

# Empirical Analysis of Bangladesh E-Commerce Process in Term of Online Trading

Mohammad Shahriar Khan

Co-Founder and COO, NexKode Limited

## Abstract

*In present internet world has opened up tremendous opportunities in commerce and trade, which is also termed as E-Commerce application. The E-commerce application also includes the utilization of internet in different kinds of real time application e-commerce service, supply of goods, payment, identification and advertising and so on. It employs the different kinds of opportunity for “crossing boundary” as new business models, new entrants etc. In developing countries, the medium and micro enterprises and also big companies have adopted different e-commerce business process. Thus, in this paper, reviews the Bangladesh e-commerce process in term of online trading and additionally provides challenges of E-commerce and it's solution in Bangladesh and this process leads to various kinds of facilities to promote the Bangladesh to adopt the different kind of new technologies in different kinds of sectors. The empirical analysis is done by surveying important questionnaires from the different kinds of e-commerce user, provider and their associated parties, and banking people, market middlemen and so on.*

**Keywords:** Bangladesh, E-commerce, internet, enterprise, application, B2C, Government Achievements

## I. INTRODUCTION

In the present world internet is one of the most important thing in both internet process and globalization and it have the prospective to provide a lot of advantages to the organizational and individual in the emerging technology [1] [2]. E-commerce and internet are very closely wrapped to emerging countries however they can achieve fabulous advantage to emerging countries like Bangladesh in term of ideal business purpose [3]. Basically, Ecommerce is a defined as business practice revolution process and the potential economic process is work based on the business sector [4]. In the business sector the ecommerce one of the essential process in term of online marketing and it turn to save the transportation cost of the consumer, give an opportunity for checking the product prices, visiting a freedom marketplace, minimizing the product cost, eliminating market middlemen and as well as saving time [5] [11].

Bangladesh's annual growth is above Gross domestic product (GDP) 6%. The Bangladesh population size is above 154.41 million which including 42.766 million web users. The ecommerce growth is basically dealings in global trade which are carried over the online process. India, China, and Japan are most important e-commerce based economies in Pacific and Asian regions, with yearly average e-commerce rate of growing with 143% last six years. Significantly the Bangladesh is still growing in online business.

The main aim of this study is

To measure the perception of Bangladeshi online e-commerce customer to the Major B2C e-commerce site performance based on the belief of online customers is done based on the questioner process.

Additionally, identify the fundamental attributes of B2C e-commerce site those are typically significant to the Bangladesh e-commerce customer based on their perception.

Thus, in this paper, reviews the Bangladesh e-commerce process in term of online trading and additionally provides challenges of E-commerce and it's solution in Bangladesh and this process leads to various kinds of facilities to promote the Bangladesh to adopt the different kind of new technologies in different kinds of sectors. The empirical analysis is done by surveying important questionnaires from the different kinds of e-commerce user, provider and their associated parties, and banking people, market middlemen and so on.

## II. LITERATURE REVIEW

In [6] authors explain about the temporal E-commerce evolution in a developed country as well as evaluate the contribution of the potential market process with internet user and other determinant factors. This validation process is used as Spanish market over seven year's process. Likewise author verifies the design value proposition supposed as “secure broadband technology diffusion, the definition of a legal framework of consumer protection and broadband technology diffusion also influence the development of e-commerce. Additionally, author contributes in this

process is differentiation strategies to the e-commerce development to the harm of those price leadership. End of this work an indicator of access barriers are presented.

In [7] authors present the empirical analysis of the logistic performance evaluation of Zhengzhou airport, china. Before that in this work has been presented about the rapid growth of e-commerce and B2C logistic service. At the same time consider about a new growth point of airport logistics development and construction, China's logistics transportation development. The experimental results present that the five key factors such as information, service flexibility, economy, time and reliability which are influence the better logistics performance.

In [8] author test the influence factors of third party e-commerce platform and additionally analysis the main factors such as technical factor, enterprise internal factors and enterprise external factor and additionally use the technical and policy advice. In this work mainly consider about the social information process, and third party e-commerce platform. At the same time, competitive advantage of the third party e-commerce platform, the huge number of similar enterprises and the information sharing ability also present in this work.

In [9] author presents a methodology for detecting algorithmic pricing and it utilize in empirical analysis for prevent the behavior on Amazon Marketplace. In this work collect four month of data which is covering different kind of selling merchants near 1,641 as well as seller products, utilizing the dataset the algorithmic pricing strategies espoused by over 500 sellers. This work also explores the different kinds of seller characteristics and impacts these characterizations with different strategies on dynamic marketplace.

