An Empirical Study on the Drivers of E-Commerce Business

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#### **Abstract**

**Background/ Objectives:** The purpose of the study is to identify and examine the drivers of e-commerce business. Perceived value, attitude, customer satisfaction and loyalty are studied as the drivers of e-commerce business in this research article. **Methods/Statistical Analysis:** A deductive approach is used in this research, which attempts to understand the theory first and the data collected is tested. A questionnaire form of survey is chosen for the study. The sampling strategy used is stratified purposive sampling with sample size 200 reasonably split among students, homemakers, and service professionals. To measure the factors, five-point Likert scales ranging from strongly disagree to strongly agree are used. An empirical evaluation of the relationship of factors has been done and proved statistically. SPSS tool is used for correlation and regression analysis. **Findings:** This study contributes to the drivers of e-commerce business. Perceived value is measured through functional value, social value and emotional value. The attitude formed through this value enhances online buying behaviour. The research projects a positive attitude towards the buying behavior. This article brings out the importance of perceived value, attitude, customer satisfaction and customer loyalty. **Application/Improvement:** The e-commerce businesses, in order to succeed, must have greater focus on the perceived value and customer satisfaction. This paper contributes to the enhancement of online customer relationship pertaining to e-commerce.

**Keywords:** Attitude, Customer Satisfaction, e-commerce, Loyalty, Perceived Value

### 1. Introduction

E-commerce boosts the business and many companies benefit from their e-commerce site. As compared to other countries, the penetration of e-commerce in India is low. Growth of smartphone users and the rising standard of living led to the growth of e-commerce. India's growth in e-commerce in the next five years would reach \$100 billion as digital network will spread into rural areas. The customer's purchase decision is influenced by e-commerce. Customers are very convenient of shopping online as it gives the ability for customer to order a product according to their exact specifications. They get personalized experience in e-commerce<sup>1</sup> defines E-commerce as a tool that helps reduces the administrative costs and cycle time, stream business processes and improves relationship with both business partners and customers.

More economic uncertainities in e-commerce companies has made the necessity to develop a strong customer satisfaction program. The ultimate goal of any e-commerce organization is to make the profitable customers to come back to the organization<sup>2</sup> suggests that by keeping 5% more customers than last year would raise the total lifetime profits to 35-90%. As per<sup>3</sup>, a customer who is satisfied shares his positive experience to three to five people but whereas a customer who is dissatisfied will discuss about his negative experience for 7 to 20 people. So obviously any e-commerce business for success need to make the customer feel satisfied4 has identified the five maxims of satisfaction, product design and delivery according to the customer needs, deliver quality consistent with price, delivery of the project in a time frame as desired by the customer, customer care and a fair system of conflict resolution. Consumers behave differently in an

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online environment. The variables pertaining to online environment differs from that of the offline environment. The purchase path in e-commerce is led by the perceived value variable which in turn enhances the attitude. As suggested by 5, the overall assessment of the utility of service or product is based on the perceptions of what is being received and what is being given<sup>6</sup> have designed four factors for perceived value measurement in a traditional retailing concept, which is applied in this study as it has quality as functional value factor, price as another functional value, social value and economic value factors which can be studied in an online environment as well.

<sup>7</sup>defines attitude as the positive or negative feelings which are related to the accomplishment of the purchasing behaviour on the internet. The e-commerce experience has some effect on the attitude of the consumers purchasing through online. According to 8, attitude is being reflected to consumers favourable or an unfavourable assessment, feeling and inclination towards an object or an idea onsidered attitude as the primary factor, that affects the e-shopping potential<sup>10</sup> defines attitude as the state of mind at the time of purchasing through online<sup>11</sup>, proves that the perceived usefulness, ease of use, awareness and trust has a significant impact on the attitude of the customers shopping online.

Customer satisfaction is the key for retaining the customer. According to 12, customer satisfaction is defined as consumers feeling of delight or disappointment resulting from comparing products perceived performance in relation to his expectation. Anderson and Srinivasan states that, satisfaction is the feeling of contentment with respect to his prior experience in purchasing with a given service firm. In online marketing, satisfaction is the judgement of the customer of their internet experience compared to that of the traditional type of business<sup>13</sup> states that greater the customer satisfaction the stronger the repurchase intentions. The increased level of customer satisfaction decreases the chances to switch to other e-commerce business14 suggests that the most important factors leading to customer satisfaction are convenience, product merchandise, designing websites and financial security<sup>15</sup>, information quality and the design of websites serve as marketing stimuli controlled by marketers. He included variables such as delivery and customer service, which leads to customer satisfaction. The components of online shopping, as identified by 16 are interactivity, transaction and execution.

