

An Exploration of Consumer Buying Behavior towards E-tailing: Working Paper Series – I

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ABSTRACT

This study is the first in the two paper series on online buying behavior. The main purpose of this first study is to explore the online buying behavior on the basis of certain identified online behavior characteristics viz. online shopping frequency, most visited website or online retailer, any purchase in last three months, average purchase in last three months, buying behavior from more than one website, smart phone usage and its preference, perception of online shopping about time management and to find out most and least purchased product categories through online shopping. The study is based on primary data collected from 410 respondents from Lucknow and nearby areas. The data was collected through a structured questionnaire survey devised for the purpose. The survey was administered conveniently and purposively to the identified online shoppers. It consists of two sections first related to demography and the second exploring the online buying behavior characteristics. The descriptives related online buying characteristics were studied employing the tools of frequency, percentage, mean and standard deviation. It was found that majority of the customers visit any website either 2-4 times a week or daily. Flipkart was rated as top visited website followed by Amazon and Snapdeal respectively. Most of the customers visiting any website had made a purchase in last three months with an average online expense of Rs. 4907. The findings show majority of the customers regularly visit more than one website. A very strong majority, 82% of the customers use smart phone whereas 69% of the smart phone users prefer it for shopping. The time saving perception of online shopping was also found to be prevalent among the customers. The findings indicate that clothing, apparel, footwear & accessories is the most purchased category, computers, mobiles, tabs & accessories is the 2nd most purchased category. This study discussed the descriptives related to online buying behavior characteristics. The next study in this paper series will try to determine the impact of demographic factors on these online buying behavior characteristics.

Key Words: Online Buying Behavior, Buying Characteristics and E-Tailing.

1. INTRODUCTION

As per Technopak Analysis, 2013 the size of overall retail market in India was USD 490 billion in 2012 (gross merchandise value). With the estimated India’s GDP growth rate pegged at an average of 6% in the next decade, the merchandise retail market growth is expected to follow the same pattern and grow from USD 490 billion in 2012 to USD 1440 billion in 2021. The retail market here constitutes three types of retail sales:

- Traditional Retail: Unorganised Form – Brick and Mortar (Convenience/Mom and Pop/ Grocery or General stores).
- Corporatized Retail: Organised Form – Brick and Mortar.
- Corporatized Retail: Organised Form – E-Tailing.

