factors on Consumer Satisfaction and its Determinants in E-Retailing

<sup>1\*</sup> Urooj Ahmad Siddiqui, <sup>2</sup> M. S. Khan

<sup>1,2</sup> School of Management Studies, Babasaheb Bhimrao Ambedkar University, (A Central University), Lucknow, India

Received 16 May 2017, Accepted 12 June 2017

---

### ABSTRACT:

The purpose of the study was to explore the impact of demography of online customers on e-satisfaction as well as on the determinants of e-satisfaction operating in e-retailing space in India. A theoretical model was derived in accordance with the literature and was tested empirically. Conveniently sampling technique was used. Primary data was collected through a structured questionnaire through personal and online mode. First of all a descriptive analysis was done and a demographic profile of the online customers was created. To explore any possible impact of these demographic factors on e-satisfaction and its determinants an exploratory factor analysis was done to consolidate the underlying constructs and ascertain the structure of determinants along with their factor scores. Once the underlying constructs were unearthed, the impact of each demographic was assessed on e-satisfaction and its each if its determinants separately by employing either t-test or ANOVA which was applicable. The results of exploratory factor analysis show that the e-satisfaction and its determinants can be consolidated into six underlying constructs or factors. The results of t-test and ANOVA conclude that most of the determinants are independent of the demography of the online customers. The demographic factors that were found to have significant impact are gender, education, age and income on convenience, e-satisfaction and merchandising, perceived value and financial transactions respectively.

**Keywords:** E-Retailing, E-Satisfaction, Determinants of e-satisfaction, Impact of demography, Demographic factors

---

### INTRODUCTION

Online retailing, or e-tailing is defined as the sale of products and services to the customers over the Internet, a channel that is not bounded by time or geography (Ahn, Ryu, & Han, 2007; Kolesar & Wayne Galbraith, 2000). Global online retailing sales have been increased sharply over recent years, driven by a growing Internet penetration and paradigm shift in consumer behavior. Euromonitor report 2012 shows that global online retail sales reached US \$579.9 billion in 2012 accounting 14.8 percent per annum growth from 2007-2012i. As a result,

the share of online retail in the global retail jumped from 2.2 percent in 2007 to 4 percent in 2012. It is expected to grow at 15.06 percent CAGR for the period 2012-2017 due to willingness of Internet users to purchase online; secured and regulated IT infrastructure for online payment systems, and improved logistics infrastructure.

In developing country like India, online retail has started marking its footprints into overall retail market and it is poised to grow further. In 2012-13, e-tailing comprise 0.5 percent of total

---

\*Corresponding Author, Email: [urujuruj@gmail.com](mailto:urujuruj@gmail.com)

retail sales and 7.9 percent of the organized retail sales. Although, size of e-tailing market is very small as compared to organized and total retail market in India, but it was increased from US\$ 0.24 billion in 2007-08 to US\$ 2.26 billion in 2012-13, with a CAGR of over 56 % (Figure 1.2). Nearly, three out of every five Internet users in India are found to shop online. This phenomenal growth is attributed to increased penetration of Internet and smart phones due to its lower price and improved IT infrastructure. However, logistics infrastructure and e-fulfillment services remain as key challenges for sustenance and further growth of online retail in India. Another major challenge for the e-tailer is to retain the customers that frequently switch to the other e-tailers due to negligible switching cost and effort.

The intense competition leads to decreased sales, low margins and low profits. Due to this it becomes imperative for E-Retailers to satisfy their customers to the extent of customer delight and maintain a strong customer relationship so that they can make loyal customers. Anderson, Fornell, & Lehmann (1994) showed that there is a strong positive relationship between customer satisfaction and firm profits. Bolton & Lemon (as cited in Yang & Peterson, 2004) stated that satisfied customers tend to have a higher usage of service and in contrast to the ones who are not satisfied. And according to Zeithaml et al. (1996) satisfied consumers are more likely to have greater repurchase intent and to recommend products and/or services to their acquaintances Winer (2001), while developing an extensive framework for customer relationship management in e-commerce space granted crucial attention to customer satisfaction, recommended regular measurement and monitoring of customer satisfaction so that appropriate programs could be developed from time to time for delivering value that exceeds customer expectation. Bhattacharjee (2001) stated that customer centric approach is very important in e-commerce B2C space where completion is just a click away and emphasized customer satisfaction as a part this approach because satisfied customers may advertise via positive word-of-mouth which less expensive (than print or any mass media) and more efficient channel due to more trust associated with WoM. Therefore the vital role of

satisfaction for better customer relationship and loyalty *appears* to remain intact even in E-commerce settings. This generates the need to identify the factors affecting customer satisfaction in e-retailing settings specifically in India. Though a lot of research is being done in this domain around the world but there is a dearth of studies in Indian context. This study tries to analyze the factors that affect customer satisfaction and loyalty in Indian context.

