

# Factors Affecting Usage of E-Commerce: A Study of Haryana Region

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**Abstract:** Present investigation analyses the factors affecting usage of e-commerce. Data was collected by the use of Multistage sampling technique. Results revealed that Ease of use, Awareness, facilitate transaction, Redressal of complaints, Building and maintaining relationship, Reliability, and Purchase decision are the major determinants affecting consumers' purchasing behavior towards e-commerce. To check the predictive value of six factors multiple regression was applied. Out of six predictors Ease of use, Awareness, Redressal of complaints and Reliability were found most significant predictors for Purchase decision. Hence, with these findings it was concluded that the marketers would definitely be able to create some more markets for e-commerce in future.

**Keywords:** E-commerce, E-commerce usage, Haryana, Online payment, Online shopping.

## I. EXTENDED SUMMARY

The quick increase of Internet usage, as well as, the systematic progression of Information Technology has changed the method, how, goods are bought and sold, resulting to the exponential expansion in the figure of online shoppers. That is why numbers of consumers using e-commerce to purchase products / services are getting increased. In the present investigation an attempt has been made to know the factors affecting usage of e-commerce and with specific to Haryana region. The study had mainly two objectives: first was to study the factors affecting usage of e-commerce and second was to examine the predictive value of the observed factors (Independent variables) for Purchase Decision (Dependent variable).

Multistage sampling technique has been used to collect the data by survey method using questionnaire. Overall sample consists of 560 respondents. Data, thus generated, was analyzed with the help of Factor Analysis and Multiple Regression with backward method. The findings of the study revealed that Ease of use, Awareness, facilitate transaction, Redressal of

complaints, Building and maintaining relationship, Reliability, and Purchase decision are the major determinants which affect the consumers purchasing behavior towards e-commerce.

Further, to check the predictive value of six factors namely Ease of use, Awareness, facilitate transaction, redressal of complaints, Building and maintaining relationship, Reliability for Purchase decision, multiple regression with backward method was applied. Out of six predictors Ease of use, Awareness, Redressal of complaints and Reliability were found to have most significant predictive value for Purchase decision. Hence, with a better understanding of consumers buying behavior towards e-commerce the marketers would be able to create more markets for e-commerce in future.

## II. INTRODUCTION

Internet marketing and e-consumer behavior has been intensely examined over the last few years. It is observed that user-friendly technology, like the internet has changed the way in which people converse, work and carry out different commercial activities. Internet technology, primarily the World Wide Web, as an electronic means of interchange offers new opportunities to firms to take up the internet as their alternate marketing tools. It is seen that E-commerce is also quickly altering the method people do business all over the globe. In the business-to-consumer (B2C) segment, sales through the web have been rising over the last few years. Customers, not only from well-developed countries but also from developing countries, are using new shopping channel. E-commerce endeavors to benefit up the implementation of business transactions over a variety of networks available. These developments might result in more effective performance (better quality, greater customer satisfaction, and better corporate decision making), greater economic efficacy (lower costs), and more rapid interchange (high speed, acceleration, or real-time interaction). To conclude, more specially, e-commerce enables the implementation of information-loaded transactions between two or more parties using integrated networks.

### III. E-COMMERCE INDUSTRY IN INDIA

India has an internet user base of about 462 million as of July 2016. Despite being the second largest user base in world, just behind China (721 million, 52.2% of population), the penetration of e-commerce is low down compared to markets like the United States (286 million, 88.5%), and Japan (115 million, 91%), but is increasing at a record rate, adding around 6 million new entrants every month (Internet LiveStats - [www.InternetLiveStats.com](http://www.InternetLiveStats.com)). In India, cash on delivery is the most favored payment method, accumulating 75% of the e-retail activities. Demand for international consumer products (counting long-tail items) is rising much faster than in-country supply from authorized distributors and e-commerce offerings. Biggest e-commerce companies in India are Flipkart, Snapdeal, Amazon India, Paytm. India's *retail market* is estimated at \$675 billion in 2016 and \$850 billion by 2020, - estimated compounded annual growth rate (CAGR) of 10%.

