Customer Satisfaction and Loyalty of E-commerce in India

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Abstract
The fierce competition in E-commerce has forced the companies to focus on providing customer satisfaction and gain customer loyalty. Thus, measuring the parameters which drive customer satisfaction is very important for the long-term growth of the businesses. This research work makes an attempt to identify the factors which influence the loyalty and satisfaction of customers in organized E-commerce sites. The samples are collected from users who regularly do the transactions in E-commerce sites in metro cities, majorly Delhi NCR and Mumbai. The study also identifies relative importance of factors affecting satisfaction. Attention has been given to cover all the major factors with special emphasis on the logistics part.

Keywords
E-commerce, consumer satisfaction, consumer loyalty, brand loyalty, logistics, ecommerce reliability, ecommerce return policy, SPSS.

Introduction
Technological development, cheap and fast internet availability, nature of city life etc has led to drift consumer from traditional to internet base (online) shopping. With the movement of greater population percentage towards internet based shopping, more and more E-commerce sites are coming to the forte. Higher the number of E-commerce site (companies) in the fray higher the competition. This gives opportunity to the consumer to select the sites which provides highest customer satisfaction. While consumer behaviour in E-commerce seems to be a complex subject, the consumer expectations are changing, challenging traditional patterns of supply of commercial websites. E-commerce has become one of the essential features in the internet era. Online shopping become the third most popular internet activity immediately following e-mail and web browsing.

A brand is generally a name and a symbol. It is an important means which helps creating a positive image on consumers and differentiates it from its rivals. Loyal customers are loyal consumers of the brand and perform repeat purchases and recommend the brand to those around. Changing life styles, strong income growth and favourable demographics are the drivers of rapid growth of this sector. Loyalty is at the heart of business firms and companies make great efforts in order to maintain their customer’s loyalty. These efforts become increasingly difficult and serve in the online business to customer environment since online companies such as e-stores or e-retailers are facing competition not only from other similar sites but also from offline companies that offer similar products and services.

A unique factor in e-loyalty is the critical role of the first impression created by a website as well as its ease of use. Easy navigation, fast page loads, server reliability, quick shopping and checkout processes add to a personalized interface. Other factors that drive customer satisfaction are cost of the products, authenticity, logistics and easy returns.

At a global level, e-loyalty is generally very strongly related to the profitability and long-term growth of a firm. Small increases in customer retention rates can dramatically increase profit. Loyal customers visit their favourable websites twice as often as non-loyal customers. Loyal customers spend more money, 35 to 40% of revenue will come from repeat visitors.

Literature Review
As long as repeat business is important and as long as customers have chance to go somewhere else, E-commerce sites must deliver high level of customer satisfaction to be successful, in a competitive market
place that offers meaningful consumer choices. Firms that do well by their customer are rewarded by business. According to Allagui and Temessek (2005), the theoretical foundations of loyalty to a company of the internet are similar to those of traditional loyalty. It is defined as continuing relationship established between the consumer and a brand as long as repeat business is important and as customers have the chance to go somewhere else, companies must deliver high level of customer satisfaction to be successful.

Customer loyalty

Intention of Repeat purchase:

If loyalty is defined as an uninterrupted sequence many purchases of the same brand, according to the marketing literature, a minimum of three to four successive repeat purchases are enough to talk about loyalty. Behaviour on the internet is much less stable over time. Indeed, the cyber consumer has more alternatives to choose from, the cost of change is relatively small and information about the sites is available at low cost. The consumer is no longer a mere purchaser of the product or user of the site, but a true partner with whom we can cooperate and be willing to make sacrifices in the short run.

Online Retailing:

A 2012 global online survey by Nelsen suggests that about 875 million consumers across the world prefer to shop online. The report confirms that 85% internet users shopped online. According to Google India, out of more than 100 million internet users, half make online purchases and the number is growing every year. Online retail in India is projected to grow to 200 billion dollars by 2025.