#### Literature Review

First of all the determinants of e-satisfaction were identified along with the measurement of e-satisfaction. According to expectation-confirmation theory (ECT) customer satisfaction is defined as the affective reaction of the customer which is the result of disconfirmation between the customer expectations and actual experience of the customer (Oliver, 1981). This affective reaction is either positive (satisfaction), negative (dissatisfaction) or indifferent depending upon the results of disconfirmation process. This concept is extensively used for the purpose of defining and measuring satisfaction from tangible goods and intangible services. As retailing is conceived more of a service this concept of satisfaction is equally applicable to it. Satisfaction in conventional retailing is comprehensively discussed by Anderson, Fornell, & Lehmann 1994, Oliver 1981; Oliver 1997; Oliver 1999, Parasuraman, Zeithaml, & Berry 1988, Zeithaml, Berry, & Parasuraman 1996. Typically satisfaction is conceived to be a function of quality of services, purchasing process, pricing policy and most importantly service environment. According to Oliver (1981) satisfaction is the “consumer’s fulfillment response” and hence according to him a satisfaction judgment, involves at the minimum two stimuli—an outcome and a comparison referent.” Improvising on this concept Szymanski and Hise (2000) conceptualized satisfaction in online context as E-Satisfaction (henceforth e-sat) as the consumers’ judgment of their Internet retail experience as compared to their experiences with traditional retail stores. In e-retailing also this concept is not very different other than the symbol. They defined e-satisfaction in the online context as an overall construct reflecting the cumulative effect of a set of discrete experiences with the service provider

as compared to traditional retail over a period of time.

Although this definition is quite acceptable it takes into account comparison with traditional retailing. A more acceptable and widely used definition of e-sat is given by Anderson and Srinivasan (2003) as “the contentment of the customer with respect to his or her prior purchasing experience with a given e-commerce firm”. This concept exclusively takes into account the customer experience with an e-commerce firm hence is more practical to use for defining and measuring e-sat. This study accepts this definition adopts the instruments from Anderson and Srinivasan (2003) for measuring e-sat.

As far as the determinants of e-satisfaction are concerned service quality of any website or e-service quality (e-SQ) in itself is the most important determinant of e-sat and an entire separate domain of study in online retailing. Plethora of studies exists in this domain, Yoo and Donthu (2001) developed SITEQUAL model to describe the e-service quality, e-TailQ model was developed by Wolfinbarger and Gilly (2003) whereas Parasuraman et al. (2005) proposed E-SQ model. Since e-SQ is established and most accepted determinant of e-sat this study considers other factors consisting of convenience, product and price related factors, and financial transactions.

#### **Convenience**

Convenience is the ease that customers get while purchasing online and includes the overall convenience of time and place along with the ease in handling of the website to browse for product and information search or to make purchases. Szymanski and Hise (2000) in their seminal research proposed and established that convenience is the significant factor affecting e-sat. Similar results were also obtained by Burke (2002) in different geographical context. Srinivasan and Anderson (2002) also found a significant and positive relationship between convenience and e-sat. Evanschitzky et al. (2004) replicated the Szymanski and Hise (2000) model and significant effect of convenience. Yang et al. (2004) and Ribbink et al. (2004) emphasized that ease of use is an important component in creating e-sat. Kim et al. (2007) and (2011) also indicate direct positive effect of convenience and e-sat.

#### **Merchandising**

Merchandising includes product information regarding its features and functioning, product offerings and variety of the products being offered. This component specifically becomes important in online purchasing since there is no human interaction to satiate any query generated by the prospect. Any query and doubt should be self explanatory through the information present on the website. Similarly through a sufficiently large product assortment consumer get choices to select the product and chances of selling increases. Szymanski and Hise (2000), Burke (2002) and Evanschitzky et al. (2004) found significant impact of product information and assortment on e-sat. Schaupp and Bélanger (2005) also found that convenience and merchandising influence e-sat positively and significantly. Liu et al. (2008) also found out that assortment of products and information availability is important factors for long term consumer relationship. In context of e-servicescape, Kim et al. (2011) found to have a direct and positive impact of information and variety on customer satisfaction.

#### **Perceived Value**

Online shopping in India is still at nascent stage and customers generally seek value deals through online shopping. Customer perceived value is the total benefits that customers receive in relation to the total cost incurred. Total benefits include the utility, features and any other benefit that customers seek whereas the total cost involves both monetary and non monetary cost in form of money, time and efforts invested to purchase a product. In accessing the value received consumers involve themselves in a trade-off between prices and quality of the products. Hence proper and fair price – right price against the quality offered becomes important to attract and retain customers in Indian context. Burke (2002) stated that competitive prices attract the customer to shop online; Shwu-Ing (2003) argues that customers always compare prices before they buy online. Chang et al. (2011) found that perceived value has a significant impact on e-sat and it also has a significant moderating affect also. According to Carlson et al. (2015) the perceived value of online channel has a significant impact on satisfaction and loyalty

intentions. This study conceives perceived value in relation to the prices charged against the quality offered.

