

A Study of Changing Consumers Buying Behavior in the Connecting World

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Abstract

Artificial Intelligence and Internet of Things is the future of the entire world and India is a well-known name in the Asian Economy and the global citizens are keenly watching each and every action of India with the passage of time. As India is the only country in the world which is not only performing and radically changing itself but the adaptive Global World is revolving around it. The phase of technological growth in India changed the way for doing business in market oriented environment (Sinha et al., 2015). Slowly and gradually the people of India walked from the agricultural mode to the space of Digital India. This paper is also an attempt to study the changing consumer behaviour in this connected world. The authors have tried to analyze the behaviour of consumer as far as e-commerce is concerned.

Keywords: Artificial Intelligence, E-commerce, Digital India, Information Technology, Machine Learning, Digital Transactions

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1. INTRODUCTION

The entire Universe is attracted towards a single point of attraction in the form of positive energy which experts are naming as the connecting world. The technologies in the frames of Artificial Intelligence, Internet of Things, etc. is changing the way/behavior of humans. The entire spectators of the world are keenly watching each and every action of India with the passage of time (Chao et al., 2013). A young India, with a large digitally enabled middle class is asking for growth and radical change. However, if India can create capabilities for growth and new solutions, the opportunities, both at home and abroad, are limitless.

The World is moving into a space where everything and everyone is connected. This technological convergence has brought about numerous changes in our day-to-day lifestyles, redefined consumer relationships and enabled innovation for businesses (Nonaka, 2004). This convergence has grown stronger over the period of time and technological dependence has increased to such a great extent that, today, we rely on some or the other form of technology for almost any aspect of our entire life. Today, business eco-systems have become an expanded universe of intelligent devices that are interconnected, indirectly or directly, via the Internet. This fusion of Information Technology, Operational Technology and Consumer Technology has transformed the global business and society (Chiu et al. 2008).

The Internet has facilitated the quick adoption of technology by businesses and enterprises, making critical online transactions easier and effective. Mobile banking, online shopping, online trading and social networking have changed the way we do business and interact with clients. This has expanded opportunities and helped business to grow faster. In the past four decades since its inception, the Internet has driven dramatic change. It has enabled flows of information, including entertainment, news, and financial and academic material. It has brought people closer together by enabling various forms of interpersonal communication, notably e-mail, instant messaging, video conferencing, and social networking and it has allowed consumers to purchase virtually anything at any time, while providing producers with direct access to a wide range of markets (Chao and Wang, 2008).

Internet has changed the way people buy and the new age generation is leaving the brick and mortar model to the new avenue of e-commerce.

India had an internet user base of about 354 billion as of 2015, and is expected to cross 500 billion by 2016. The penetration of e-commerce is low as compared to the markets of US and UK, but is growing at an unprecedented rate, adding around 6 million new entrants every month.

The major drivers of e-commerce in India are (Economides and Nikolaou, 2008; Eccles and Wigfield, 2008; Ciampa, 2014):

- Increasing broadband and 4G penetration.
- Growing standard of living.
- Availability of wider product range as compared to availability.
- Lower prices as compared to retailers.
- Busy lifestyles and lack of time for online shopping.
- Evolutions of online market with websites like ebay, Flipkart, SnapDeal, etc.
- Evolution of million-dollar start-ups like Saavn, Makemytrip, Bookmyshow, Zomato, Voonik.

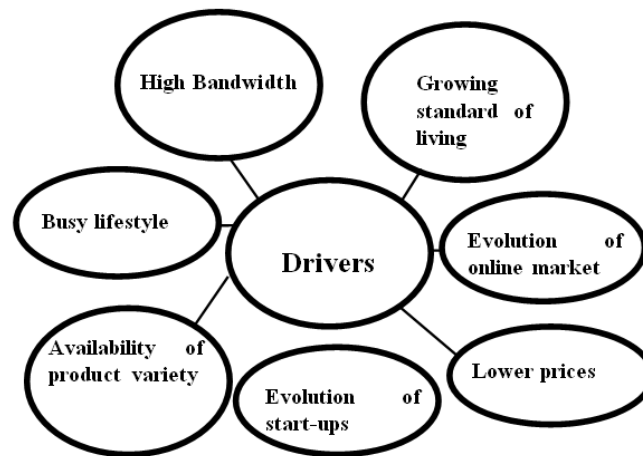


Fig. 1: Drivers for e-commerce in India (Compiled by the author)

2. OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To analyze the increasing trend of online shopping
2. To study the shopping habits of the customers
3. To gauge whether age of the consumer has any effect on the buying behavior and in the online shopping trends or not.