Customer loyalty is considered as a necessity both for economic and competitive reasons. The long term profits of e-commerce business are influenced by the customer loyalty. So now-a-days more attention is given to improve the aspects of customer loyalty. The loyal customers will repurchase and recommend the services or products to others, thereby they indirectly reduce the advertising expenses of the business. It is always more difficult to gain customer loyalty in e-commerce business than that in a traditional business, as customers switch to another site very easily by just clicking on the mouse. So, it becomes very necessary for the e-commerce business to develop stronger relationships with customers to gain customer loyalty. The product qualities and prices are easily compared in e-commerce business. Excellent E-service quality is essential for the success of e-commerce business<sup>17</sup> defines E-service quality as "the extension to which a website can facilitate effective as well as efficient shopping, purchasing and delivery of products or services". The e-service quality is judged by efficiency, reliability, privacy, fulfillment, responsiveness, contract and compensation as suggested by 18 Customers always want their questions to be answered or problem to be resolved, so e-commerce websites have enabled FAQ (Frequently Asked Questions) which helps the customers to find the answers themselves in a much lesser time. Loyalty is examined through attitudinal and behavioural loyalty. Behavioural loyalty is the willingness of the customer to continue the relationship and repurchase the product. Attitudinal loyalty is the attitudinal advocacy and psychological attachments with the particular e-commerce business. The loyal customers always have strong intention to buy from the same e-commerce website and does not switch to another website which has been empirically proved by 19. The loyal customers repeat their buying behaviour. The objectives of our study is to analyze the relationship between the drivers of e-commerce business. The researcher considers perceived value, attitude, customer satisfaction, customer Loyalty are the key factors which lead to the success of the e-commerce businesses. In this study researcher tries to prove that perceived value and attitude has a significant positive effect on the customer satisfaction and customer loyalty.

### 1.1 Hypothesis

- H1: There is a significant association between the drivers of e-commerce.
- H2: Perceived value has a significant effect on Customer Satisfaction and CustomerLoyalty in terms of E-commerce business.

H3: Attitude has a significant effect on Customer Satisfaction and Customer Loyalty in terms of E-commerce business.

### 2. Materials and Methods

The sampling technique applied is stratified purposive sampling, which lends credibility to this study. Respondents were selected from Chennai, which includes college students, homemakers, employees and professionals. The main instrument used for this study is a questionnaire. Scale items were used to assess key constructs like customer perceived value, attitude, customer satisfaction, customer loyalty. These were adapted from the prior studies, which were validated measures. The respondents were first asked if they had experience shopping online and were asked to fill the other questions. A 5-point Likert scale ranging from extremely agree to extremely disagree is used. The questionnaire is divided into two sections, the first section consists of the demographic information related questions such as gender, age, qualified, income, etc., The next section consists of 38 items, which measures constructs of perceived value, attitude, customer satisfaction and customer loyalty.

### 2.1 Statistical Analysis

Statistical package for social sciences (SPSS) is used for the analysis. The Pearson correlation is used to analyze the relationship between factors such as perceived value, attitude, customer satisfaction and customer loyalty in an online environment. A pilot study was done prior to the actual research which involved 30 respondents to make sure that the questionnaire was understandable by the actual respondents and to improve the questionnaire form and to check whether the item suits the requirement of the study. As it is very important to check the internal consistency before any test is used in research. According to 20, as the reliability test increases, the fraction of error decreases. The internal consistency of this study is indicated by high Cronbach's alpha, which indicates the reliability of the constructs. Table 1 summarizes the reliability of each construct. The reliability of each construct is: Perceived value 0.868; Attitude 0.774; Customer satisfaction 0.825; Loyalty 0.888. The scale has been adapted from previous studies hence the questionnaire has content validity as well.

The reliability of the questionnaire with 37 items is 0.921. The reliability is calculated by excluding demographics such as age, gender, occupation, income, etc.,

Table 1. Reliability of constructs

CONSTRUCTS	CRONBACH ALPHA
PERCEIVED VALUE	0.868
• ATTITUDE	0.774
CUSTOMER SATISFACTION	0.825
LOYALTY	0.888

Table 2. Reliability of total items

Cronbach's Alpha	N of Items
0.935	37

The 37 items consists of the questions related to the factors such as perceived value, attitude, customer satisfaction and loyalty [Table 2].

### 3. Results and Discussions

## 3.1 Association between the Drivers of e-commerce Business

H1: There is an association between the drivers of e-commerce.