### **Financial Transactions**

Online shopping involves digital gateways of payment through debit/credit cards, internet banking and some other options. For Indian customers online payment through use of their debit or credit cards is still very unsecure. Even in global context this insecurity is prevalent, according to Bruskin/Goldberg Research (as cited in Szymanski and Hise, 2000) 75% of the online shoppers are worried about the security of their credit cards. Most of the customers are apprehensive about disclosing their financial details online. For this reason a major chunk of the deliveries in India are on Cash on Delivery basis. According to Ernst and Young (2011) 30% of the online sales in India are on COD basis. The two aspects in the online financial transactions are the complexity involved in the payment and the security of the financial information. The first issue could be overcome by acquaintance with the online mode but the issue of security is always there and even prevalent round world. Szymanski and Hise (2000), Burke (2002) and Evanschitzky et al. (2004) found a significant and positive relationship between the perception of security or trust on the website and e-sat.

## **RESEARCH METHOD**

### **Data Collection**

A structured questionnaire was employed to collect the empirical data. It comprised two sections, first section comprised the questions regarding demographics of the consumers and the second section contained the instruments to measure different constructs of interest. The questionnaire was administered both personally and was also hosted on Google forms and the URL link was sent to the customers via e-mail or messaging. The e-mail or messages were sent conveniently and purposively to the customers engaged in online purchasing. Wherever possible, snowballing technique was also used to get the responses. More than 400 e-mails or messages were sent. Continuous follow up yielded 178 responses, consisting of 125 online and 53 offline responses. Out of these responses only 167 were found to be valid. Since factor

analysis was to be employed to measure the constructs, recommendation of Nunnally (1978) was followed in having 10 participants per variable or instruments present in the analysis. A total of 15 instruments were used in the questionnaire therefore a sample size of 167 would stand sufficient to obtain valid results. The sample is also in accordance with Kass and Tinsley (1979) recommendation of having 5-10 respondents per instrument.

### **Scaling and Measurement**

The demographic details recorded in section I were measure either on the nominal scale (gender and employment status) or on ordinal scale that consists of age group, income group, education level. To measure the constructs of interest section II contained a 15-item Likert type scale. Consumer perception related to different constructs was recorded through a response on each item on a 5-point rating scale with responses ranging from '1 for strongly disagree to '5 for strongly agree. The mid-point '3' specified the state of indifference with the item through the response of 'neither disagree nor agree'.

Five construct were measured in the study: convenience, merchandising, value, financial security and e-satisfaction. Wherever possible, scale items were adapted from previously validated measures available in literature. Convenience was measured with the 3-item scale adopted from Szymanski and Hise (2000). The first two items represents convenience of time and place with respect to traditional stores while the third item was regarding ease of browsing. Merchandising was measured with 4-item scale adapted again from Szymanski and Hise (2000), the first two items represents the number and variety of the products offered and the last two items were about the information about the products. To measure perceived value 3-item scale was adopted and developed from Sweeney and Soutar (2001) and Carsol et al. (2015) on the basis of its definition representing price and quality of the products. Financial transaction was measured with 2-item scale also developed according to its definition, the two items represents ease of payments and financial security. E-satisfaction scale consisted of 3 items adapted from Anderson and Srinivasan (2003). Exploratory Factor Analysis was done to

validate the constructs and to the reliability of the scales was assessed with Cronbach’s alpha.

**DATA ANALYSES AND RESULTS**

**The Demographic Profile**

First of all a descriptive analysis was done to comprehend the demographic profile of the respondents. The collected sample represents a mix of various demographic factors such as age, gender, education and income level, take in table 1. The sample comprises 61.8% of male respondents which consistent to common norm of male dominance in online shopping (Flipkart, n.d.). With respect to age young generation from age 18 to 36 years forms majority of the sample with about 86% of the respondents. This is also in conformance with the market norm indicating that the largest purchasing age group is between 25-36 years. In terms of the education level majority were either PG or more totaling to about 80%. This is due to the reason that mostly the educated group with internet access is engaged in online shopping. The largest occupation group of the sample was salaried with 62% respondents, while only 7% were self employed and around 28% were either students or unemployed. The sample may be conceived a mix of employed and unemployed groups. As far as income of the respondents is concerned most of the categories are more or less equally

represented with the largest two groups having income from 20k-30k (23%) or more than 40k (23.6%). Overall the sample is representative of typical online consumers (table1).