In 2009 India's e-commerce market was appreciated about \$3.9 billion, it grew up to \$12.6 billion in 2013. In 2013, the e-retail section was appreciated at \$2.3 billion. About 70% of India's e-commerce market is travel connected. As per Google India, in 2014 Q1, there were approximately 35 million e-shoppers in India & is foreseeable to cross 100 million marks by the end of 2017 end in comparison with 69 million previous years, increased by the upsurge of, among others, better logistical infrastructure, and broadband and internet-ready devices, an ASSOCHAM-Resurgent India study said (The Economic Times).

The year 2017 would perceive huge scale growth in the Indian e-commerce sector with amplified contribution from people crosswise the country. It also supposed that demonetization and a lessening in cash transaction, along with enhancement of net banking facilities, could really throw up opportunities for the Indian e-commerce sector. Mobile commerce is probable to jump to 45-50% in 2017 against the present 30-35% of e-commerce sales. Further it is noted that 50% sales come from mobile with majority being first-time users (News 18).

### IV. LITERATURE REVIEW

According to Jena (2001) e-commerce makes possible new types of business processes for getting customers as well as new types of products and selling environments. Usage of e-commerce technologies can effect in enhanced efficiencies in finding and servicing customers, conversing with trading partners and increasing new products and markets. Customers are learning about products through information on the web, purchasing products with information on the web, purchasing products by electronic cash and safe payment systems and having information and services delivered in ways not earlier feasible.

In the online shopping context, consumers assess their internet shopping experiences in terms of perceptions concerning

product information, method of payment, delivery conditions, service offered, risk involved, security, personalization, visual appeal, navigation, privacy, entertainment and enjoyment (Burke, 2002). Furthermore, there are some other issues which motivate consumers to shop online are security and privacy (Lee and Turban, 2001). A high level of security and privacy in the online shopping experience has an optimistic effect on consumer faith, owing to the lesser risk involved with swapping information. Further, as per Wolfinbarger and Gilly (2003) convenience & accessibility are certainly related with online shopping, because they can buy on the internet in the lenience of their home setting, it saves time & exertion, and they are able to purchase any time of the day or night. Particularly for consumers that, due to their extensive working hours, only have a small amount of free time, online shopping is an outstanding opportunity. According to Ahmad *et al.* (2004) certain website design factors intensely affect intentions of the customers to revisit an online retailer and in all probability, repurchase products or services. In fact, consumers are more probable to be fascinated to websites that are outstanding in design, user friendly, interactive and informative.

Offline shopping gives the opportunity to the consumers to see not only the real product but also face-to-face connections with the merchant or the salesperson. Though online shopping does not provide these benefits, it can considerably decrease the expenses in terms of effort, time, and money to e-consumers. Often, there are more options and opportunities online such as suitable methods of comparing of products, services and prices (Sulaiman *et al.*, 2005). Turban *et al.* (2009) allotted the common assessment framework (CAFs) which are the user-friendly of Web interface, delivery of specific and high-value services or products, its support of top management and technical infrastructure, level of faith between buyers and sellers, safety and control of the e-commerce system, the customer acceptance, the mass customization, competition and the market situation, the optimization of scope of business, and creating new partnerships and coalition.