Brand image:

Brand image is the soul of the product or service. It translates into customers, makes them believe in the products and helps them to make purchase decisions. The brand image affects consumer cognition of the product or service quality. This is why enterprise work hard on it and maintain their brand image.

Brand satisfaction:

Satisfaction is necessary but not sufficient component of loyalty, satisfaction is a prior to loyalty. The notion of satisfaction is considered here as an indirect source of loyalty. Brand Satisfaction refers to transactional measures focusing on a discrete incident construct resulting from a service of transactions. It is an antecedent of trust, with increase in satisfaction leading to increase in trust, which in turn leads to loyalty.

Loyalty:

A deeply held commitment to reuse the services of a company is called loyalty. The consumer brand relationship is critical to the building of loyalty. It is important for several reasons. First, it results in higher sales volume. Second, companies with loyal customers don’t have to spend as much money on marketing the product. This type of loyalty can be a great asset to the firm: customers are willing to pay higher prices, they may cost less to serve, and can bring new customers to the firm. Businesses have to exert significant effort to facilitate loyalty. Companies need to convince potential customers that their product has a significant advantage over other products to justify consistent purchases.

Satisfaction:

Research has shown that consumer behaviour is difficult to predict. It studies features of individual consumers such as demographics and behavioural variables in an attempt to understand people’s wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups and society in general. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviours such as other products against which the customer can compare the products to shopping sites which match the predominant motives of customer have higher patronage and different product categories have different motives. Once the customer is satisfied with one e-retailer or brand he doesn’t generally change to another one. Satisfaction has generally been presented as an emotional state arising from the non confirmation of positive or negative initial expectations for the experience of possession or consumption (Oliver, 1980).
Research Methodology

The present study is focused on the shopping behaviour dimensions of consumers who visit the organized Ecommerce sites. Descriptive research is followed to define the critical factors responsible to create higher customer satisfaction. A survey based research is conducted to access the response of the E-commerce consumer from Delhi NCR and Mumbai. Questionnaire is prepared and tested for its Cronbach’s Alpha value for reliability. While conducting the survey, care is taken to include respondents from different type of customers, educational back ground and income level.

Factors considered in research for customer satisfaction are Cost, Authenticity of products, Authenticity of seller, Product Description, One day Delivery option, Availability of Cash on Delivery, Quality of packaging of product, Free returns with pickup facility, No questions asked return policy, Time barred return policy, Time taken to process returns and User Interface. These factors are consolidated through literature review.

E-commerce companies selected for this research are: 1. Amazon, 2. Flipkart , 3. Snapdeal, 4. PayTM, 5. Shopclues

Primary data: Data collection is done by the way of survey from 70 respondents of Gurgaon and Mumbai who transact regularly on Ecommerce sites.

Secondary data: Collected from books, Journals and Articles published on customer loyalty and satisfaction.

Research Hypotheses: (Alternate)

Ha1: All Observed variables are independent and important

Ha2: Factors of customer satisfaction have different impact on the buying behaviour of online customer

Ha3: All e-commerce websites are preferred differently by the online customers

Conceptual Framework

Sample Size Calculation:

Below is the formula for estimating the sample size required when the population size is large but not known.

\[
\text{Sample size} = \frac{Z^2 \times (p) \times (1-p)}{\text{EM}^2}
\]

Where:

\(Z = Z\) value

\(p = \) percentage picking a choice, expressed as decimal

\(\text{EM} = \) error of margin, expressed as decimal

For our calculations,

\(Z = 1.645\) (a confidence interval of 90% is used)

\(P = 0.5\) (since, the outcome is not known, it is taken to be an unbiased outcome)

\(\text{EM} = 0.1\) (an error margin of 10% is assumed)

\[
\text{Sample size} = \frac{1.645^2 \times (0.5) \times (1-0.5)}{0.1^2}
\]

\[= 67.65 = 68\]

Thus, a minimum of sample size of 68 is required to conclude the following study.

