



AN EMPIRICAL STUDY OF DETERMINANTS OF CONSUMERS' ADOPTION OF ECOMMERCE

Dr. Gomathy Thyagarajan

Faculty-General Management, N.L. Dalmia Institute of Management Studies and Research, Mumbai.

Abstract

Electronic commerce is clearly an essential ingredient of India's trade facilitation policy. Competition is expected to continue, with Ecommerce companies experimenting with different ways to attract customers and increase online traffic. As the customers progress from research to purchase to fulfillment stages, their preferences and expectations fluctuates and changes fast. Ecommerce companies need to understand these change drivers and adapt their proposition to live up to customers' expectations. Against this backdrop, the present study is designed in two parts. Firstly, the study will examine the existing literature related to the factors that affecting consumer acceptance and adoption of Ecommerce in India and worldwide. Secondly, with the help of a survey, the study intends to find out the determinants of Consumers' adoption of Ecommerce with respect to Mumbai city. The study has found a positive relationship between attitude, relative advantages and consumers' adoption levels.

Keywords: *Ecommerce, Adoption, Relative Advantages, Perceived Behavioural Control, Attitude towards Behaviour.*

INTRODUCTION

Ecommerce or electronic commerce refers to the purchase and sale of goods and/or services through an electronic platform such as the Internet. These business transactions fall under different categories such as business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), consumer-to-business (C2B) or the recently evolved business-to-business-to-consumer (B2B2C). The Indian Ecommerce sector has witnessed an unprecedented growth with a metamorphosis of Ecommerce into a variation of online commerce that is flexible and adaptable. Technology adoption by the consumers' led by the increasing use of devices such as tablets and smart phones, easy access to the internet through broadband, 2G, 3G, etc, and increased online consumer base helped aid this growth. Ecommerce has changed the shopping habit of Indians. Consumers are more aware and connected and have ample choices and information at their fingertips today. They are shifting from their traditional behavior and preferences, which has facilitated Ecommerce companies to analyze and understand behaviour pattern and offer more interesting services and products.

With the entry of Ecommerce giants such as Amazon and Alibaba, the competition is expected to further intensify. Both these international players have the experience and expertise to accelerate and drive the Indian Ecommerce market. This tough scenario has compelled the Indian companies to continue their focus on innovating on multiple customer touch points, expanding sellers and selection on their platforms and providing seamless and speedy delivery services in order to compete with the international counterparts. Since 2012 Indian Ecommerce sector grew the fastest in Asia-Pacific region. The market that was worth \$2.5 billion in 2009, \$6.3 billion in 2011 and \$16 billion in 2013 is projected to reach \$20 billion in 2015 and \$56 billion by the year 2023¹. In terms of Internet penetration growth, India is at an inflection point according to KPCB partner Mary Meeker's 2015 Internet trends report.

Electronic commerce is clearly an essential ingredient of India's trade facilitation policy. Competition is expected to continue, with Ecommerce companies experimenting with different ways to attract customers and increase online traffic. There is a recent trend of relatively newer products such as grocery, hygiene, and healthcare products being purchased online. Changes in lifestyle and shopping choices will see buyers adopting more of online and mobile channel over physical channel to save time and seek wider range and possibly comparative pricing. As the customers progress from research to purchase to fulfillment stages, their preferences and expectations fluctuates and changes fast. Ecommerce companies need to understand these change drivers and adapt their proposition to live up to customers' expectations. Against this backdrop, the present study is designed in two parts. Firstly, the study will examine the existing literature related to the factors that affecting consumer acceptance and adoption of Ecommerce in India and worldwide. Secondly, with the help of a survey, the study intends to find out the determinants of Consumers' adoption of Ecommerce with respect to Mumbai city.

OBJECTIVES OF THE STUDY

- The main objective of this study is to identify the determinants of Ecommerce adoption by consumers.

¹ *Ecommerce in India 2015 – Vouchercloud News I Like, January 24, 2015*



REVIEW OF LITERATURE

Consumer acceptance and adoption behavior for products and services is still the emerging field of Ecommerce. Adoption is an individual's decision to become a user of a product or a service. The following section reviews prior literature on Consumers' adoption studies with reference to Ecommerce. The review is primarily of peer-reviewed or edited publications.

LITERATURE REVIEW ON FACTORS AFFECTING CONSUMER ADOPTION OF ECOMMERCE

According to Ahuja, Gupta and Raman (2003), Basu and Muylle (2003) and Bingi and Khamalah (2000), even though Ecommerce is spreading worldwide, customers are still hesitant to deal with it because of the security and privacy issues. Turban (2004) and Zwass (2003), defined adoption of Ecommerce as the use of computer networks, principally the internet, for sharing of business information; maintaining of business relationships; and conducting of business transactions.