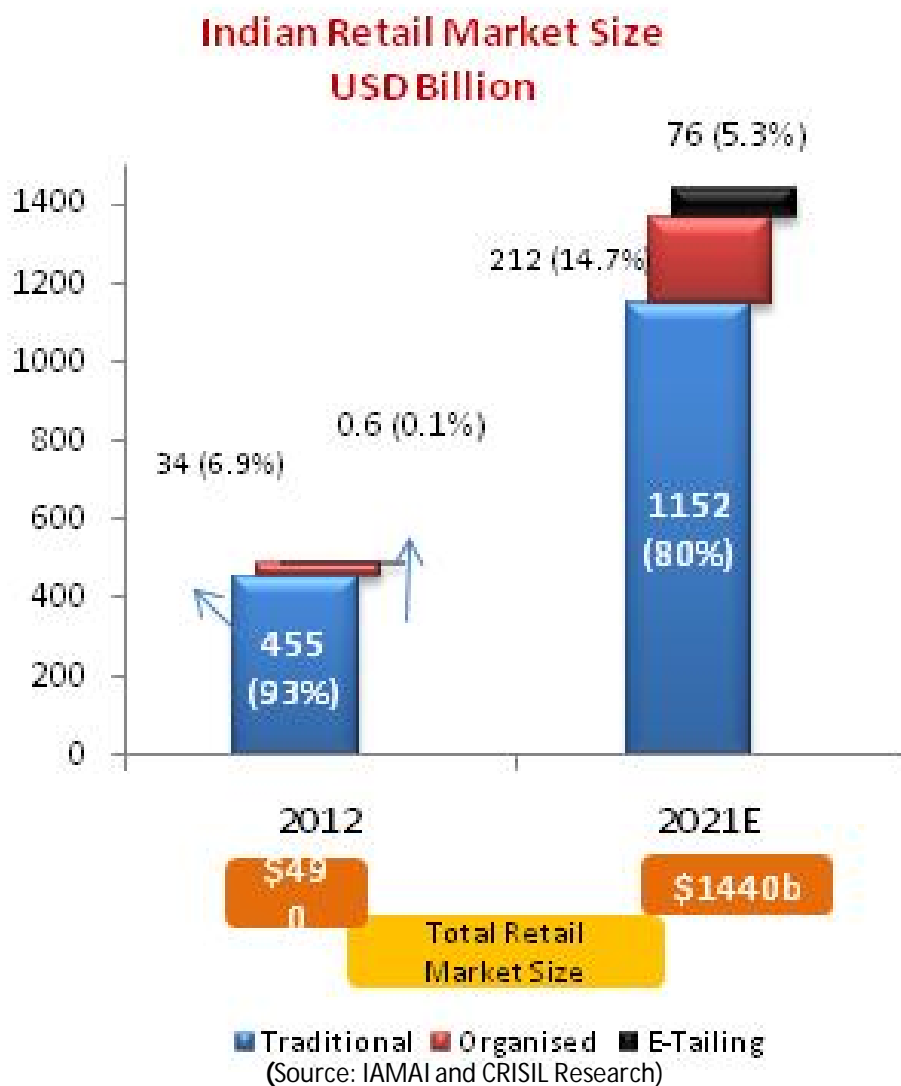


Figure 1: Growth of E-Tailing in India

Of the USD 490 billion of retail market, traditional retail contributes USD 455 billion that is 93% to the total retail market, the organised retail sales contributed 6.9% whereas e-tailing represented a meager 0.1% that amounts to USD 0.6 billion only. The share of corporatized retail was only 7% of the total retail market size.

However these figures are going to transform in the coming decade. It is estimated that in 2021 the retail market would grow to USD 1440 billion with a drastically changed composition. The corporatized or organised retail would grow in absolute terms from USD 34.6 billion to USD 288 billion by 2021 and its share in the total retail will increase from 7% to 20% a three-fold growth within a period of 8 years.

2.OBJECTIVES

The main objective of the study is to explore the consumer buying behavior in online context. The online buying behavior was explored through different characteristics related to online purchasing. The characteristics considered in the present study are shown below and discussed one by one henceforth. The specific objective of the study is to analyse the online buying behavior through following online purchase characteristics respectively:

- i. Online Shopping Frequency
- ii. Most Visited Website or Online Retailer
- iii. Average Purchase in Last 3 Months, if any
- iv. Buying Behavior from more than 1 Website
- v. Smart Phone Usage and Preference

vi. Perception of Online Shopping about Time Management

vii. Most and Least Purchased Product Categories

3. METHODOLOGY

The research methodology for the study is covered in three parts viz. observational design or data collection, sample design and statistical design. Primary data was collected through a structured questionnaire with close ended questions. The first section contained the demographic details of the online consumers whereas the second section recorded the characteristics related to online behavior. The respondent was any person involved in online shopping. Data was collected through both online and personal mode. The questionnaire was hosted on Google forms and administered personally. The sample was selected using convenience and purposive sampling methods. To reach the online shoppers more effectively snowballing technique was also employed. The respondents include salaried persons, students, business owners, teachers and others. After continuous follow up 423 responses were received and after data cleaning a sample size of 410 was finally considered for analysis. As far as statistical design is concerned the tools of frequency, percentage and graphical analysis is done to explore the online behavior. Other tools like mean, standard deviation and ranking as per the mean are used as per the requirement.