In order to achieve the objectives of this research, the data for this research was collected in March 2015 with the help of a questionnaire survey distributed to 100 users of online retail. From 100 questionnaires floated to
The consumers, 70 usable questionnaires were returned, a response rate of 70 percent. In this study, quota sampling and convenient sampling were used to portion samples of online customers as shown in Table.

### NUMBER OF SAMPLES

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>35+</td>
<td>15</td>
<td>21.5</td>
</tr>
</tbody>
</table>

### Empirical Analysis

We now describe our analysis for checking the effect of various factors on customer online buying behaviour. SPSS is the statistical package used for the statistical analysis.

### Factor Analysis

Factor analysis is a statistical tool used for the purpose of dimension reduction or finding the latent variables from number of variables (observed) of interest. The basic advantage of dimension reduction is that handling of few factors rather than loads of data makes the analysis more efficient. Although it might be seen that the combined ability of these factors to explain the variability in the output is less than that of combination of original variables.

**Hypothesis, Ha1: All Observed variables are independent (not correlated) and important**

In this study, the dependent variables which were: Cost, Authenticity of products, Authenticity of seller, Product Description, One day Delivery option, Availability of Cash on Delivery, Quality of packaging of product, Free returns with pickup facility, No questions asked return policy, Time barred return policy, Time taken to process returns and User Interface, were tested using factor analysis technique. The selected results of factor analysis are attached in Appendix 1.

KMO and Bartlett’s test talks about sample adequacy and correlation of observed variables respectively. KMO value higher than 0.6 suggest that sample size is adequate to find statistical inference. KMO value of the study is higher than 0.6 i.e. 0.648, hence sample size of 70 is good for statistical analysis.

Similarly, Bartlett’s test gave a significant result. Significant value i.e. P=0.00, suggest that at least one of the observed value is correlated.

The factor analysis resulted in 3 major factors affecting the output (taking the minimum value of 0.65), but rather including cost in factor one, study assumed it as separate factor. This changes lead to 4 factors. First one cost, which could not be clubbed with any other. Authenticity of products, Authenticity of seller, Product Description and User interface were clubbed as E-commerce reliability. One day Delivery option, Availability of Cash on Delivery and Quality of packaging of product were clubbed as Logistics. Free returns with pickup facility, No questions asked return policy, Time barred return policy and Time taken to process returns were clubbed as Return Policy. The scores for these factors were calculated by using method of average.

The output of this activity was 4 factors (Latent Variables): this led to development of 4 scale of measuring customer satisfaction in E-commerce.

1. Cost
2. E-commerce reliability
3. Logistics
4. Return Policy

### ANOVA

Analysis of Variance (ANOVA) is the statistical tool to measure relative importance of the independent variables or factors. In this research, multiple independent variable or factors are accessed over one dependent variables i.e. customer satisfaction. Since, we have only one population and many variables are to be tested on the same population, Repeated measures ANOVA was used. Repeated measures ANOVA is the equivalent of
the one-way ANOVA, but for related, not independent groups, and is the extension of the dependent t-test. A repeated measures ANOVA is also referred to as a within-subjects ANOVA or ANOVA for correlated samples.

**Hypothesis, Ha2: Factors of customer satisfaction have different impact on the buying behaviour of online customer**

The means of these factors were compared and then these factors were ranked accordingly. A confidence interval of 95% was used for the analysis. The results of ANOVA are attached in Appendix 2.

The analysis showed that there is a significant difference between means of at least one of the variable. A further Post-Hoc (pair-wise) analysis showed that there is not much significant difference in the means of 3 factors namely, cost, E-commerce reliability and Return policy. However, the mean of Logistics was significantly different from others. It was also observed that the mean of logistics was lower than other variables. Thus, the final ranking of variables is as follows:

1. Cost, E-commerce reliability and return policy
2. Logistics

**Hypothesis, Ha3: All e-commerce websites are preferred differently by the online customers**

Study also focused to know the preference of existing E-commerce sites (company). So, data was collected through our survey to know the preference of E-commerce Company. The means of preferences of different E-commerce companies were compared and then they were ranked accordingly. A confidence interval of 95% was used for the analysis. The results of ANOVA are attached in Appendix 3.