The Pearson correlation test is used to examine the association between the perceived value, attitude, customer satisfaction and loyalty. The analysis results summarized in Table 3 shows that there is a significant association between the drivers of e-commerce and the correlation is significant at 0.01 level. There is a strong positive correlation between perceived value and customer loyalty with a 71% significance, attitude and customer satisfaction with a 70% significance, customer satisfaction and customer loyalty with a 77% significance. Hence the null hypothesis is rejected. This result shows that perceived value, attitude, customer satisfaction and customer loyalty are the important factors in the e-commerce business sector. The perceived value is measured through the functional, social and emotional value. The attitude formed through this value enhances online buying behaviour leading to increased customer satisfaction which enhances the customer loyalty.

The Multivariate analysis is used by the researcher to test the influence of the independent variables and dependent variables, to test the effects of independent variable on the dependent variables. As suggested by <sup>21</sup>, the researcher is analyzing the effect of perceived value

		PERCEIVED VALUE	ATTITUDE	CUSTOMER SATISFACTION	LOYALTY
	Pearson Correlation	1	.640**	.691**	.713**
PERCEIVEDVALUE	Sig. (2-tailed)		0	0	0
	N	204	204	204	204
	Pearson Correlation	.640**	1	.708**	.588**
ATTITUDE	Sig. (2-tailed)	0		0	0
	N	204	204	204	204
	Pearson Correlation	.691**	.708**	1	.770**
CUSTOMERSATISFACTION	Sig. (2-tailed)	0	0		0
	N	204	204	204	204
	Pearson Correlation	.713**	.588**	.770**	1
LOYALTY	Sig. (2-tailed)	0	0	0	
	N	204	204	204	204

Table 3. Correlations between drivers of e-commerce

(independent variable) on customer satisfaction as well as customer loyalty (dependent variables), attitude (independent variable) on customer satisfaction and customer loyalty.

# 3.2 Effect of Perceived Value on Customer Satisfaction and Customer Loyalty with Respect to e-commerce Business

H2: There is a significant effect of Perceived value on Customer satisfaction and Customer loyalty with respect to e-commerce business

Multivariate analysis is done and the results are stated in Table 4. In the second effect, Wilks' Lamda, we find that the p value is .001 which is less than .05, hence the values are found to be highly significant enabling us to conclude that customer satisfaction and customer loyalty depends on perceived value.

Through the Table 5, we can find that customer satisfaction and customer loyalty depends on the perceived value. Here we see that the value is significant, as p is .001 for both customer satisfaction and customer loyalty, hence it can be concluded that there is a significant effect of the Perceived value on the dependent variables, Customer Satisfaction and Customer Loyalty pertaining to e-commerce business. The table also indicated that R-square is 0.757 for customer satisfaction and 0.746 for customer loyalty. This means that independent variable can explain 75.7, 74.6 percent variations in dependent

variables such as customer satisfaction and customer loyalty respectively. Hence the null hypothesis is rejected. This concludes that the regression model used in this study is adequate and also explains the fitness of the model.

# 3.3 Effect of Attitude on Customer Satisfaction and Customer Loyalty with Respect to e-commerce Business

H3: There is a significant effect of Attitude on Customer satisfaction and Customer loyalty with respect to e-commerce business.

The Multivariate analysis is done and the results are stated in Table 6. In the second effect, Wilks' Lamda, we find that the p value is .001 which is less than .05, hence the values are found to be highly significant enabling us to conclude that customer satisfaction and customer loyalty pertaining to e-commerce depends on attitude as well.

Through the Table 7, we can find that customer satisfaction and customer loyalty depends on the attitude. Here we see that the value is significant, as p is .001 for both customer satisfaction and customer loyalty, hence it can be concluded that there is a significant effect of the independent variable, attitude on the dependent variables, customer satisfaction and customer loyalty. More over the table indicated that R square is 0.867 for customer satisfaction, 0.769 for customer loyalty. This means that the independent variable attitude can explain 86.7,76.9 variations in dependent variables such as customer satis-

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 4. Multivariate test on perceived value

Effect		Value	F	Hypothesis df	Error df	Sig.	Noncent. Parameter	Observed Power <sup>d</sup>
	Pillai's Trace	0.991	10174.607 <sup>b</sup>	2	187	0	20349.214	1
Intoncent	Wilks' Lambda	0.009	10174.607 <sup>b</sup>	2	187	0	20349.214	1
Intercept	Hotelling's Trace	108.819	10174.607 <sup>b</sup>	2	187	0	20349.214	1
	Roy's Largest Root	108.819	10174.607 <sup>b</sup>	2	187	0	20349.214	1
PERCEIVEDVALUE	Pillai's Trace	1.323	24.472	30	376	0	734.148	1
	Wilks' Lambda	0.101	26.775 <sup>b</sup>	30	374	0	803.248	1
	Hotelling's Trace	4.712	29.212	30	372	0	876.367	1
	Roy's Largest Root	3.519	44.107°	15	188	0	661.607	1