**Exploratory Factor Analysis**

An exploratory factor analysis (henceforth EFA) was performed on the 15-item scale to access the validity of the priori defined constructs and get definite structure of the factors considered in the context of study. Prior to proceeding for EFA the reliability of the scale used was accessed with Cronbach’s alpha measure both at total scale and individual constructs level. The overall alpha was found to be .876. The alpha for individual factors are .788 for convenience, .829 for merchandising, .852 for perceived value, .798 for financial security and 0.724 for e-satisfaction. The value of Cronbach’s alpha lies between 0 to 1, with values from 0.7 – 0.8 considered to be acceptable for scale reliability (Field, 2009). All the values of Cronbach’s alphas are greater than .7 and close to .8 that is the acceptable range for the scales to be reliable. Once the reliability of the scales was established Keiser-Meyer-Olkin (KMO – Test for sample size adequacy) and Bartlett’s (Test of Sphericity) statistic were checked for the given sample, take in table 2.

**Table 1: Demographic characteristic of sample**

No.	Variable	Categories	Freq.	Percent	No.	Variable	Categories	Freq.	Percent
1	Gender	Male	110	61.80	4	Occupation	Self employed	13	7.30
		Female	63	35.39			Salaried	111	62.36
		Missing	5	2.81			Student or Unemployed	51	28.65
2	Age Group	18-25	51	28.65	5	Income Group	Missing	3	1.69
		26-30	62	34.83			no income	6	3.37
		31-36	40	22.47			<10000	21	11.80
		>36	22	12.36			10-20k	26	14.61
		Missing	3	1.69			20-30k	41	23.03
		UG	32	17.98			30-40k	32	17.98
3	Education Level	PG	71	39.89	>40k	42	23.60		
		Scholar/Phd	72	40.45	Missing	10	5.62		
		Missing	3	1.69					

**Table 2: KMO and Bartlett's Test**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>		<b>0.851</b>
	Approx. Chi-Square	1176.187
<b>Bartlett's Test of Sphericity</b>	Df	105
	Sig.	0

The KMO test is conducted to assess the sample adequacy in terms of size. The value of KMO statistic lies between 0 and 1. Keiser (1974) recommends that a value greater than 0.5 is merely acceptable, from 0.5 – 0.7 it is mediocre, values between 0.7 - 0.8 as good where as values between 0.8 - 0.9 are great and value greater than 0.9 as superb. The KMO statistic was .851, this value can be considered great according to Keiser's (1974) recommendation to perform EFA. Bartlett's Test of Sphericity examines whether the population correlation matrix is an identity matrix (no correlation between variables). The null hypothesis is that there is no correlation between the variables in the population. Whereas the alternate hypothesis is that there exists a significant correlation between the variables in the population. The Bartlett's test was found to be significant with high Chi Square value of 1176.187 with 105 degrees of freedom and p-value .000, the significant value means null hypothesis is rejected in favor of alternate and it may be concluded that the population correlation matrix is not identity matrix hence there is sufficient correlation between the items to perform EFA. The significance of Bartlett's test necessitates assessing of high multicollinearity or singularity in the population. Field (2009) recommends that highly correlated variables create problems in determining the unique contribution of the variables on to the factors. To assess the multicollinearity in the sample determinant of the R-matrix is analyzed and its value should be more than .00001. This value for the given sample was found to be .001. This means that multicollinearity would not create any problem in performing EFA.

Once the reliability and basics for EFA were found satisfactory an initial round of EFA was done without any rotation and keeping the cut off eigenvalue of 1. This analysis yielded a three

factor solution with 60.89% of the variability in the variables being explained. To interpret the factors better first varimax rotation was applied again giving a three factor solution with redistribution of the explained variance. The results of the varimax rotation are satisfactory only if obtained transformation matrix is symmetric (all off-diagonal elements are same). It was found that component transformation matrix was not a symmetric one, implying that the orthogonal rotation is not appropriate. Since the factors considered in the study are part of the e-environment they may correlate among themselves. Therefore oblique rotation was used with Direct Oblimin as recommended by (Field, 2009). At the outset Keiser (1960) criteria of eigenvalue more than 1 was used to extract the factors that yielded a three factor solution that was unsatisfactory according to the study.

Keiser's criterion is acceptable when there is either less than 30 variables and all extracted communalities are all greater than 0.7 or in the case where the sample size exceeds 250 and the average communality after extraction is more than 0.6. The communalities after extraction for the sample collected are not greater than 0.7 and average communality was 0.609. In this case both the above mentioned conditions are not met, take in appendices. The criterion of scree plot was also not very much informative as there was no sharp point of inflexion. Since the factors did not converge satisfactorily, Jolliffe's (1972, 1986) criterion of retaining all factors having eigenvalues greater than 0.7 was used. According to Jolliffe (1972, 1986) all factors having eigenvalues greater than 0.7 should be retained since Kaiser's criterion is very strict and may miss out on certain important factors. When Jolliffe's criterion was used with Direct Oblimin method of Oblique rotation, SPSS extracted six factors explaining 77.49% of variance in the model, take in table 3.