Brynjolfsson and Saunders (2009) mentioned in his study that offline stores need the physical travel by the customer, resultant in additional costs for fuel and lost time, etc. In addition, customers have to work on an expensive trial and error basis to get the preferred product / service. Frequently, consumers might not be competent to travel to far-away locations. As such, they might end up overpaying for their purchases from local stores. The Web offers a wealthy source of information for price assessments to customers on their table, making customers favor B2C. This rich information storehouse is obtainable at approximately no cost. Sung (2010) pointed out important success factors for e-commerce firms. These are customer relationship and privacy of information, low cost operation, easiness of use, e-commerce strategy, methodological e-commerce proficiency, durability of systems, security of systems, prosperity of information, diversity of goods / services, speed of systems, payment procedure, services, delivery of goods / services, small price of goods and services, and

evaluation of e-commerce operations. As per Abid *et al.* (2011), Sajuyigbe (2012), and Xu and Quaddus (2009) e-commerce amplifies customer relationship through competence and effectiveness of workgroup and in this way it constructs and uphold relationship with customers and satisfied the customers. Duan (2012) Sajuyigbe (2012) Stockdale & Standing (2004) opined that e-commerce develops customer service, decreases personnel time, lessens tasks and decreased material expenses. Narwal and Sachdeva (2013) found in their study that buying with the help of information technology have multi purposes. They stated that online shopping makes the payment easy, information is plenty and purchased order can be booked easily, adopting online mode means saving the cost. Kang Lo *et al.* (2013) analyze the phenomenon in which the consumer presumes the prices of products & services on the Internet to be lesser than in traditional shops. Empirical results have revealed that consumers expect the similar prices in all online shops but do not compare prices in online and traditional stores. It can be presumed that additional significant factor of shopping online is similar prices in online shops. Price as an imperative phenomenon of online shopping also has been analyzed by Lo *et al.* (2014), whose results show that consumers observe online retailers' overhead costs as lesser than store-based retailers' overhead costs.

Panda and Swar (2014) recognized four factors, viz. anxiety, ease of use, usefulness and price, as the determinants of shopper buying behaviour online. Anxiety is the utmost significant factor and price, though a significant factor, does not influence shoppers as the other variables. Mohammed (2014) proposed to discover the factors that affect the online shopping intention amongst young consumers. The tested results established that the effect for perceived usefulness, perceived risk and belief influences an online shopping intention. Astonishingly, the results could not disclose any statistically important effect for perceived ease of use and online experience, and it can be assumed that those factors are not very significant in shopping online. Similarly, Sam and Sharma (2015) discovered the factors affecting consumers' decision to shop online, and how the decision can be affected by product type. The results exposed that an imperative factor influencing the consumer's decision to buy online is an availability of product information on websites. Ease of use is another hopeful factor to buy online. It was also established that products such as movies, music and video games are more adequate items for online shopping. Verma and Jain (2015) sought to recognize certain features of people making purchases online. The specific term - "need for cognition" (NFC) - has been analyzed, which reflects the propensity of individuals to be involved in thinking and enjoy it. There are many Factors functioning in NFC positive segment as: inclination to be a progressive user, a confident user of newest in information technology, using it as tool for knowledge investigation, the capability to evaluate behavior of a programme, an effectual end user and knowledge of hardware. The noteworthy factors of online shopping were an attitude to

online shopping and a change of customers' attitudes toward making online purchases.

## V. STATEMENT OF PROBLEM

Here research problem is the deficiency of research in the arena of e-commerce and consumer decision to buy online. Without knowing the factors boosting online shopping it is hard to develop e-commerce, as well as to recognize what is required to attain and what criteria the e-commerce should be consistent with. The key aim of the investigation is to discover the factors that inspire online shopping and affect consumers' purchase decisions. Although there are some studies in this area but in the present study an attempt has been made to investigate all the possible factors in a comprehensive manner. The present study analyzes many e-commercial aspects related to safety, quick delivery, comparable prices, convenience, cheaper prices, varied choice, ease of use, redressal of complaints, facilitation of transactions, building and maintaining relationships, etc. The present study has been carried out in Haryana region.

Hence, the title of the study is "Factors affecting usage of e-commerce: A study of Haryana Region".

## VI. OBJECTIVES

- To study the factors affecting usage of e-commerce.
- To examine the predictive value of the factors - Ease of use, Awareness, Facilitate transaction, Rederessal of complaints, Building and maintaining relationship and Reliability (Independent variables) for Purchase Decision (Dependent variable).