3. LITERATURE REVIEW

There have been studies in the past where the consumer behaviour was assessed but the studies have their own limitations. A compilation of various studies has been done with a brief analysis of each study.

Impact of demographic factors of consumers on online shopping behaviour: a study of consumers in India by Richa Dahiya examined the significance and relevance of demographic factors such as age, gender, marital status, income, family size, education, and ability to use internet, on online shopping in India (Aggarwal, 2017). The survey was conducted on a sample of 580 respondents from Mumbai, Delhi, Bangalore, Chennai and Hyderabad. The tool used for analysis is ANOVA.

The sample was based on several parameters, such as, people who have already done online shopping, only people having Credit Cards were part of this, minimum qualification of all the people was graduation, and it was conducted in metropolitan cities assuming high internet usage (Nelson and Winter, 1982; Mansfield at al., 1981; Manoj and Jayesh, 2014). Based upon the study, following were the results based on different demographic factors:

Age does not impact the online shopping. Females shop more than males. Females tend to do shopping 3-4 times a month as compared to males who shop 1-2 times a month. The marital status of the person does not influence any shopping parameter. The different income groups also do not affect online shopping. Families with two children (or nuclear families) tend to spend more as compared to extended (joint) families. As nuclear families have fewer responsibilities, they go on more vacations, hence tend to spend more on online shopping. Education of the

person is not a very strong contributor of online shopping; therefore, it does not impact overall statistics. The access to internet had no impact on shopping trend since the survey was done on a group which have already done online shopping before.

In another study of factors affecting on online shopping behavior of consumers (**Aggarwal, 2017**), they have conducted the research based on consumer's response variations for online behaviour across different age groups, genders, income groups and occupation groups.

As per their research, it is shown that age of the person does impact the online shopping behaviour and the frequency of online purchase. Gender also impacts the online shopping behaviour and frequency to a great extent as Females are considered to be impulsive buyers, hence tend to shop more as compared to males. Also, females are more easily attracted towards the schemes offered by various shopping sites. Based on the economic status of the person, and their easy accessibility to internet makes them shop online (**Newell et al., 2009**). Occupation of the person, whether they belong to the service class or the business class, does not have any significant impact on the online shopping frequency, since it is completely based upon the internet access one has.

A study on the role of consumers gender and age on online shopping (**Chahal, 2015**), the study analyses the role of gender and age of the consumer on online shopping and to provide the marketing professionals with information so they can develop better marketing strategies to attract customers.

Based upon the research papers studied by them, they concluded that consumers age and gender play a significant role in online shopping. Specifically, the younger generation, i.e. age group of 20-25 years is very keen to shop online. Also, the male consumers are also very interested to shop online. A study of online purchase behaviour of customers in India (**Kanchan et al., 2015**), the objective of the study is to know about the purpose of the internet, find popular e-tailing websites, to know the most popular category of item purchased online, and to study the impact of demographic characteristics of consumers on their online purchase (**Haung et al., 2007**).

As per the study, gender affects the online shopping frequency, and males tend to do more online shopping. Also, age of the consumers also affects the online shopping frequency. The people of age group 30-45 tend to do more online shopping. People with higher income have a higher tendency to shop online. Similar to income, people with higher education, also tend to shop online more. The most popular website was found to be Flipkart. The most popular items purchased are books, tickets and apparels. People concerned with security issues of personal information, passwords, financial transactions are less likely to go for online shopping. It is observed that people who have purchased products online in the past, will continue to make online purchases in future too. Also, people with high level of technology also have a higher tendency to shop online (**Florence and Jefferey, 2013**). The objective of the study is to identify the impact of demographic factor's such as age, gender, income of consumers with special emphasis on possession of internet, frequency of online purchase, motivation drives for online purchase. The study shows that gender impacts possession of internet. As of now, the frequency of online shopping is less in our country.

4. DATA ANALYSIS

The authors have used a sample size of 50 respondents. Research instrument used is a questionnaire (prepared using Google Forms). The method used to classify and summarize data is SPSS 22.0. The method used to present data: Bar Graphs, Pie Charts, Cross Tabulation.