In [10] author found out a resistance to E-Commerce adopting among Indian consumers. In this study try to analysis the relationship between demographic and their influencing variable on the Ecommerce adopted by the Indian consumers.

Additionally, in this work try to analysis the different kinds of factors which can affect the Ecommerce adoption by the Indian consumers and it can be develop a framework for presenting the E-commerce adoption, this process is work based on a strategic perspective.

### III. METHODOLOGY OF STUDY

To recognize the major e-commerce site principal attributes in term of Bangladeshi e-commerce consumer, here conducted a surveying important questionnaires from the different kinds of e-commerce user, provider and their associated parties, and banking people, market middlemen and so on. Totally, 300 consumers and here consider the cut off line of 50% and 10 factors were selected to measure the customer's perception. 10 different Hypotheses questions are used for questionnaire process is presented in Table 1 and Research Methodology is shown in figure 1.

**Table 1. Hypotheses Questions**

<b>Hypotheses</b>
<b>H1:</b> There is a positive relationship between E-commerce website adoption and product guarantee
<b>H2:</b> There is a negative relationship between E-commerce website adoption and consumer resources
<b>H3:</b> Subjective Norms affect decisions of consumers to adopt E-commerce website
<b>H4:</b> There is a positive relationship between E-commerce website adoption and product variety
<b>H5:</b> There is a positive relationship between E-commerce website adoption and low prices charged by online retailers
<b>H6:</b> There is a positive relationship between E-commerce website adoption and convenience
<b>H7:</b> There is a negative relationship between E-commerce website adoption and poor service quality.
<b>H8:</b> There is a negative relationship between E-commerce website adoption and perceived risk
<b>H9:</b> There is a positive relationship between well designed E-commerce website factors and E-commerce website adoption.
<b>H10:</b> Female consumers are more likely to adopt online shopping than male consumers.