## VII. RESEARCH METHODOLOGY

In the present study Haryana, a northern state of India, is taken as universe. Multistage sampling technique has been used to collect the data. The state of Haryana has been divided into four divisions / zones designated as Division / Zone I (Ambala, Kaithal, Kurukshetra, Panchkula and Yamuna Nagar), Division / Zone II (Gurgaon, Faridabad, Mahendragarh, Mewat, Palwal and Rewari), Division / Zone III (Bhiwani, Fatehabad, Hisar, Jind, Sirsa and Charkhi Dadri), and Division / Zone IV (Jhajjar, Karnal, Panipat, Rohtak and Sonapat). Each Division / Zone comprises 5 to 6 districts out which two districts from each division / zone have been selected. Finally, respondents were selected from each district on the basis of judgment sampling method. Overall sample consists of 560 respondents comprising of different age group, male and female, having different educational qualifications, belonging to different areas, engaged in different occupations, and falling in different income groups.

The present study is based on primary as well as secondary data. Survey method has been used for the purpose of data collection.

The primary data has been collected through questionnaire consisting of 46 statements using five points likert scale from customers of Haryana. A pilot survey was conducted on 40 respondents to test its workability and drawbacks in the questionnaire were noted and rectified.

Secondary data was collected from textbooks, periodicals, newspapers, research journals, magazines, internet, etc. For this purpose various libraries, research institutions and universities were visited.

### VIII. RESULTS

The data, thus generated, have been properly classified and arranged in tables, charts and diagrams. To analyze the tabulated data various statistical techniques consistent to the objectives of the study have been used. These are Factor Analysis and Multiple Regression with backward method.

### IX. FACTOR ANALYSIS

To test the workability of Factor Analysis, KMO and Bartlett's Test was applied.

TABLE I: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin (KMO)	0.96	
Measure of Sampling Adequacy		
Bartlett's Test of Sphericity	Approx. Chi-Square	15434.85
	Df	1035
	Sig.	0.000
Cronbach's Alpha	0.97	
No. of items	46	

As seen from above Table I, when the data is checked for reliability, Cronbach's alpha is estimated to be 0.97 for all 46 variables. The reliability analysis in terms of Cronbach's alpha is very good for the construct indicating that further analysis can be carried out.

Bartlett test of Sphericity or Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is used. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the sample is 0.96 which is greater than 0.5, suggesting thereby that the data is adequate for Factor Analysis. The Bartlett's test is found to be highly significant ( $p < .000$ ) thus, it was decided to apply Factor Analysis.

TABLE II: DETAILS OF THE EXTRACTED FACTORS

Factors	Variables Included in the Factor	Factor Loadings
<i>Factor 1 Ease of Use (<math>\alpha=0.89</math>)</i>		
1	Reduces travelling time and cost	0.71
2	Transaction can be made while sitting at home / office	0.69
3	Making payment is quick	0.66
4	Purchase order can be placed easily	0.59
5	Facilitates offline / traditional learning	0.58
6	Confirmation of placed order of purchase through e-mail/sms	0.55
7	Shipping charges, if any, are informed in advance	0.53
8	It is customer friendly	0.48
9	Prices of different products / services are compared easily	0.48
<i>Factor 2 Awareness (<math>\alpha=0.89</math>)</i>		
1	Awareness about latest technology	0.77
2	Links given on the website help to collect more information	0.67
3	Making awareness of various schemes offered by different companies	0.67
4	Sufficient information can be collected about products / services	0.67
5	Presentation of website to attract the customers	0.54
6	Getting advance information about the delivery	0.49
7	Facilitate 24x7 services	0.48
<i>Factor 3 Facilitate Transaction (<math>\alpha=0.87</math>)</i>		
1	Used in the business transactions	0.72
2	Purchasing products / services online	0.71