The analysis showed that there is a significant difference between means of at least one of the variable. A further pair-wise analysis showed that there is not much significant difference in the means of 2 companies namely, Snapdeal and PayTM. However, the mean of other three were significantly different from others. The final ranking of companies as per their preference is as follows:

1. Amazon
2. Flipkart
3. Snapdeal and PayTM
4. Shopclues

**Conclusion**

The results of this study suggest following outputs which might be useful for E-commerce websites to extend their business

1. The cost of the product, the reliability of the E-commerce company and the return policies all play an equally important role in deciding the buying behaviour of online customers. The cost is an important factor as it was the basic criteria used by online retailers to attract customers. The reliability of the E-commerce company is also important, as it is even required in offline retail. It is important because customers are paying online, so they need to be sure of security of the online transaction. The return policies are important because in online retail customer does not get to feel the product. Thus, he wants to be sure that it will be possible to return the product if he does not like it in real. Whereas, the logistics factor, which included Cash on delivery option, One day delivery and the quality of packaging plays a secondary role in this process though these are Must-be-quality as per KANO model. This is so because these all does not interfere with the real product and people believe that this is the basic value that E-commerce websites provide.

2. All the websites were not equally preferred by online customers. Amazon was the most preferred followed by Flipkart. This can be explained easily by previous result that we got. These two companies are most trusted in the industry and hence, have a huge reliability. Also, the sellers listed on these websites are generally from Tier 1 cities as compared to Snapdeal and PayTM which have more sellers from tier 2 and 3 cities. Also, these websites have the most lenient return policies as compared to others and also the time required to process a return is low for these.
References

- Gommanns,M., Krishnan, K.S and Scheffold, K.B. From brand loyalty to E-loyalty: A conceptual Framework.
- Ramaswamy, V.S.  and Namakumari, S. Marketing management planning, implementation and control. 3rd edition,

Appendix 1

FACTOR ANALYSIS: Hypothesis H1
Appendix 2
ANOVA: Hypothesis Ha2

### Multivariate Tests

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<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig</th>
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<tr>
<td>Factors</td>
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<td>Wilks' Lambda</td>
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<tr>
<td>Roy's Largest Root</td>
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<td>12.064</td>
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<td>.000</td>
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\[ a. \text{Exact statistic} \]

### Pairwise Comparisons

<table>
<thead>
<tr>
<th>(I) Factors</th>
<th>(J) Factors</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig</th>
<th>95% Confidence Interval for Difference</th>
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<tbody>
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<td>2</td>
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<td>.161</td>
<td>.000</td>
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<td>.000</td>
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<td>.000</td>
<td>.376 - 1.096</td>
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<td>.096</td>
<td>.105</td>
<td>1.000</td>
<td>-.190 - .382</td>
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</table>

Based on estimated marginal means

* The mean difference is significant at the .05 level.

\[ a. \text{Adjustment for multiple comparisons: Bonferroni.} \]

Note: Factor 1=cost; Factor 2=Logistics; Factor 3=E-commerce and Factor 4=Return Policy
Appendix 3
ANOVA: Hypothesis Ha3

### Multivariate Tests

<table>
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<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
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<td>Roy's Largest Root</td>
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* a. Exact statistic

### Pairwise Comparisons

<table>
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<tr>
<th>(I) Choices</th>
<th>(J) Choices</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
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</table>

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Note: Choice 1- Flipkart; Choice 2- Amazon; Choice 3- Snapdeal; Choice 4- PayTM, Choice 5- Shopclues