

An analysis of the satisfaction level of customers using the E-commerce marketing services

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Abstract

In today's modern era where there is too much focus on digitalization and online shopping through e-commerce platforms, there is a high need that customers of all age groups should get appropriate service to obtain a high level of customer happiness & satisfaction. It has been analyzed from various facts that "Happy the customer from service, higher will be his/her preference to use that". This paper discusses the number of customers that are satisfied with the e-commerce platform which they tend to prefer for their regular shopping. Data were obtained from 520 users through a detailed questionnaire. Through this paper, the relationship of service as well as the satisfaction level in an Indian Consumer is explored for E-Commerce based services and was observed that there is a significant relationship between the type of age group, types of services, and satisfaction level by Indian consumers for E-commerce.

Keywords: Consumer behaviour, survey, e-shopping, e-commerce, frequency distribution, test of independence, data mining

Introduction

Consumer Behaviour

Consumer behaviour has been at all times of great interest to marketers. Understanding consumer behaviour helps the marketer to understand the thought process of the customer, their feelings and selection of the products, brands among the various alternatives available. It also helps them to understand how the customers are prejudiced by their atmosphere, the reference groups, family, sales person etc. The buying behaviour of the customer depends on various factors such as cultural, social, personal, psychological. It denotes the study of how individual customers, groups or organizations select, buy, use, and dispose ideas, goods, and services to satisfy their needs and wants. Various factors are irrepressible and also beyond the marketer's hands to control but the same needs to be well-thought-out while recognizing the complex behaviour of the consumers. The

market personnel guess that by the consideration of, "What causes the customers to buy particular goods & services", which in turn become easier for them to regulate the right products which are more required in the marketplace and will help them to reduce/remove the obsolete ones. Also, this will help them improving the presentation of the products in front of the customers.

According to 'Louden and Bitta', 'consumer behaviour is the decision process and physical activity, which individuals engage in when evaluating, acquiring, using or disposing of goods and services.'

Consumer Buying Process

Now consumer behaviour eventually sores down to this step. How a consumer chooses on which product he is going to buy? The same is grounded on a set of steps that each customer follows as per below Fig 1:

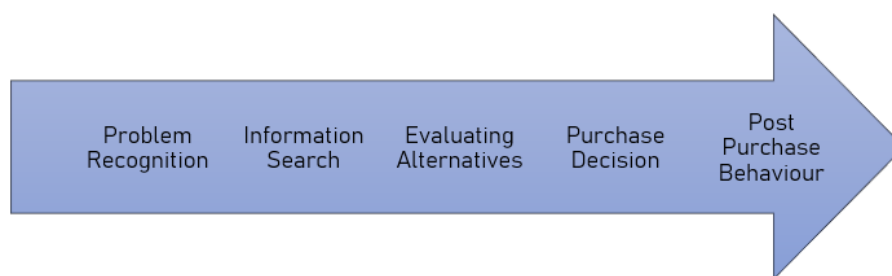


Fig 1: Consumer Buying Process

Importance of Consumer Behaviour

Consumer Differentiation

In marketing, it is a way to differentiate a consumer from several other consumers. This helps them create a target group of consumers with a similar sort of behaviour.

Retention of Consumers

Consumer behaviour not only helps in attracting new consumers but it also helps in retaining the existing

consumers. This is only possible when the consumers got the products and services as per their satisfaction level.

Designing the Relevant programme for Marketing

Understanding consumer behaviour permits one to design an effective campaign for marketing wherein each campaign can talk specifically to a separate group of consumers on the basis of their taste and behaviour.

Prediction of Market Scenarios/Trends

The analysis of consumer behaviour will be the foremost part of indicating a shift in the market shopping trend. For example, the recent trend of the consumers is more towards the environment-friendly and more hygienic food rather than unhygienic food.

Competition

One of the most imperative reasons to learn the consumer behaviour is to find out answers to the below main questions:

- Is the customer buying from your competitor?
- Why is a consumer buying from your competitor?
- What features attract a consumer to your competitor products?
- What gaps are your consumers identifying in your products when compared to your competitors?

E-Commerce

Electronic Commerce normally called as the E-Commerce is referred to as the purchasing as well as selling of the all sort of the products through the online medium or over the internet. This technology was drawn on the techniques called as the M-Commerce, electronic funds transfer, supply chain management, internet-based marketing, online processing of a transaction, electronic data exchange (EDI), stock management system as well as the data collection mechanisms in an automated fashion.

The today's modern E-Commerce platforms make typical use of the best Recommendation system for guiding the user to choose among the best alternative products available and also the right one too. This technique helps in attracting the use towards the usage of digital marketing platform in an effective way and also save their time, money and physical market presence. This tends to increase the confidence among the user to shop the products of their choice in the best possible price and as per their needs with faster delivery. Today, there are too many live examples of E-Commerce websites like Amazon, Flipkart, Paytm etc.