Factors	Variables Included in the Factor	Factor Loadings
3	Used in any transaction	0.71
4	Purchasing products / services offline by using online information	0.70
5	Making comparison among products / services	0.65
6	Searching alternatives of goods and services	0.65
7	Making payment-through debit / credit card	0.50
8	Convenient in use	0.49
<i>Factor 4 Redressal of Complaints (<math>\alpha=0.87</math>)</i>		
1	Defective products are replaced without any extra charges	0.72
2	Complaints are redressed effectively and well in time	0.65
3	Payment can be made at the time of delivery of products/services	0.57
4	Reduces the cost of products / services	0.57
5	Complains can be filed online in case of defective products	0.56
6	Same products / services are delivered for which order was placed	0.49
7	Delivery of the products / services is well in time	0.48
<i>Factor 5 Building and Maintaining Relationship (<math>\alpha=0.87</math>)</i>		
1	Building customer relationship	0.71
2	Building customer loyalty	0.68
3	E-records are easy to maintain over a period of time	0.62
4	E-bill saves paper therefore saves trees / environment	0.59
5	Generate e-bill for permanent record	0.57
<i>Factor 6 Reliability (<math>\alpha=0.83</math>)</i>		
1	Making payment is safe and secure	0.68
2	Online shopping is better than offline shopping	0.64
3	Giving personal information is safe	0.63
4	Brings transparency in transaction	0.58
5	Quality services are offered	0.55
6	No tax evasion by using e-commerce	0.45
<i>Factor 7 Purchase Decision (<math>\alpha=0.82</math>)</i>		
1	Facilitates the offline purchase decision	0.67
2	Enhances decision making skills	0.63
3	Facilitates prompt decision making	0.55
4	Best products/services can be purchased	0.43

*A. Factor 1: Ease of Use*

It is the ease of use of e-commerce, which makes it customer friendly therefore, is being used for different purposes. The basic structure of Factor-1 reveals that all the variables loaded on this factor are having the positive loadings thereby sharing most of their variances among themselves. E-commerce reduces traveling time and cost because shopping can be done by sitting at home. Making payment is easy and quick, therefore there is no problem in placing the order for purchase and confirmation of the same can be got through e-mail/sms. Shipping charges if any are informed in advance. E-commerce is also facilitating

traditional / offline shopping as it is easy to compare the prices of products / services easily and customers can collect plethora of information about products / services in advance. Thus, it is the ease of use which encourages the customers for usage of e-commerce.

*B. Factor 2: Awareness*

E-commerce creates awareness amongst consumers about a range of offers given by companies, on the bases of which consumers can choose to purchase products / services.

Thorough investigation of this factor suggests that consumers can take prompt decision to purchase best products / services of their choice as all the information relating to latest technology, various schemes offered by companies, sufficient information about different alternatives of products / services and delivery of products. All these facilities are available round the clock and motivate the consumers to use e-commerce. The results exposed that an imperative factor influencing the consumer's decision to buy online is an availability of product information on websites. Thus, it can be concluded that e-commerce makes the consumers aware about all the possible information relating to various products / services alternatives thereby making him a well-informed consumer.

### *C. Factor 3: Facilitate Transaction*

E-commerce facilitates various transactions between buyer and seller. It is used not only in business transactions but also in other transactions i.e. buying and selling, downloading information for further use. Information, thus generated, can be used for online transaction as well as offline transaction as searching alternatives, making comparison and easy payment through debit / credit card is possible. Overall e-commerce is very convenient in use thereby facilitate any transaction which consumers wants.

### *D. Factor 4: Redressal of Complaints*

The variables loaded on this factor viz. defective products are replaced, complaints are redressed effectively and well in time, defective products / services complaints filed online, make it amply clear that there is a well-established system through which any complaint made by consumers are handled effectively which may help in building and maintaining confidence among consumers. Hence, strong redressal system is attracting the consumers towards e-commerce. Apart from this, supply chain management ensures the delivery of products / services as per the order and well in time. It has also reduced the cost to some extent by eliminating middlemen.