Out of 50 respondents, 47 respondents have shopped online in the recent past and other 3 have not. This implies that 94% of the respondents have shopped online while just 6% of the respondents have not shopped. This number is very encouraging where almost all the respondents (94%) have shopped online.

The frequency of their buying is as follows:

Table 1: Frequency of online shopping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Once in a month	28	56.0	56.0	56.0
	Once in a quarter	11	22.0	22.0	78.0
	Once in six months	1	2.0	2.0	80.0
	Once in a year	1	2.0	2.0	82.0
	More than once in a month	9	18.0	18.0	100.0
Total		50	100.0	100.0	

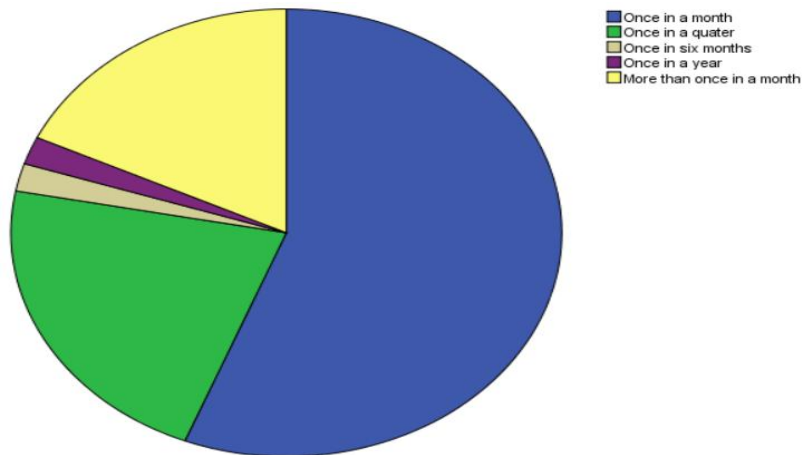


Chart No. 1: Showing Frequency of Shopping online

Around 28 i.e. 56% of the respondents have shopped at least once a month. Only 2% of the respondents are at the initial stages of buying from the e-commerce websites. But it cannot be concluded that they are averse to the idea of online shopping. Looking at the size of the Indian population, this number is very high. This seems a lot of potential for e-commerce companies and the changing trend of buyers to shift to online mode.

When the respondents were asked to specify the reason for their online shopping, the response is compiled in Table 2. Majority of the users believe that online shopping provides them convenience, offers better pricing options, and helps you save time. 34% of the respondents find it convenient to buy online. 14% believes that it also saves time. 18% feels that it is more relaxed

when you can shop at your own convenience. 28% of the respondents thinks that they get better price options from online shopping.

These benefits make online shopping interesting and convenient. With the newer technologies these benefits would increase giving WOW factor to the consumers. The loyalty of the brick and mortar model is decreasing leading to an increase in online shopping.

Table 2: Reasons for online shopping

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Convenience	17	34.0	34.0	34.0
Saves Time	7	14.0	14.0	48.0
More relaxed shopping	9	18.0	18.0	66.0
Better Price Options	14	28.0	28.0	94.0
Comparing Products	3	6.0	6.0	100.0
Total	50	100.0	100.0	



Chart 2: Reason for Shopping Online

At the first instance, it shows that 30% of the respondents spend more than Rs. 4000. This implies that online shopping is not limited to smaller denomination sales. The next is 26% of the respondents whose average shopping amount is between Rs. 2000- Rs. 4000. It is again quite high. The monetary value of the shopping of the respondents is specified in Table 3. As per the analysis on the basis of the age group, we can observe that the people between age group of 26-32, spend the most on online shopping. It is 40% of the total number of respondents. The age group 26-32 consists of the young generation (mostly bachelors), new in their jobs, have relatively less responsibility.

The next age group that prefers to spend on online shopping is age group of 18-25. This consists of the younger age group, mostly students with either part time jobs, or no jobs. This number is

38%. This means 78% of the respondents i.e. 39 respondents are spending on the online shopping. This should be the target group for the e-commerce companies.