Over the last few years, the digital marketing/ E-commerce business has grown up significantly as the consumers find this easy and comfortable to shop and get the products delivered to their door step with the exchange/return option too in case the same is not as per their needs. They can shop through their homes as well as the offices too. This mechanism has set up the new life style for all the customers today. This recent development in the lifestyle of the today's consumer is the demand of the hour with the moving time. Now a days, customer is becoming more active and comfortable with digital marketing this could be various factor such as online transactions, researching products or services, booking their travel tickets online etc.

Literature review

Gardner, Meryl P. (1985), examined that the mood states of a consumer are a particularly important set of sentimental factors; hence they have formed a part of all marketing situations that may influence consumer behaviour in various contexts, e.g., advertisement exposure and brand selection. Mood states may be quite transient and easily influenced by little things. Small changes in physical surroundings may influence consumers' moods during purchase, and slight eccentricities in communications strategies may significantly disturb moods upon revelation to advertising.

In fact, although consumers' moods are often affected by factors beyond a marketer's control, moods can be greatly influenced by seemingly small aspects of marketer behaviour, e.g., a salesperson's smile or a long wait for a doctor's appointment^[1].

Test of Independence Pearson's Chi- square test is used to test the independence between rows and columns in contingency table. There are three types of Chi-square test; test of independence, goodness of fit and homogeneity, but they use the same formula. There are many advantages of this test like robustness, ease of computation etc. There are also certain limitations like sample size, difficulty in interpretation etc. Many researchers used chi-square to establish relationship between two variables based on observed frequency.

E-commerce is emerging field now days where data mining is used. According to AC Nielson and Absolute Data Report on Social media in India, 2011 in the survey, 77% of the respondents said that they do seek opinion of their friends on Social Networking Sites before purchasing product/service from this report I conclude that there is highest growth in India towards to use of E-commerce services. There are various benefits of E-commerce like purchasing, selling etc. Various authors provide country-based study towards E-commerce user's attitude. Various Data mining techniques are used by various researchers to provide personalized recommendation system to consumers to increase the online sale. Some techniques are cluster analysis, Factor analysis, correlation etc.

In Bhalariao, A., and Rajesh Kumar Pandey. Have focussed on the dynamic business environment and it is turbulent as never before & the service industry as promising as never before. In this age of intense competition companies understand that the customer is the king in the market and success depends a lot on the efficiency of the managers in delivering the promised product or services. The responsibility lies in the organizations to develop a culture, ethics, responsibility, value, and quality services that should be offered to achieve a higher level of customer satisfaction. Dynamic consumer behaviour is required to analyse various factors affecting consumer purchase decisions directly or indirectly^[2].

Hawkins, Best, Coney and Mokherjee in their book on consumer behaviour have discussed various factors which affect the behaviour of consumer for purchasing and those factors include the demographic and social influences, group influences, advertising impact as well as some of the internal influences. Their book further explicates the classes of the consumer decisions, purchase involvement as well as the product involvement. The book further highlights an information search process as well as the various ways to provide the relevant information to the consumers^[3].

Subadras, Murugesan K M & Ganapathi R (2010) have studied about the, "Consumer perceptions & Behaviour" & found that the behaviour of consumer involves all sort of human behaviour which acts in their purchasing decisions of the products. An understanding of the consumer behaviour helps a marketer in taking the decisions related to an effecting marketing which fits with their customer segment needs. Upon studying, they found the various classes of consumer behaviour such as determinants & expectations, namely, cultural, socioeconomic, personal & psychological^[4]. Srinivasan R, Srivastava RK & Bhanot S (2014) have studied about an impact of lifestyle on various brand

preferences of consumer behaviour & hence concluded that various factors have major role in the changing of buyer's behaviour. There was a significant relationship between gender & insistence on specific brand by consumers for consumer durables at every purchase, secondly there was no significant relationship between gender & place of purchasing consumer durable [5].

Bhattacharya, Swaha, and Sritama Mitra (2012) have premeditated the brand impact on the consumer behaviour of 100 males and 100 female inhabitants in the Kolkata city. With a detailed investigation, they also examined that, the brand impact on consumer behaviour is more significant among the female group than the male group. Brand name, Brand loyalty & symbolic meaning were the reasons behind the difference as harangued by the respondent's selection of products & shopping experience were more predominant among the female group than that of the male group, it was also concluded that the less the monthly income of the family the more the impact of the brand will be on consumer behaviour [6].