**Table 3: Total variance explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.936	39.572	39.572	5.936	39.572	39.572
2	2.149	14.326	53.898	2.149	14.326	53.898
3	1.050	6.998	60.896	1.050	6.998	60.896
4	0.921	6.137	67.033	.921	6.137	67.033
5	0.821	5.470	72.503	.821	5.470	72.503
6	0.748	4.988	77.491	0.748	4.988	77.491

**Table 4: Factor loadings – rotated component pattern matrix**

Variables	Component/Factors					
	1 Per. Value	2 Conv.	3 Mer.-1	4 Fin. Tran.	5 e-Sat	6 Mer.-2
Reasonable prices w.r.t. quality	0.928					
Value for money	0.846					
Better value than competitors	0.802					
Ease of browsing		0.862				
Convenience		0.837				
Convenience of time		0.753				
Variety of offerings			-0.871			
Quality of information			-0.860			
Number of offerings			-0.542			
Financial Security				-0.924		
Ease of Payment				-0.791		
eSatisfaction3					0.939	
eSatisfaction2					0.518	
eSatisfaction1					-	
Quantity of information						0.760

*Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization. Rotation converged in 16 iterations.*

Although five factors model was proposed as a priori, EFA with oblique rotation and Joliffe's criterion for extraction of factors with interpreting factors loadings of more than .512 (in sample size of below 200 – Steven, 1992), suggested a six factors model as more appropriate, take in table 4.

Hence six factors solution was accepted for the given sample since the variance explained was almost 78% which is quite considerable and all the extracted communalities were close to 0.7 with an average of 0.775 signifying explanation

of considerable amount of variance in the variables. The factor loadings of different variables on to six extracted factors are shown, take in table 5. It is evident from EFA that merchandising should be measured by two separate factors instead of one factor. And out of three instruments used to measure e-sat only two loaded meaningfully to the construct while the third one cross loaded on to a wrong construct with loading of 0.432. But when the Steven's cut off of 0.512 was applied it did not load to any factor, leading to its drop in the analysis.

**Impact of Demographic Factors on E-satisfaction and its Determinant – Findings and Results Exploring the Effect of Gender**

The effect of gender is explored through t-test as gender has only two categories. The following hypothesis was formulated:

H1: Gender has a significant impact on e-satisfaction and its determinants.

Since there are six identified constructs including e-satisfaction six different t test were employed. The results are shown in table 5.

It is clear from the table V that only the test is significant only for convenience. Therefore gender has a significant impact only on convenience.

**Exploring the Effect of Age**

The effect of age is explored through ANOVA as it has more than two categories. The following hypothesis was formulated:

H2: Age has a significant impact on e-satisfaction and its determinants.

ANOVA was applied separately for each identified constructs including e-satisfaction. The results are shown in table 6.

It is clear from the table that F test is significant only for perceived value. Therefore age has a significant impact only on perceived value.

Table 5: Effect of gender

Independent Samples t-Test							
	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
						Lower	Upper
E-Satisfaction	-0.519	169	0.604	-0.137	0.26489	-0.66048	0.38535
Merchandising1	0.689	168	0.492	0.260	0.378	-0.486	1.006
Merchandising2	-0.675	169	0.500	-0.093	0.137	-0.363	0.178
Convenience	2.969	168	0.003	1.342	0.452	0.450	2.234
Perceived Value	-0.789	168	0.431	-0.277	0.351	-0.971	0.416
Financial Transaction	-0.818	166	0.414	-0.230	0.28137	-0.78581	0.32526

Table 6: Effect of age

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
E-Satisfaction	Between Groups	10.613	3	3.538	1.199	0.312
	Within Groups	498.600	169	2.950		
	Total	509.214	172			
Merchandising1	Between Groups	4.484	3	1.495	0.236	0.871
	Within Groups	1064.493	168	6.336		
	Total	1068.977	171			



<b>Merchandising2</b>	Between Groups	1.751	3	0.584	0.772	0.511
	Within Groups	127.729	169	0.756		
	Total	129.480	172			
<b>Convenience</b>	Between Groups	23.129	3	7.710	0.917	0.434
	Within Groups	1412.982	168	8.411		
	Total	1436.110	171			
<b>Perceived Value</b>	Between Groups	1.297	3	0.432	0.087	0.967
	Within Groups	837.558	168	4.985		
	Total	838.855	171			
<b>Financial Transaction</b>	Between Groups	2.133	3	0.711	0.214	0.886
	Within Groups	550.978	166	3.319		
	Total	553.112	169			