Table 3: Money spent on online shopping

Money spent on Online Shopping in past 2 months * Age Group Crosstabulation

Count		Age Group				Total
		18-25	26-32	33-40	40 and above	
Money spent on Online Shopping in past 2 months	Less than 1000	5	1	2	0	8
	1000-2000	3	1	2	0	6
	2000-4000	5	5	2	1	13
	4000-6000	2	4	2	0	8
	4000 and above	4	9	1	1	15
Total		19	20	9	2	50

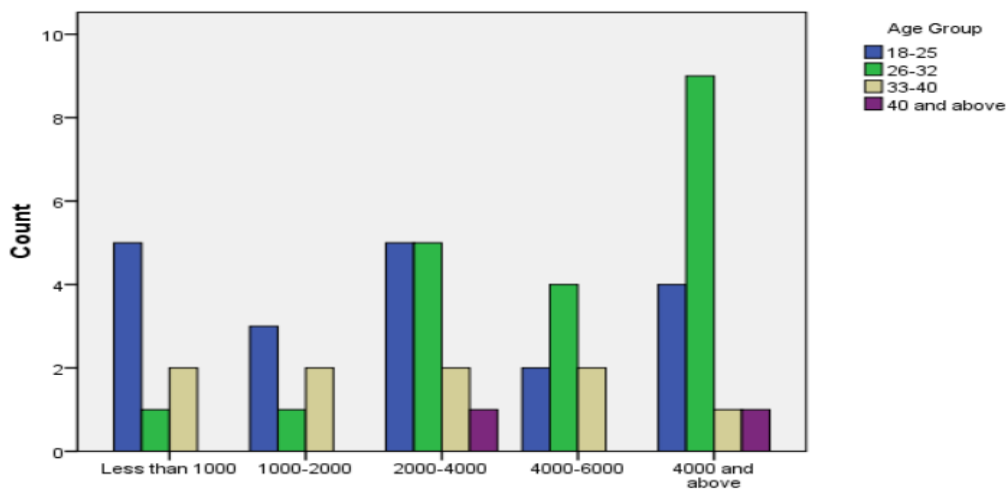


Chart 3: Money spent on Online shopping in past 2 months

When asked about the advantages over offline shopping, more than 90% of the population believes that online shopping has an advantage over offline shopping. The majority population that feels that online shopping has an advantage over offline shopping belongs to the age group 26-32. But the majority population that feels that there is no advantage of online shopping also belongs to the same age group.

When it comes to disadvantages of online shopping, Table 4 summarizes the reasons. Based upon user experience, it could be seen that the major disadvantage of online shopping is that the consumer is not able to judge the quality of the product beforehand. This is the reason that people sometimes also feel that online advantage does not have any major advantage over offline shopping. 70% of the respondents feel that. This is the reasons why most of the ecommerce companies are giving the option of full refund for the return within 15 days. Counterfeiting is not the main reason; only 12% feels that the goods are not same as displayed. As for the consumer, quality of the product is of utmost importance.

Table 4: Disadvantages of Online Shopping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cannot judget the quality beforehand	35	70.0	71.4	71.4
	Difference between actual and depicted product	6	12.0	12.2	83.7
	No Bargaining	3	6.0	6.1	89.8
	Shipping Charges	5	10.0	10.2	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

Disadvantage other than the listed ones

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		49	98.0	98.0	98.0
	All of the above	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

5. CONCLUSION

The objective of the project was to study the increasing trend of online shopping, to study the advantages and disadvantages of online shopping, and to analyze whether age of the consumer has any effect on the buying behavior and in the online shopping trends or not.

As per the analysis, age of the consumer does affects the online shopping behavior trends. We have analyzed that there is an Inverse relation between age and preference of user towards online shopping. This means that as the age group increases, the online shopping trend decreases.

We have observed that the younger generation, typically the age groups of 18-25 and 26-33, are more active and satisfied with the online shopping. The consumers of this age group prefer online shopping due to many advantages such as it saves time, is convenient, and provides you with better prices. Majority of the users believe that online shopping provides them convenience, offers better pricing options, and helps you save time. 34% of the respondents find it convenient to buy online; 14% believing to a time saver; 18% feeling it as a relaxed mode 28% thinking it as a platform to get better price options. These benefits make online shopping interesting and convenient. With the newer technologies these benefits would increase giving WOW factor to the consumers. The loyalty of the brick and mortar model is decreasing leading to an increase in online shopping.

It is observed that the younger generation, especially the age group 26-33, spends openly on online shopping. The main reason for this is that this age group mainly consists of people who are new in their jobs, and are mostly unmarried, and have fewer responsibilities. Or there are people with nuclear families, who also as compared to the one in joint families have lesser responsibilities.

As the age increases, less number of people prefer to buy products online. Especially the age group of 40 and above, people prefer buying their products from the markets.

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