Lakshmi. S. (2016) have performed a study on "A Study on Customer Perception towards Online Shopping, Salem". The primary aim of the research was to study the customer perception towards online shopping at Salem district. The sample size of the research was 150 respondents. The authors had adopted random convenience sampling technique for the data gathering. They analysed the data using the simple percentage analysis and ANOVA (analysis of variances) methods [7].

Ashwini N, Manjula. R (2016) aimed to comprehend the key persuaders for consumers to search and shop online. They also investigate how different types of online buyers perceive a website differently. They tool up a sample size of the research as 40 respondents. With the research they found that online consumer concerns about lack of opportunity to examine the products prior to purchase are regarded as specific factors affecting the online buying decision [8].

Gagandeep Nagra, R. Gopal (2013) researched with the motive of identifying the impact of Demographic factors on an online shopping. Also, they tend to study the consumer behaviour focussing various parameters such as age, gender, education, income possession of internet, frequency of online purchases etc. They took up the sample size 70 respondents to research with the help of "ANOVA" tool for data analysis. Later, after the data analysis part they conclude that gender does impact possession of the internet,

and the Frequency of online purchase of consumer's occupation is a demographic variable that does not impact any of the variables [9].

Renuka Sharma, Kiran Mehta, Shashank Sharma (2014) performed a research in this paper to understand the online buying behaviour of consumers in India and to get data about the scope of improvement in the online shopping website. They took up the sample of 120 respondents and had used tools like simple charting and tabulation for the data analysis. Soon, after the data analysis and interpretation part, they have also concluded that Indian customers are also getting addiction to an online shopping and they do like various features of online shopping [10].

III. Description of online survey

A. Data Collection

The data for fulfilling the objectives of the study have been collected from the various primary sources in an online manner through the questionnaire. The mode of filling this questionnaire is through Google Forms. The target audiences are E-commerce user who uses different services of E-commerce. There are various questions in the questionnaire regarding Indian customer attitude and their usage of E-commerce services. For this study below questions are used.

1. Categories of services used in E-commerce.
2. Satisfaction level of customers after using these services.
3. Age group of users.

Table 1: Frquency table of demographics of respondent

Gender of Respondent	Male	366
	Female	154
Age Group of Respondent	18-30	427
	31-45	80
	46-60	13
	> 60	0
Types of Services	E-Banking	112
	E-Billing	95
	E-shopping	175
	E-Ticket	138
Satisfaction Level	0-25%	1
	25-50%	21
	50-75%	186
	75-100%	312

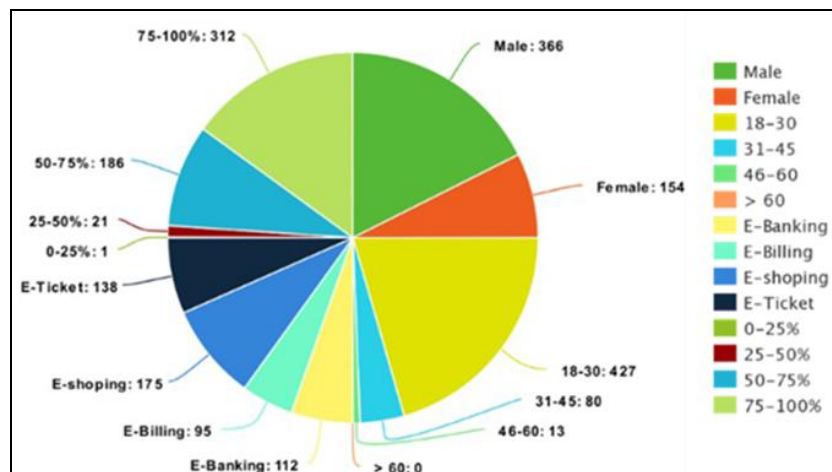


Fig 2: Pie Diagram to show frequency of demographics of respondent

The following findings were drawn from Fig 1

1. The study is dominated by young users having a contribution 80.1% and their age is between 18 to 30 years.
2. In the study, the male contributors are more (70.5%) as in comparison to the female with a lesser contribution of 29.5%.
3. Two categories of respondent who has contributed in the survey are E-shopping and E-ticket having 76.8% and 61.2% contribution.
4. The level of customer satisfaction with ranging 75-100% is 57.8% while on the other hand customer satisfaction level with range 25-50% is 37.1%.

Hypothesis design

H01: There is no significant relationship between the category of age group and satisfaction level opted by Indian consumers in E-commerce.

Ha: There is a significant relationship between the category of age group and satisfaction level opted by Indian consumers in E-commerce.

H02: There is no significant relationship between the category of E-commerce services and satisfaction level opted by Indian consumers in E-commerce.