A study of consumer-perceived risk in Ecommerce transactions by Salam and Pegels (2003) suggest that consumers simply do not trust online vendors to engage in transactions involving money and personal information. They have also said that consumer-perceived risk is reduced with the increase in institutional trust and economic incentive.

In a survey carried out by Ahmed (2007) in Malaysia, the findings suggest that the major concerns on Ecommerce adoption are privacy and security over online transaction process and reliability and trust of online vendors. They suggested that in order to sustain and compete, the organizations are expected to scale up their resources and put more efforts to ensure that consumers' concerns are adequately addressed.

In another study carried out by Dauda (2007), the consumers' relative advantage, trust, Internet experience and banking needs are the most important factors that affect adoption in Malaysia. Organizations were averse to use Ecommerce as they felt that the transactions conducted electronically were open to viruses and hackers which were beyond their control. According to Lee, Yuen and Lee (2005) risk, trust, low security in Ecommerce are the main reasons why people do not adopt the online transactions.

The main factors identified by Sofany, Malki, Alzamel & Alharbi (2012) are the user interface, security, quality, service information quality, privacy and risk perception, and privacy perception. Iqbal (2012) suggests that a customer's view about online shopping advantages and his trust on online vendor are the two critical variables affecting his intention to purchase online.

Abhijit Mitra. (2013) in his study concluded that Ecommerce has not only broken the geographical limitations but also brought a revolution in India and will grow very rapidly in the next five years. Gangeshwar (2013) concludes that Even though security, dependency on technology and privacy are some of the drawbacks of Ecommerce there definitely is a bright future for Ecommerce in India.

LITERATURE REVIEW ON ADOPTION MODELS

Some of the models that pursue the adopter-centric approach are Diffusion of Innovations Theory (DoI), Roger 1995, Theory of Reasoned Action (TRA), Fishbein et al. 1975, Technology Acceptance Model (TAM), Davis 1989 and Theory of Planned Behaviour (TPB) by Ajzen 1991.

The DOI model has identified relative advantage, compatibility, complexity, trialability and observability as the main characteristics that increase its chances of wide acceptance within the population. TRA focuses on the attitude towards behaviour and the attitude towards subjective norms. TAM model was derived from TRA, designed with the intention of explaining computer-usage behavior. The two key determinants of TAM model for describing technology adoption behaviour are the technology's perceived usefulness and its perceived ease of use. TPB assumes three independent factors that influence intention. They are attitude towards behavior, subjective norms and perceived behavior control.

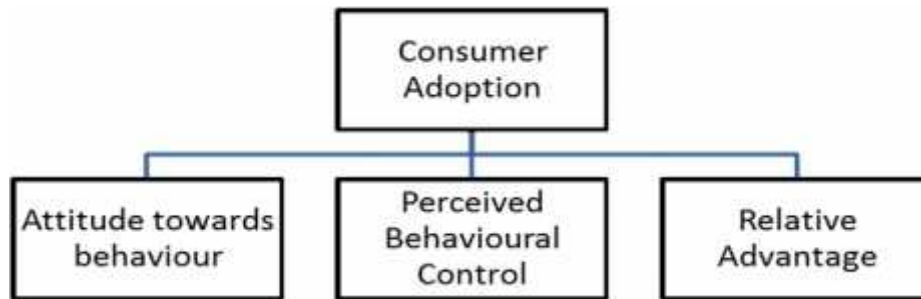
RESEARCH DESIGN AND METHODOLOGY

The main objective of this study is to identify the factors that determine the consumers' willingness to engage in Ecommerce transactions, and further study the relationship between those factors. After a detailed analysis of the literature, the model of this study has been designed as given below. The key variables extracted for the purpose of the study are:

- Attitude towards behaviour
- Perceived Behavioural Control
- Relative advantage

The Framework of the study is as follows:

Figure 1



Frame work of the Study

Attitude towards behaviour and Perceived behaviour control have been proposed by Ajzen 1991 in his Theory of Planned Behaviour (TPB) model. Relative advantage has been proposed by Diffusion of Innovations Theory (DoI) by Roger 1995. Attitude towards behaviour represents individual perceptions. Perceived Behavioural Control represents the perceived ease and efficiency that users can expect from this new and depends on past experiences and future hindrances. The relative advantage of Ecommerce for a consumer represents an assumption that if an individual believes that Ecommerce as a medium will simplify life and it is quite likely that he will adopt Ecommerce.

HYPOTHESES

1. Ho1 - There is no relation between relative advantages of Ecommerce and consumer adoption.
2. Ho2 - There is no relation between attitude towards behaviour of Ecommerce and consumer adoption.
3. Ho3 - There is no influence of perceived behavioural control of Ecommerce on consumer adoption.