Table 5. Tests of between-customer satisfaction and customer loyalty

Source	Source Dependent Variable		df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power <sup>c</sup>
Corrected Model	CUSTOMERSATISFACTION	2907.844ª	15	193.856	39.007	0	585.1	1
Corrected Woder	LOYALTY	3019.900 <sup>b</sup>	15	201.327	36.849	0	552.74	1
Intercept	CUSTOMERSATISFACTION	91881.527	1	91881.527	18487.878	0	18487.878	1
	LOYALTY	72097.034	1	72097.034	13196.113	0	13196.113	1
PERCEIVEDVALUE	CUSTOMERSATISFACTION	2907.844	15	193.856	39.007	0	585.1	1
PERCEIVEDVALUE	LOYALTY	3019.9	15	201.327	36.849	0	552.74	1
F	CUSTOMERSATISFACTION	934.327	188	4.97				
Error	LOYALTY	1027.139	188	5.464				
Takal	CUSTOMERSATISFACTION	200693	204					
Total	LOYALTY	164768	204					
Corrected Total	CUSTOMERSATISFACTION	3842.172	203					
	LOYALTY	4047.039	203					

a. R Squared = .757 (Adjusted R Squared = .737)

 Table 6.
 Multivariate tests on attitude

Effect		Value	F	Hypothesis df	Error df	Sig.	Noncent. Parameter	Observed Power <sup>d</sup>
	Pillai's Trace	.996	20230.616 <sup>b</sup>	2.000	179.000	.000	40461.233	1.000
	Wilks' Lambda	.004	20230.616 <sup>b</sup>	2.000	179.000	.000	40461.233	1.000
Intercept	Hotelling's Trace	226.040	20230.616 <sup>b</sup>	2.000	179.000	.000	40461.233	1.000
	Roy's Largest Root	226.040	20230.616 <sup>b</sup>	2.000	179.000	.000	40461.233	1.000
	Pillai's Trace	1.410	18.709	46.000	360.000	.000	860.636	1.000
ATTITUDE	Wilks' Lambda	.060	24.093 <sup>b</sup>	46.000	358.000	.000	1108.280	1.000
	Hotelling's Trace	7.895	30.550	46.000	356.000	.000	1405.302	1.000
	Roy's Largest Root	6.723	52.613°	23.000	180.000	.000	1210.101	1.000

b. R Squared = .746 (Adjusted R Squared = .726)

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power <sup>c</sup>
Corrected	CUSTOMERSATISFACTION	3330.718ª	23	144.814	50.966	.000	1172.207	1.000
Model	LOYALTY	3112.547 <sup>b</sup>	23	135.328	26.067	.000	599.532	1.000
Intercept	CUSTOMERSATISFACTION	110248.966	1	110248.966	38800.825	.000	38800.825	1.000
	LOYALTY	86494.547	1	86494.547	16660.399	.000	16660.399	1.000
ATTITUDE	CUSTOMERSATISFACTION	3330.718	23	144.814	50.966	.000	1172.207	1.000
	LOYALTY	3112.547	23	135.328	26.067	.000	599.532	1.000
Error	CUSTOMERSATISFACTION	511.453	180	2.841				
	LOYALTY	934.493	180	5.192				
Total	CUSTOMERSATISFACTION	200693.000	204					
	LOYALTY	164768.000	204					
Corrected	CUSTOMERSATISFACTION	3842.172	203					
Total	LOYALTY	4047.039	203					

Table 7. Tests of between-customer satisfaction and customer loyalty

faction and customer loyalty respectively. This concludes the regression model that is been used in this study is adequate and which explains the fitness of the model.

### 4. Conclusion

This study has highlighted the factors that are more important and crucial for e-commerce businesses. It has been proved that the perceived functional, social and economic values, attitude, customer satisfaction and customer loyalty are positively correlated with each other. The perceived value acquired by the customer boosts his attitude towards e-commerce. E-commerce is becoming an essential service in this modern era of technology. The perceived value has a significant effect on the customer satisfaction and customer loyalty. It is also clear from the study that attitude also has a significant effect on both the customer satisfaction and loyalty. We also see that there is a strong positive correlation between the customer satisfaction and loyalty. So, the increase in the customer satisfaction will lead to an increase in the number of loyal customers, thereby enhances the profit of the e-commerce businesses.

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a. R Squared = .867 (Adjusted R Squared = .850)

b. R Squared = .769 (Adjusted R Squared = .740)

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