1. DATA ANALYSIS AND RESULTS

The above mentioned characteristics related to online buying behavior are discussed henceforth:

i. Online Search/Shopping Frequency

		Freq.	%
Valid	once a month	123	30
	once a week	63	15.4
	2-4 times a week	98	23.9
	Daily	123	30
Total		407	99.3
Missing		3	0.7
Total		410	100

30% of the respondents use internet either for search or shop daily whereas the other 30% use it only once a month. The frequency of shopping of rest of the sample lies between daily and once a month with 15.4% using internet once a week and the remaining 23.9% have a frequency of 2-4 times a week. The distribution is shown graphically in the below figure 2.



Figure 2: Shopping Frequency

ii. Most Visited Online Retailer

		Freq.	%
Valid	Amazon	106	25.9
	Flipkart	176	42.9
	Snapdeal	28	6.8
	Paytm	7	1.7
	Myntra	35	8.5
	Shopclues	9	2.2
	Others	24	5.9
	Total	385	93.9
Missing		25	6.1
Total		410	100

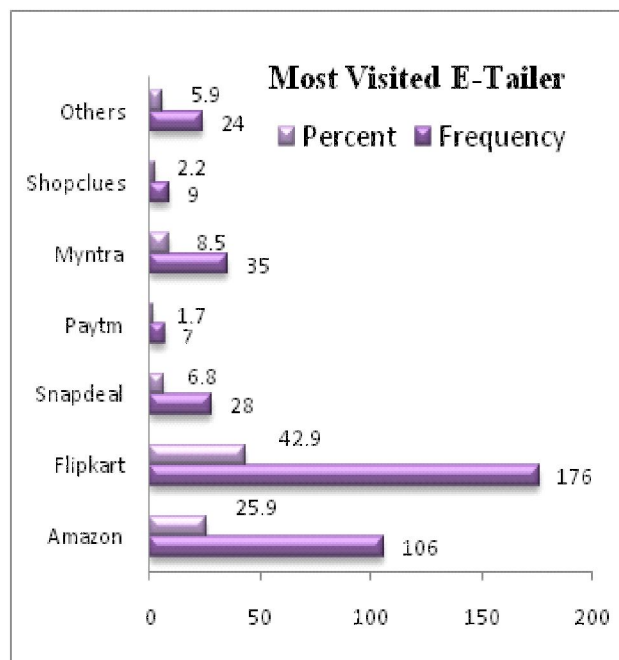


Figure 3: Most Visited E-Tailer

This was an open ended question therefore respondents have themselves written the names of the websites while not having any choice. So whatever results have been shown it's the choice of respondents. The most visited website was that of Flipkart with 42.2%, followed by Amazon 25.9% , and then the likes of Snapdeal and Myntra. It is best depicted in below figure 3.

i. Any purchase/average in last 3 months

		Frequency	Per cent
Valid	yes	344	83.9
	no	62	15.1
	Total	406	99
Missing		4	1
Total		410	100
Avg. purchase in last 3 months Descriptive Statistics			
		Mean	Std. Deviation
Avg. purchase in last 3 months '000, in Rs			
Valid N 408		4.9079	8.66538
Minimum	0		
Maximum	100		

The above table shows that 83.9% of the respondents in the sample have made some kind of purchase in the last three months whereas 15.1% didn't buy anything in the last three months. The average value of purchase for the respondents was Rs. 4907.9 which is a substantial amount. The minimum buying amount is 0.00 which means that the respondent had not made any purchase in 3 months while the maximum is 100,000. This means that customers are not hesitant of buying high value products online. The standard deviation is quite high, this is due to the fact that the maxima and minima are very extreme values. It may appear that the high mean is due to the one or two extreme values but this is not true. The mean was also calculated after

removing the value of 100,000 and it was found that the mean value was Rs. 4662.8 which again is not significantly different from the original mean of Rs. 4907.

V. Perception of Online Shopping about Time Management

		Frequency	Percent
Valid	yes	373	91
	no	33	8
	Total	406	99
Missing		4	1
Total		410	100

Interestingly 91% of respondents have the perception that shopping online help in time management in today's busy world.