SAMPLING DESIGN AND DATA COLLECTION

The sampling methods used in this study are convenient and judgment techniques. 100 educated retail customers geographically spread across Mumbai city were administered with a survey based questionnaire. All the questions (except the questions related to the demographic characteristics) were measured on a Seven-point Likert scale was used to capture the responses in the study where “7” was the “highest level of agreement” and “1” was the “lowest level of agreement. The unit of observation and analysis of survey was only among retail investors.

DISCUSSIONS AND FINDINGS

This study covered a sample of 100 respondents and out of which 67 respondents were men and 33 were women. The profile of the respondents is discussed below.

Table- 1,Profile of the Respondents

Demographics	Items	No. of Respondents	Percentage
Gender	Male	67	67.00
	Female	33	33.00
Age Group	20 – 30	49	49.00
	31 – 40	27	27.00
	41 – 50	19	19.00
	50 and above	5	5.00
Education	Graduate	31	31.00
	Postgraduate	58	58.00
	Other	11	11.00

Source: Compiled from Primary data.

Table -2,Adoption Details

Adoption of Ecommerce	Adopters	81	81.00
	Non Adopters	19	19.00

Source: Compiled from Primary data

This study covered a sample of 100 respondents and out of which 67 respondents were men and 33 were women. It can be seen from the sample that the largest age group that responded was in the age group 20 to 30 years (49 per cent) followed by

the age group 31 to 40 years (27 per cent). Around 55 per cent of the respondents were post graduates followed by graduate respondents at 31 per cent. Another interesting observation that can be made from the study is. 81 per cent of the respondents are adopters of Ecommerce out of which around 49 per cent are very active adopters of Ecommerce followed by 21 per cent respondents who have been using selected Ecommerce sites. The study further found that the remaining respondents are not very frequent users of Ecommerce.

Table- 2,Correlation Coefficients

Determinants	Ecommerce Adoption
Perceived behavioural control	.144
Sig (2 tailed)	.296
N	100
Attitude towards behavior	.270*
Sig (2 tailed)	.048
N	100
Relative advantages	.403**
Sig (2 tailed)	.002
N	100
* Correlation is significant at the 0.05 level (2-tailed)	
** Correlation is significant at the 0.01 level (2-tailed)	

Source: Compiled from Primary data

The adopters were very satisfied with Ecommerce because of the various advantages it offers like ease of use, simplicity and online shopping advantages. Even though Ecommerce sites are user friendly, non-adopters are still reluctant to adopt the system because of several reasons. One of the main that has been observed to have a major influence on the customers who have still not adopted Ecommerce is their attitude. The consumers have very strong opinion against Ecommerce and prefer the conventional method. Some of the reasons cited for the same are security, hacking, privacy and perceived trust.

Further, the research instrument was tested for reliability using Cronbach's coefficient alpha estimate. The Cronbach's alpha values were found to exceed the suggested level of 0.7, showing internal consistency of each construct. The variables of study were measured by correlation and the regression analysis on selected variables. The correlations are shown in the following table 2. Since the significance of relative advantages and trust on Ecommerce adoption were observed, the regression analysis is run on these two factors as shown in table 3.

Table -3,Regression Analysis

Determinants	Relative advantages	Attitude towards behavior
Correlation Coefficient	.403	.270
Coefficient of Determination	.162	.87235
Std. Error of the Estimate	.070	.91783

Source: Compiled from Primary data

From the above tables, it can be observed that there is a positive relationship between relative advantages and adoption levels. This implies that there is significant influence of relative advantages over Consumers' adoption of Ecommerce. So if Ecommerce companies offer more advantages to the consumers, then automatically the adoption level is also likely to go up. Further, the study also found that there is no significant relationship of Perceived behavioural control on consumer adoption levels of Ecommerce. In other words Perceived behavioural control is found to have no effect on consumers' adoption of Ecommerce. On the other hand, attitude towards behavior is found to have a very strong positive relationship on consumer adoption levels of Ecommerce. Thus the results indicate that relative advantages and attitude towards behavior are the two major determinants of Consumers' Ecommerce adoption.

CONCLUSION AND RECOMMENDATIONS

The results of the study conclude that relative advantages and attitude towards behavior are the most important determinants of Ecommerce adoption by consumers. Apart from these two major determinants, it has also been found that the awareness level of Ecommerce among non adopters is also a major reason why consumers hesitate to adopt Ecommerce. The relatively small size of sample limits generalization of the outcome of the study. Another major limitation is the study is concentrated only in Mumbai region and hence the result may vary with location and the demography of the consumers. Based on

observations made, the study recommends the following. The Ecommerce vendors can focus on coming out with more foolproof systems which offers more relative advantages to the consumers' in terms of simplicity, easy to use, compatibility, cash on delivery, building trust, protecting consumers' identity, smooth transactions etc. A proper grievance redressal mechanism will further boost the customer's confidence. Ironing out the obstacles will make Ecommerce sector to unleash its full potential and in turn, work wonders for the economy.

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