**Table 7: Effect of education**

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
<b>E-Satisfaction</b>	Between Groups	30.149	3	10.050	3.545	0.016
	Within Groups	479.065	169	2.835		
	Total	509.214	172			
<b>Merchandising1</b>	Between Groups	64.171	3	21.390	3.576	0.015
	Within Groups	1004.806	168	5.981		
	Total	1068.977	171			
<b>Merchandising2</b>	Between Groups	2.279	3	.760	1.009	0.390
	Within Groups	127.201	169	.753		
	Total	129.480	172			
<b>Convenience</b>	Between Groups	42.196	3	14.065	1.695	0.170
	Within Groups	1393.915	168	8.297		
	Total	1436.110	171			
<b>Perceived Value</b>	Between Groups	24.479	3	8.160	1.683	0.173
	Within Groups	814.376	168	4.847		
	Total	838.855	171			
<b>Financial Transaction</b>	Between Groups	17.807	3	5.936	1.841	0.142
	Within Groups	535.305	166	3.225		
	Total	553.112	169			

**Exploring the Effect of Education**

The effect of education is explored through ANOVA as it also has more than two categories. The following hypothesis was formulated:

H3: Income has a significant impact on e-satisfaction and its determinants.

Since there are six identified constructs including e-satisfaction ANOVA was applied separately for each identified constructs. The results are shown in table 7.

The F test is significant for e-satisfaction and merchandising1. Therefore education of online customers has impact only on these factors.

**Exploring the Effect of Occupation**

ANOVA was employed to determine the effect of Occupation since it was also having more than two categories. The following hypothesis was formulated:

H4: Occupation has a significant impact on e-satisfaction and its determinants.

ANOVA was applied separately for each identified constructs. The results are shown in table 8.

The p value for F test is non-significant for all of the constructs. Therefore the occupation or the employment status does not effects e-satisfaction and its determinants at all.

**Exploring the Effect of Income**

Since income was also having more than two categories ANOVA was employed to determine the effect of income. The following hypothesis was formulated:

H5: Income has a significant impact on e-satisfaction and its determinants.

ANOVA was applied separately for each identified constructs. The results are shown in table 9.

It is clear from the table that F test is significant only for Financial Transaction. Therefore age has a significant impact only on perceived value.

**Table 8: Effect of occupation**

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
<b>E-Satisfaction</b>	Between Groups	0.672	2	0.336	0.112	0.894
	Within Groups	508.542	170	2.991		
	Total	509.214	172			
<b>Merchandising1</b>	Between Groups	3.853	2	1.927	0.306	0.737
	Within Groups	1065.124	169	6.303		
	Total	1068.977	171			
<b>Merchandising2</b>	Between Groups	1.114	2	0.557	0.738	0.480
	Within Groups	128.365	170	0.755		
	Total	129.480	172			
<b>Convenience</b>	Between Groups	33.443	2	16.722	2.015	0.137
	Within Groups	1402.667	169	8.300		
	Total	1436.110	171			
<b>Perceived Value</b>	Between Groups	6.278	2	3.139	0.637	0.530
	Within Groups	832.576	169	4.926		
	Total	838.855	171			
<b>Financial Transaction</b>	Between Groups	3.514	2	1.757	0.534	0.587
	Within Groups	549.597	167	3.291		
	Total	553.112	169			

**Table 9: Effect of income**

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
<b>E-Satisfaction</b>	Between Groups	20.672	5	4.134	1.429	0.216
	Within Groups	462.822	160	2.893		
	Total	483.494	165			
<b>Merchandising1</b>	Between Groups	52.346	5	10.469	1.673	0.144
	Within Groups	994.891	159	6.257		
	Total	1047.236	164			
<b>Merchandising2</b>	Between Groups	3.397	5	0.679	0.886	0.492
	Within Groups	122.747	160	0.767		
	Total	126.145	165			
<b>Convenience</b>	Between Groups	47.985	5	9.597	1.137	0.343
	Within Groups	1350.955	160	8.443		
	Total	1398.940	165			
<b>Perceived Value</b>	Between Groups	29.323	5	5.865	1.175	0.324
	Within Groups	798.461	160	4.990		
	Total	827.783	165			
<b>Financial Transaction</b>	Between Groups	16.983	5	3.397	1.035	0.399
	Within Groups	515.189	157	3.281		
	Total	532.172	162			

## DISCUSSION AND IMPLICATIONS

The hypothesis testing reveals some interesting findings regarding the impact of demographic factors on e-satisfaction and its determinants. No demographic factor was found to impact all the identified determinants. Therefore no hypothesis was accepted totally. All the demographic factors were having impact on either one or two identified constructs among all six of them. Gender was found to have impact on convenience of online shopping. The mean value of convenience for males was significantly higher than females signifying that males are more interested in the convenience of online shopping. This is against the common perception that females shop more online because of convenience factor. This imply that online retailers should focus more on the

convenience factors while formulating marketing strategies for male customers and products and services targeted at male population.