Vi. Buying from more than 1 Website

		Frequency	Percent
Valid	yes	231	56.3
	no	174	42.4
	Total	405	98.8
Missing			
Total		410	100
If yes, how many? (yes = 231, 56.3%)			
If yes, how many?	Frequency	Percent of total (410)	
Valid	2	53	22.9
	3	37	16
	4	10	4.3
	5	8	3.5
Missing		123	53.2
Total (yes)		231	100

The next characteristic related to online behavior assessed was that of buying habits of consumers from more than one website. It was found that 56.3% of the respondents were involved in the habit of buying from more than one website. Out of those 56.3% only 26.3% responded to the question of how many websites they buy from. Out of those who responded 23% buy from 2 websites, 16%, 4% and 4% buy from 3, 4 and 5 number of websites. It shows that more than half of the respondents were in a habit of buying from more than two websites.

vii. Smart Phone Usage and Preference

It was observed that 82% of the respondents use smart phone for online shopping. Interestingly not all those shopping through smart phones prefer it. Only 69.8% were found to prefer this mode of shopping which is a part of m-commerce or mobile commerce

Table 6: Do you use smart phone applications for online shopping?			
		Frequency	Percent
Valid	yes	336	82
	no	72	17.6
	Total	408	99.5
Missing		2	0.5
Total		410	100
Do you prefer shopping through smart phone applications?			
Smartphone Preference		Frequency	Percent
Valid	yes	286	69.8
	no	122	29.8
	Total	408	99.5
Missing		2	0.5
Total		410	100

viii. Most and Least Purchased Categories

To study the pattern of most and least purchased products from e-tailers five major categories were chalked out. These categories were chosen on the basis of initial talks with the online buyers asking them about the most purchased products online. An initial survey of online retailers was also conducted to study most advertised and most emphasized products. These five categories are:

i.	Consumer Durables/Household Appliances
ii.	Computers, Mbbiles, Tab & accessories
iii.	Clothing/Apparel/Footwear & accessory
iv.	Personal Care/Beauty/Health
v.	Other Products, Pls. mention.....

The respondents were asked to rank each category in order of their online shopping frequency. The ranks provided were from 1 to 5, with 1 meaning the most purchased and 5 corresponding to the least purchased category while the values with 2 to 5 means a purchase frequency between these extreme categories with decreasing rate of purchase. This practice makes this question an ordinal one with relative rankings of categories by each respondent. Hence these categories were relatively ranked by each respondent with any one category to be most purchased and some other category being least purchased and the other categories in between 'most' and 'least'. In the process each category was treated as a separate variable. The frequency and percentage of the ranks related to each category is given table 7.

The percentages for different categories are:
Consumer Durables, Household Appliances:

8.3% respondents ranked it as most purchased category and 11.5% ranked it as least purchased category while 12.7%, 18% and 17.3%

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Categories		Consumer Durables, Household Appliances		Computers, Mobiles, Tabs & Accessories		Clothing, Apparel, Footwear & Accessories		Personal Care, Beauty & Health		Others	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Purchase Rankings	1 - Most purchased	34	8.3	84	20.5	130	31.7	28	6.8	13	3.2
	2	52	12.7	59	14.4	70	17.1	72	17.6	13	3.2
	3	74	18	58	14.1	43	10.5	59	14.4	30	7.3
	4	71	17.3	56	13.7	28	6.8	78	19	40	9.8
	5 - Least	47	11.5	26	6.3	14	3.4	44	10.7	138	33.7
Valid	Total	278	67.8	283	69	285	69.5	281	68.5	234	57.1
Missing		132	32.2	127	31	125	30.5	129	31.5	176	42.9
Total		410	100	410	100	410	100	410	100	410	100

Computers, Mobiles, Tabs & Accessories: 20.5% respondents ranked it as most purchased category and 6.3% ranked it as least purchased category while 14.4%, 14.1% and 13.7% respondents ranked it as 2nd, 3rd, and 4th ranked category.