### *E. Factor 5: Building and Maintaining Relationship*

Today, usage of e-commerce is increasing as corporates are building not only strong relationship with customers, but also maintaining them in the long run. This all can also be done easily by maintaining the records of e-bill generated after every transaction. This also helps in saving the environment as least paper work is required. Thus, it can be concluded that direct links with customers maintaining e-records of all transaction in the long run help the corporate to build and maintain long term relationship with customers and vice versa.

### *F. Factor 6: Reliability*

All the variables loaded on this factor are having positive loading indicating thereby that all these variables share most of their variances among themselves, hence co-vary. The nature of this factor exhibits that using e-commerce for making any transaction is reliable. Disclosing information is very safe as the system is full proof of security. Moreover, e-commerce brings transparency in the transaction and no tax evasion is possible through e-commerce. Quality services are offered by the companies to make it really effective. Thus, in light of the above discussion it can be inferred that online shopping is better than offline shopping as reliability of usage of e-commerce is playing very significant role.

### *G. Factor 7: Purchase Decision*

Ease of use, awareness, redressal of complaints, reliability, etc. among consumers facilitate purchase decision which is the ultimate target of any company. Consumers can make purchase offline, by using information collected through e-commerce as well as online purchase. E-commerce enhances the decision making skills of consumers which facilitate prompt and effective decision making, enabling the consumers to purchase best products / services. From the above discussion it can be inferred that e-commerce influences the consumers to make final purchase.

## X. MULTIPLE REGRESSION WITH BACKWARD METHOD

In light of the second objective researchers have attempted to explain the impact of six independent variables (Ease of use, awareness, facilitate transaction, redressal of complaints, building & maintaining relationship, and reliability) on dependent variable (purchase decision). Multiple Regression with backward method is used for demonstrating the impact of all six predictors on Purchase decision. In Backward Regression Method, first of all six predictors are entered at once and then those variables with significance levels below the default criterion of 0.1 are removed. Model here refers to steps of regression equations.

Following table reports the values of the regression coefficients (both standardized and unstandardized) and measures the probability that whether a linear relationship exists between each Independent Variable (IV) and the Dependent Variable (DV). In the regression tables 'B' is the slope of the line. 'S.E. (B)' is the standard error of B. 'Beta' is the standardized regression coefficient. 'Sig. (p)' is the significance level for the test of the null hypothesis that the value of the coefficient is zero in the population. The same is discussed in the following texts.

Regression line of purchase decision on the six predictors as:

$$Y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$$

$$Y (\text{Purchase Decision}) = b_0 (\text{constant}) + b_1 (\text{Ease of use}) + b_2 (\text{Awareness}) + b_3 (\text{Facilitate transaction}) + b_4 (\text{Redressal of complaints}) + b_5 (\text{Building \& maintaining relationship}) + b_6 (\text{Reliability})$$

TABLE III: RESULTS OF REGRESSION ANALYSIS (WITH BACKWARD METHOD)

Variables	Model 1				Model 2				Model 3			
	B	SE	$\beta$	Sig.(p)	B	SE	$\beta$	Sig.(p)	B	SE	$\beta$	Sig.(p)
Constant	1.127	.523		.032	1.165	.468		.013	1.217	.468		.009
Ease of Use	.097	.020	.220	.000	.098	.019	.222	.000	.105	.018	.238	.000
Awareness	.172	.026	.297	.000	.173	.026	.297	.000	.183	.025	.314	.000
Facilitate Transaction	.002	.011	.005	.869								
Redressal of Complaints	.138	.027	.233	.000	.138	.027	.233	.000	.143	.026	.241	.000
Building & Maintaining Relationship	.049	.033	.063	.136	.049	.033	.063	.136				
Reliability	.045	.029	.063	.121	.045		.064	.116	.056	.028	.079	.044
R <sup>2</sup>	.588				.588				.586			
Adjusted R <sup>2</sup>	.584				.584				.583			
F	131.574				158.161				196.707			
$\Delta R^2$												
$\Delta F$												
N	560				560				560			

\* p<.05, \*\*p<.01, \*\*\*p<.001

These Statistics reflect the variance accounted for when regression is performed with the remaining variables respectively in each step after the exclusion of the non-significant variable in the next step.