The impact of age was significant only for the Perceived Value of online products and services. Therefore it may concluded as the age of online consumers increases they become more interested in the value they are getting from online transactions. This shows that mature customers are interested more in the overall economic benefits they get from online shopping. This finding has implication on marketing strategies for higher age group customers. The marketing pitch for such customers should be focused on the overall economic benefit of the online transactions.

The third demographic factor was the education of online customers, the effect of

education was found significant for e-satisfaction as well as the merchandising. Highly educated online customers are more interested in the merchandising component of the offerings. They give more importance to the variety, assortment and the quality of information present on the website. It is in accordance with the established fact that educated customers are more aware about the products and services they buy. Similarly education level was also found to have a significant impact on satisfaction level. This finding has very important implications for the marketing planning for educated customers. The strategies for such customers should focus more on the merchandising component specifically on variety of the products and services, assortment level in each category of product and quality of the information provided.

Next demographic factor considered was the occupation or employment status of online customers. Interestingly all the identified constructs were found to be independent of the occupation of the consumers. Hence no special customization is required for charting strategies depending upon the employment status or the occupation of the customers. Therefore it was found that occupation status does not have impact either on e-satisfaction or its determinants. The last demographic factor was income of the customers and it was found that it has significant effect on the financial transaction perception of the customers. Therefore, as the income level of the consumer increases the worry for financial security increases. This finding implies that website should offer more security specifically to the high transaction value. More options like swipe on delivery or payment through gateways not involving personal financial details should be included in payment options.

## CONCLUSION

Demography of the online consumers becomes important since e-retailing is moving towards what we can call a phenomenon of 'Mass Customization'. The reach of the internet at personal level makes it possible for the online retailers to tailor their offerings exactly according to the need of customers. Having knowledge about the impact of demographic factors like gender, age, education and income

etc. on different aspects of online buying behavior of consumers would surely give the marketers the tools to compete and sustain in the era of tough competition. This research explores the impact of different demographic factors in shaping the satisfaction in online retailing. This study brings about the importance of role of certain demographic factors like gender, age, education and income on different determinants of satisfaction in online retailing. The research paper contributes to the body of knowledge by determining the structures of the determinants of e-satisfaction and how they are affected by the demography of the online consumers. This study may give a platform for further research into the role and impact of demography on perceptions of quality of services, perceived value of online retailing, the antecedents of satisfaction and loyalty in e-tailing space and even to post loyalty behavior.

## REFERENCES

- Anderson, E. W., Claes, F. and Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58, pp. 53-66.
- Anderson, R. E. and Srinivasan, S. S. (2003). E-satisfaction and E-loyalty: A Contingency Framework. *Psychology and Marketing*, 20 (2), pp. 123-138.
- Bhattacherejee, A. (2001). An Empirical Analysis of the Antecedents of Electronic Commerce Service Continuance. *Decision Support Systems*, 32, pp. 201-214.
- Bitner, M. J., Brown, S. W. and Meuter, M. L. (2000). Technology Infusion in Service Encounters. *Journal of the Academy of Marketing Science*, 28 (Winter), pp. 138-149.
- Burke, R. R. (2002). Technology and the Customer Interface: What Consumers Want in the Physical and Virtual Store? *Journal of the Academy of Marketing Science*, 30 (Fall), pp. 411- 432.
- Carlson, J., O'Cass, A. and Ahrholdt, D. (2015). Assessing Customers' Perceived Value of the Online Channel of Multichannel Retailers: A Two Country Examination. *Journal of Retailing and Consumer Services*, 27 (2015), pp. 90-102.
- Chang, H. H. and Wang, H. (2011). The Moderating Effect of Customer Perceived Value on Online Shopping Behavior. *Online Information Review*, 35 (3), pp. 333-359.
- Crisil Research (2014, Feb.). Crisil Opinion, E-Tails Eats into Retail. Available: [http:// www.crisil.com/pdf/research/CRISIL-Research-Article-Online-Retail-Feb14.pdf](http://www.crisil.com/pdf/research/CRISIL-Research-Article-Online-Retail-Feb14.pdf).