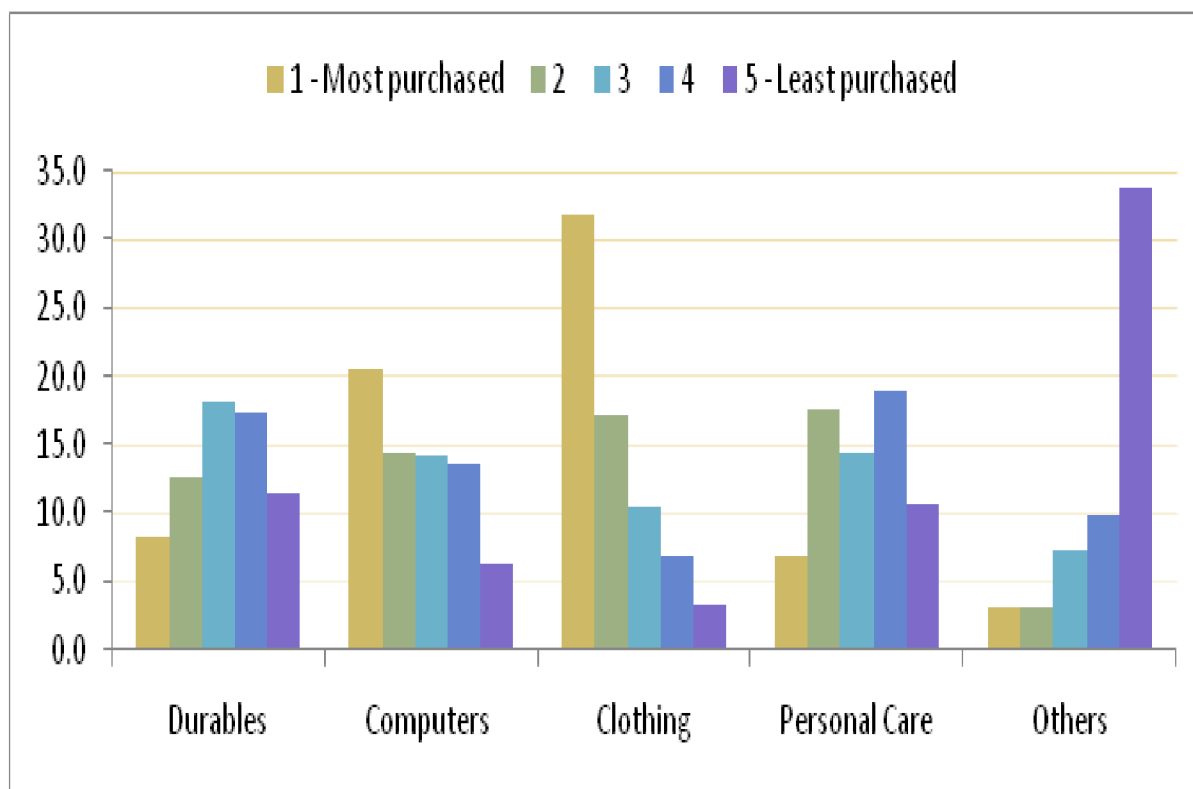
Clothing, Apparel, Footwear & Accessories: 31.7% respondents ranked it as most purchased category and 3.4% ranked it as least purchased category while 17.1%, 10.5% and

6.8% respondents ranked it as 2nd, 3rd, and 4th ranked category.

Personal Care, Beauty & Health: 6.8% respondents ranked it as most purchased category and 10.7% ranked it as least purchased category while 17.6%, 14.4% and 19% respondents ranked it as 2nd, 3rd, and 4th ranked category.