Results interpreted that r<sup>2</sup> is .58 when all the six predictors are included in Step 1. This means that 58 percent of the variance in purchase decision is associated with changes in the variables of Ease of use, awareness, facilitate transaction, redressal of complaints, building and maintaining relationship and reliability for this sample. The estimated coefficient of determination for the population (i.e. adjusted r<sup>2</sup>) is 58 percent. In Model 1, Facilitate Transaction was found non-significant (p=.869), so it was extracted in the next step of Regression Analysis.

In Step 2 when the variable facilitate transaction is removed, then there is a again same results. Here r<sup>2</sup> is .588 and estimated coefficient of determination (i.e. adjusted r<sup>2</sup>) is 58.4 percent. It is found that significance value of building and maintaining relationship observed to be .136 which is greater than .05; hence this is also extracted in the next step of Multiple Regression. Thus, in model-2 building and maintaining relationship is found non-significant. In Step 3 again, when the variable building and maintaining relationship is removed, then there is variability in both these figures comparing with the Step 2, here r<sup>2</sup> is .586 and estimated coefficient of determination (i.e. adjusted r<sup>2</sup>) is .583.

These results indicate that the joint prediction of significant variables i.e. ease of use, awareness, redressal of complaints, and reliability for total variance in purchase decision is 58%.

All of these four significant predictors, were found positive predictor indicates thereby that focusing on these factors there is more inclination towards purchase decision. Although if all six variables are taken in regression equation, we observe that almost r<sup>2</sup> and adjusted r<sup>2</sup> is the same in all three models of backward regression. Hence, above discussed four factors are most significant predictors for purchase decision for the present study.

## XI. DISCUSSION

In the present study, the Factor Analysis extracted seven factors i.e. ease of use, awareness, facilitate transaction, redressal of complaints, building and maintaining relationship, reliability and purchase decision. All these extracted factors represent the factors influencing usage of e-commerce. The cronbach's Alpha of all these factors vary from 0.82 to 0.89. The first factor i.e. ease of use indicates that it is easy to use e-commerce at any time and any place. We can use e-commerce by sitting at home / office and transaction can be made easily. Therefore, it reduces the travelling time and cost, making payment too easy, purchase order can also be placed and consumers can get the confirmation of the same through e-mail, sms, etc. It also facilitates offline / traditional learning. This ease of use has made e-commerce customer friendly. The above findings are supported by the findings of Alam *et al.* (2009), Balanger *et al.* (2002), Chawla (2001), and Karacapilidies and Moraitis (2011) who found that use of alternatives, ease of use, ability to perform

e-commerce anywhere at any time and it is a decision making tool. The present results also partially supports the findings of Panda & Swar (2014) who recognized four factors, viz. anxiety, ease of use, usefulness and price, as the determinants of shopper buying behavior online.

Shivankutty & Sudhakaran (2011) and Tsai & Chuang (2011) found that consumers are aware of online information (newspapers). The present findings also support these findings as reflected by awareness, which is another important factor influencing usage of e-commerce. Rajshekha (2004) is also of the same opinion that customer awareness is an important factor. For awareness purpose e-commerce companies have their own websites where different links are given so that consumers can become aware about various schemes offered by the companies (Jena, 2001). Consumers can collect information about products / services and all the information is available 24x7, thus, giving an extra opportunity to consumers to collect information any time. The ease of use and high awareness among consumers can facilitate transaction that is why e-commerce is being used for many transactions. Searching of alternatives, comparison among them and various payment options further facilitate transactions. Alam *et al.* (2009) and Karacapilidis and Moraitis (2011) support these findings. They found that the alternatives searched and compare them by the customers facilitate any transactions. The present findings support the findings of Sam & Sharma (2015) who discovered the factors affecting consumers' decision to shop online, and how the decision can be affected by product type.