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Experimental design

There are four steps in the experiment design:

1. **Data selection:** In this step the data is being collected for all the user responses who use e-commerce services. We have collected 520 samples for predefined questions related to age group, service type, and satisfaction level as per the below table.
2. **Method of Data collection:** The data is being collected through the google form from various categories of E-Commerce users.
3. **Tools:** In this study we have used 'R' open-source tool for analysis.
4. **Technique:** As our data is in categorical form so we have used Pearson's Chi-square test to validate the dependency among various defined variables thereby also validated the null hypothesis.

Table 2: Data Selection

Age Group	Satisfaction level			
	0-25%	25-50%	50-75%	75-100%
15-30	0.8211538	17.244231	152.73462	256.2
31-45	0.1538462	3.230769	28.61538	48
46-60	0.025	0.525	4.65	7.8

Results

Here are the results after applying the Chi-square test mechanism.

Table 3: Age Group & Level of Satisfaction

Age Group	Satisfaction level			
	0-25%	25-50%	50-75%	75-100%
15-30	1	19	146	261
31-45	0	2	36	42
46-60	0	0	4	9

Table 4: Service Categories & Level of Satisfaction

Service types	Satisfaction level			
	0-25%	25-50%	50-75%	75-100%
E-Banking	0.2153846	4.523077	40.06154	67.2
E-Billing	0.1826923	3.836538	33.98077	57
E-shopping	0.3365385	7.067308	62.59615	105
E-Ticket	0.2653446	5.573077	49.36154	82.8

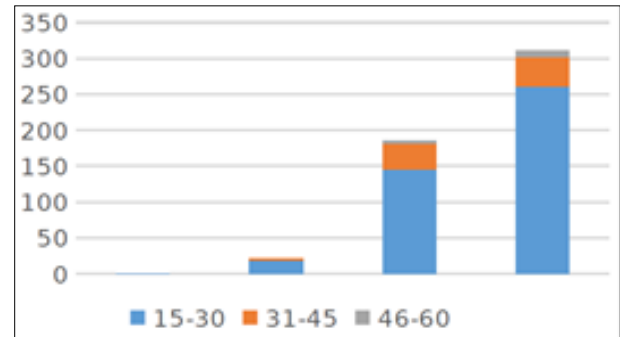


Fig 3: Test Results

Pearson's Chi-squared test data: tab

X-squared = 4.7085, df = 6, p-value = 0.5817

In this experiment we have seen that the value obtained in the chi-square test is 47.085 at 6 degrees of freedom. Also, we have noticed that the p-value is 0.5817 which is greater than 0.05 hence accept the null hypothesis. So, there is no significant relationship between types of age group and satisfaction level opted by Indian consumers in E-commerce. These results tell us that there is no dependency between the age group and the satisfaction level of Indian e-consumer.

Service types	Satisfaction level			
	0-25%	25-50%	50-75%	75-100%
E-Banking	1	5	35	71
E-Billing	0	4	32	59
E-shopping	0	8	71	96
E-Ticket	0	4	48	86

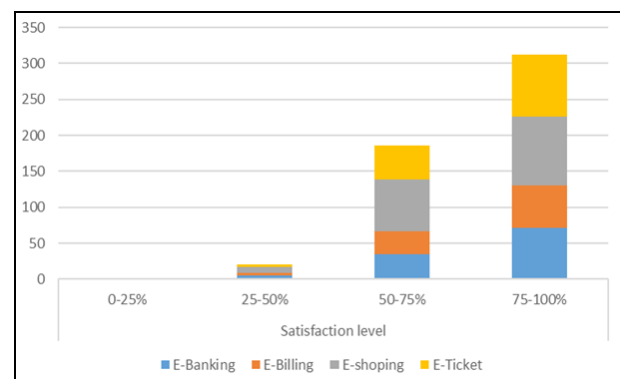


Fig 4: Pearson's Chi-squared test data: tab

Pearson's Chi-squared test data: tab

X-squared = 7.3681, df = 9, p-value = 0.5988

In this experiment we see that the chi-square value is 73.681 at 9 degrees of freedom. Also, the p-value is 0.5988 which is greater than 0.05 hence accept the null hypothesis. So, there is no significant relationship between types of services and satisfaction levels opted by Indian consumers in E-commerce. These results tell us that there is no dependency

between service types and the satisfaction level of Indian e-consumer.

Conclusion

With the increasing demand of the E-Commerce platform, the E-commerce company needs to serve the customers of all age groups in terms of every sort of service. The results of the study clearly show that there is a significant relationship between the type of age group, types of services, and satisfaction level by Indian consumers in E-commerce at 95% confidence. From the data, it has been observed that young people with an age group of 18-28 years prefer the use of e-commerce more and the two most popular services are E-shopping and E-ticket. The objective of the study to test dependency between age group, types of services, and satisfaction level is achieved. Also, we observed that there is no dependency between service types and the satisfaction level of Indian e-consumer.

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