Others: 3.2% respondents ranked it as most purchased category and 33.7% ranked it as least

purchased category while 3.2%, 7.3% and 9.8% respondents ranked it as 2nd, 3rd, and 4th ranked category. The graphical representation is shown below in figure 4:



To find out the overall and actual most purchased category as ranked by the consumers a mean ranking was calculated for each category of products. The categories were rated as most purchased to least purchased on the basis of the mean ranking value. As discussed earlier the rankings were from 1 to 5 and since ‘1’ means most purchased category and ‘5’ the least purchased category. Therefore the category with lowest mean was the most purchased category while the category with highest mean ranking was the least purchased one. The mean rankings arranged in ascending order are:

SN	Category No.	Categories	Mean
1	iii	Apparel, Footwear & Accessories	2.04
2	iii	Computers, Mobiles, Tabs & Accessories	2.58
3	iv	Personal Care, Beauty & Health	3.14
4	i	Consumer Durables, Household Appliances	3.16
5	v	Others	4.18

It is clear from table 8 that Clothing, Apparel, Footwear & Accessories is the most purchased category, Computers, Mobiles, Tabs & Accessories is the 2nd most purchased category, Personal Care, Beauty & Health is the 3rd most purchased category, Consumer Durables,

Household Appliances is 4th while ‘Others’ is the least purchased category. In this particular case Consumer Durables, Household Appliances may be said to be the least purchased category if ‘Others’ is excluded. The results are also shown in the figure 5.

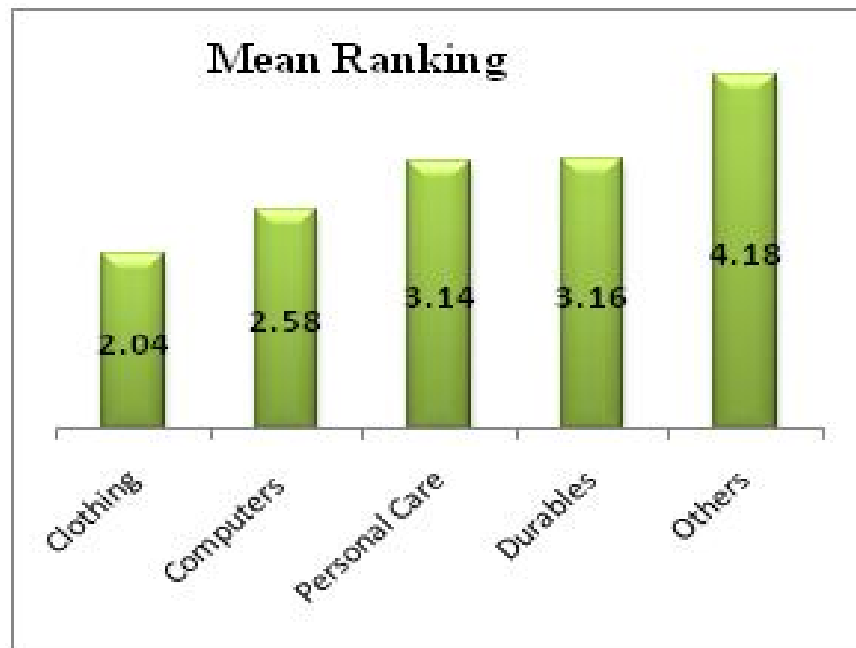


Figure 5: Most/Least Purchased Categories Mean Ranking

5. Discussions and Conclusions

As per the latest trends the online search or shopping frequency has been increasing in India. It is also reflected in the observed sample that 30% of the respondents visit internet for search or shopping once a month, whereas 15% once visit a week. 24% respondents visit 2-4 times a week and 30% visit daily. It may be inferred that more than 50% of the respondents visit any website either 2-4 times a week or daily. In fact online shopping applications and low mobile data rates have made it possible to visit the websites more than once daily. Some of the respondents even told that they visit 3 to 4 times daily. These data show a significant increase in the frequency of online shopping. The next characteristic assessed was most visited website, among many online retailers it was observed that Flipkart was rated as top visited website followed by Amazon and Snapdeal respectively. The findings were in tandem with the fact that Flipkart is the largest online retailer