Redressal of complaints is another important factor which influences the usage of e-commerce. Consumers can make complaints online which are redressed effectively and well in time by companies. Defective products are replaced without any extra charges. Making payment at the time of delivery of the product is giving leverage to the consumers. Though, e-commerce companies are trying their best to deliver the same product for which order was placed and delivering the same well in time. It is not only the companies but consumer can also build and maintain relationship, therefore it's a win-win situation from both consumers and companies (Suh and Han, 2003). It also helps in building and maintaining loyalty (Jena, 2001). Consumers are having the option to maintain e-records as a permanent record for future reference and this action of saving e-bill by consumers may help to save the environment. The records of all transactions can make e-commerce a reliable one, Chawla (2001) is also of the same opinion that e-commerce encourages buying and selling in a paperless manner and maintain e-records for future.

Balanger *et al.* (2002) and Chaudhari (2001) found that privacy and security of personal information is always there, indicating reliability of e-commerce which is one of the finding of present study. This reliability of e-commerce can attract more consumers. The reliability of e-commerce is also reflected through its full proof payment system. Moreover, giving personal information is always safe. However, Suh and Han (2003) do not support the above findings. They observed that many consumers are

reluctant to provide personal information to websites because they do not believe in e-commerce security. E-commerce has brought transparency in transaction, therefore, no tax evasion is possible. All these issues make it more reliable. Moreover, e-commerce not only facilitates online purchase decision but also offline purchase decision. These findings are inconformity with the findings of Chen *et al.* (2009), Kim and Srivastava (2007), Kim *et al.* (2008), and Rustam & Fei (2005), as they also observed that the e-commerce helps in purchase decision under all situations. E-commerce enhances decision making skills of consumers, therefore facilitates prompt decision making (Balanger *et al.*, 2002, Karacapilidis & Moraitis, 2011, Kim & Srivastava, 2007, Shi, 2011 and Senecal *et al.*, 2005). Thus, best products / services can be purchased by using e-commerce.

Further in the present investigation an attempt was made to examine the predictive value of the factors- Ease of use, Awareness, Facilitate transaction, Redressal of complaints, Building and maintaining relationship and Reliability (Independent variables) for Purchase Decision (Dependent variable), for this Multiple Regression with backward method was applied. The results of the Regression analysis reveal that out of six independent variables, four variables namely: Ease of use, awareness, redressal of complaints and reliability contributes the most in explaining the purchase decision. All these factors were found to be positive predictors indicating thereby that with increase of these, purchase decision is also likely to be increased.

## XII. SCOPE FOR FUTURE RESEARCH

Present study is focused on factors affecting usage of e-commerce in Haryana. A further research can be carried out by enhancing the scope of study i.e. area. Research can also be carried out to know the impact of e-commerce on consumer behavior or role of e-commerce in consumer decision making. Another possible area of future research may be e-commerce practices in India. Last but not the least initiatives taken by e-commerce companies to attract the consumers may be another possible topic for further research.

## XIII. CONCLUSION

There are many factors i.e. ease of use, awareness, facilitate transaction, redressal of complaints, building and maintaining relationship, reliability and purchase decision which are influencing usage of e-commerce. In the light of the importance of these factors for consumers, corporate are advised to consider all these factors while framing policies and strategies for consumers. Corporate should redress the complaints for the earliest and effectively. It will help to retain the existing customers and more customers can be brought into its fold. Corporate should enhance the reliability of e-commerce by ensuring the consumer that they are always safe in online transaction, payment and delivery, etc. Corporate should make every effort to deliver the same and therefore should strengthen their supply chain management to ensure the smooth delivery.

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