- Deloitte and Assocham, (2014). Future of E-Commerce: Uncovering Innovation. Available: <http://www.deloitte.com/in>.
- Evanschitzky, H., Iyer, G.R., Hesse, J. and Ahlert, D. (2004). E-Satisfaction: A Re-examination. *Journal of Retailing*, 80 (2004), pp. 239-247.
- Field, A. P. (2009). *Discovering Statistics Using SPSS*, London, England: Sage.
- Flipkart (n.d.). The E-Commerce Market in India. Available: <http://www.flipkartcareers.com/work-in-india.php>.
- How the Big Online Sales Fared (2016, October 4). *Ascent, Times of India*, p. 24.
- Jolliffe, I. T. (1972). Discarding Variables in a Principal Component Analysis, I: Artificial Data. *Applied Statistics*, 21, pp. 160-173.
- Jolliffe, I. T. (1986). *Principal Component Analysis*, New York: Springer.
- Kass, R. A. and Tinsley, H. E. A. (1979). Factor Analysis. *Journal of Leisure Research*, 11, pp. 120-138.
- Kaiser, H. F. (1960). The Application of Electronic Computers to Factor Analysis. *Educational and Psychological Measurement*, 20, pp. 141-151.
- Kaiser, H. F. (1974). An Index of Factorial Simplicity. *Psychometrika*, 39, pp. 31-36.
- Kim, J. H., Kim, M. and Kandampully, J. (2007). The Impact of Buying Environment Characteristics of Retail Websites. *Service Industries Journal*, 27 (7), pp. 865-880.
- Kim, J. H., Kim, M. and Kandampully, J. (2011). Buying Environment Characteristics in the Context of E-Service. *European Journal of Marketing*, 43 (9-10), pp. 1188-1204.
- Liu, X., He, M., Gao, F. and Xie, P. (2008). An Empirical Study of Online Shopping Customer Satisfaction in China: A Holistic Perspective. *International Journal of Retail and Distribution Management*, 36 (11), pp. 919-940.
- Nunnally, J. C. (1978). *Psychometric Theory*, New York: McGraw-Hill.
- Oliver, R. L. (1981). Measurement and Evaluation of Satisfaction Processes in Retail Settings. *Journal of Retailing*, 57, pp. 25-48.
- Oliver, R. L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*, New York: McGraw-Hill.
- Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, 63 (Special Issue), pp. 33-44.
- Parasuraman, A., Zeithaml, Valerie A. and Berry, Leonard L. (1988). SERVQUAL: A Multi-Item Scale for Measuring Consumer Perception of Service Quality. *Journal of Retailing*, 64 (1), pp. 12-40.
- Parasuraman, A., Zeithaml, V. A. and Malhotra, A. (2005). E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 7 (10), pp. 1-21.
- PWC India. (2015, Feb.). E-Commerce in India: Accelerating Growth. Available: <http://www.pwc.in>.
- Ribbink, D., VanRiel, A. C. R., Liljander, V. and Streukens, S. (2004). Comfort Your Online Customer: Quality, Trust and Loyalty on the Internet. *Managing Service Quality*, 14 (6), pp. 446-456.
- Schaupp, L. C. and Bélanger, F. (2005). A Conjoint Analysis of Online Consumer Satisfaction. *Journal of Electronic Commerce Research*, 6 (2), pp. 95-111.
- Shwu-Ing, W. (2003). The Relationship between Consumer Characteristics and Attitude toward Online Shopping. *Marketing Intelligence and Planning*, 21 (1), pp. 37-44.
- Siddiqui, U. A. and Khan, M. S. (2014). E-Tailing in India: Prospects and Challenges. In Gera, N. (Eds.), *Managing Organizations of Tomorrow by Capitalizing Generation Next*, Vol.: 1, New Delhi, India: Bharti Publications, pp. 159-172.
- Siddiqui, U. A. and Khan, M. S. (2016). Antecedents of E-Satisfaction in Online Retailing: A Conceptual Framework. *Ottoman: Journal of Tourism and Management Research*, Vol.: 1, pp. 155-165.
- Sweeney, J. C. and Soutar, G. N. (2001). Consumer-Perceived Value: The Development of a Multiple Item Scale. *Journal of Retailing*, 77 (2), pp. 203-220.
- Srinivasan, S. S. and Anderson, R. E. (2002). Customer Loyalty in E-commerce: An Exploration of Its Antecedents and Consequences. *Journal of Retailing*, 78, pp. 41-50.
- Stevens, J. P. (2002). *Applied Multivariate Statistics for the Social Sciences*, NJ: Hillsdale.
- Winer, R. S. (2001). A Framework for Customer Relationship Management. *California Management Review*, 43, pp. 89-105.
- Wolfenbarger, M. and Gilly, M. C. (2003). etailQ: Dimensionalizing, Measuring and Predicting, etail Quality. *Journal of Retailing*, 79 (3), pp. 183-98.
- Yang, Z. and Peterson, R. T. (2004). Customer Perceived Value, Satisfaction, and Loyalty: The Role of Switching Costs. *Psychology and Marketing*, 21 (10), pp. 79-822.
- Yoo, B. and Donthu, N. (2001). Developing a Scale to Measure the Perceived Quality of an Internet Shopping Site. *Quarterly Journal of Electronic Commerce*, 2 (1), pp. 31-46.
- Zeithaml, V. A., Berry, L. L. and Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60 (April), pp. 31-46.
- Zeithaml, V. A. and Bitner, M. J. (1996). *Customer Expectations of Services: Services Marketing*. New York: McGraw Hill.