in India with about 38% of the market share. The next finding indicates that 83% of the respondents have made a purchase in last three months whereas only 15% of the respondents have not made any purchase in last three months. The result indicates that it is not only the frequency of visit that is increasing but also more and more number of customers is buying online. Average online expense in last 3 months was found to be Rs. 4907. Given the Indian conditions it is quite considerable. The maximum online expense recorded was to the tune of Rs. 1 Lakh. This indicates that customer are not shying away to make big online purchases and are comfortable to spend large amounts online. The behavior of buying from more than one website was found to be quite common among respondents. The findings show that 56% of the respondents regularly visit more than one website whereas 42% don't visit multiple websites. The findings confirm the trend of high switching in online retailing. As per the various

online reports online retailing is fast converting into mobile retailing. It was found that 82% of the respondents use smart phone for shopping whereas only 17% don't use it. Of the 82% of mobile app users 69% prefer smart phone for shopping. The findings of the study confirm the trend of shopping through apps. Owing to this trend, Myntra has once gone to total mobile app retailer though later it has to revert back to website model. The time saving perception of online shopping was also found to be prevalent among the sample. It was observed that 91% of the respondents think that online shopping helps in time management in this busy world. The last characteristic measured was the most purchased product category. The findings indicate that clothing, apparel, footwear & accessories is the most purchased category, computers, mobiles, tabs & accessories is the 2nd most purchased category, personal care, beauty & health is the 3rd most purchased category, consumer durables, household Appliances is 4th while 'Others' is the least purchased category. This trend matches with the world wide trend of online retailing though the purchase of categories like groceries, furniture and food is on rise. All in all, the study of online buying behavior characteristics indicate that the customers are developing overall positive attitude towards e-tailing and indulging themselves in the behavior that is favorable for the online retailing industry. This study discussed the descriptives related to online buying behavior characteristics. The next study in this working paper series will try to determine the impact of demographic factors on these to online buying behavior characteristics.

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Appendix – Questionnaire

1. 1. Gender:
 - i. Male
 - ii. Female
2. Age (In Years):
 - i. 18 to 25
 - ii. 26 to 30
 - iii. 31 to 36
 - iv. More than 36
3. Educational Qualification:
 - i. Below HSC
 - ii. HSC or Intermediate
 - iii. Graduate
 - iv. Post Graduate
 - v. Scholar/PhD
4. Employment Status:
 - i. Self-employed
 - ii. Salaried
 - iii. Student/Unemployed
5. Monthly Income (in Rs):
 - i. No income
 - ii. Up to 10,000
 - iii. 10,001- 20,000
 - iv. 20,001-30,000
 - v. 30,001-40,000
 - vi. More than 40,000
6. On average how often you use internet for product information search or shopping

- i. Once a month
 - ii. Once a week
 - iii. 2-4 times a week
 - iv. Daily
7. Name the 3 retailing websites you visit most.
- i. First.....
 - ii. Second.....
 - iii. Third.....
8. Did you make any online purchases in the last three months:
- i. Yes ii. No
9. Your average online expense in the last three months (in Rs.)
10. Do you regularly buy from more than one retailing website:
- i. Yes ii. No
- (If yes, how many?)
11. Do you use Smartphone apps for online shopping
- i. Yes ii. No
12. Do you prefer shopping through Smartphone applications than computers
- i. Yes ii. No
13. Do you think that online shopping helps in time management in today's busy world
- i. Yes ii. No
14. Rank the following product categories in accordance with your online purchase frequency **(1 for most purchased category and 5 for least purchased category)**:
- i. Consumer Durables or Household Appliances
 - ii. Computers, Mobiles, Tab & accessories
 - iii. Clothing/Apparel/Footwear & accessories
 - iv. Personal Care/Beauty/Health
 - v. Other Products, Pls. mention