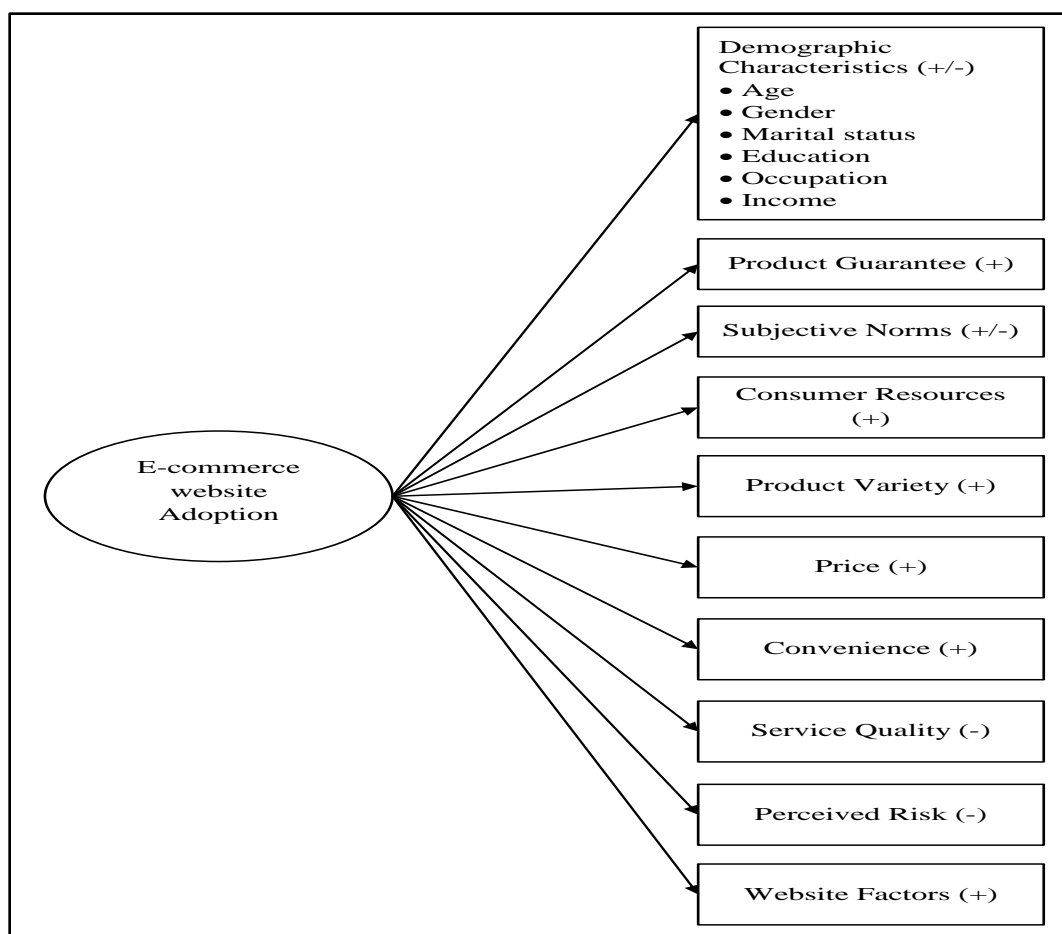


Figure 1. Research Methodology

#### A. Data Analysis

To examine the collected questionnaires data is done by using statistical tool. According to the statistical analysis, the data treated as two different factors such as *evaluation (ei)* and *belief (bi)* which means perception of customers about the E-commerce site performance on particular attribute and important perception of their attribute. To identify the important of data based on the *belief (bi)* of consumer which is comparing the each and every hypothesis using Z test at significance level of 5%. To examine the respondent demographic data use the cumulative percentage. All these work process and extract the needed statistical values with the help of abovementioned methodology SPSS 16.0 is used.

#### IV. EMPIRICAL ANALYSIS

In this section present the empirical analysis of Bangladesh e-commerce process in term of online trading. From the demographic data is extracted that the E-commerce website are habitually preferred by young

aged people and who are educated and they are staying in Bangladesh.

In Bangladesh countless e-commerce websites are used some of E-commerce websites are shown in table 2.

Table.2. List of E-commerce Websites in Bangladesh

E-commerce websites	Frequency
OLX.com	25.5 %
Ekhanei.com	21.5 %
Rokomari.com	18.5 %
Bikroy.com	12 %
Akhoni.com	8 %
AjkerDeal.com	18 %
ClickBD.com	6 %

According to the different kinds of reply of the respondents using questionnaires, depends on the response most of the users (25.5%) visits OLX.com, second most is (21.5 %) visits Ekhanei.com, and thirdly (18.5 %) Rokomari.com

Most of the Bangladesh consumer visit E-commerce sites by clicking the advertisement or link in other

websites; especially the advertisement on Face book is shown in Figure 2.

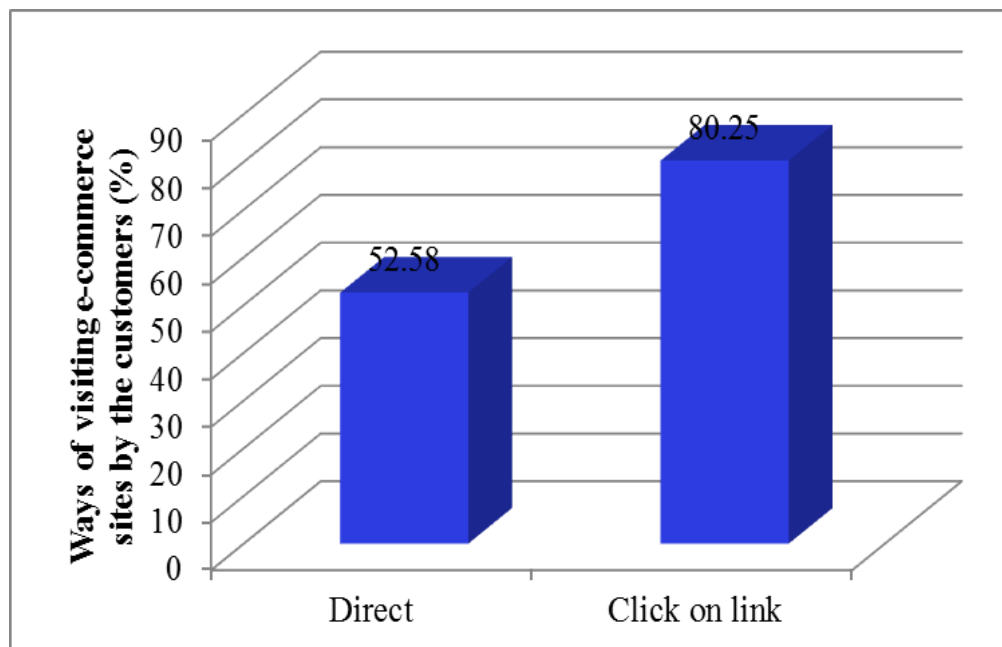


Figure 2 Way of Visiting by Consumers

One of the biggest fears of using e-commerce website is payment process and it must be secure. And the Cash on Delivery system has become preferred mostly by the consumer. Other than this, payment by debit card and credit cards are preferred by the professionals and office going customers.

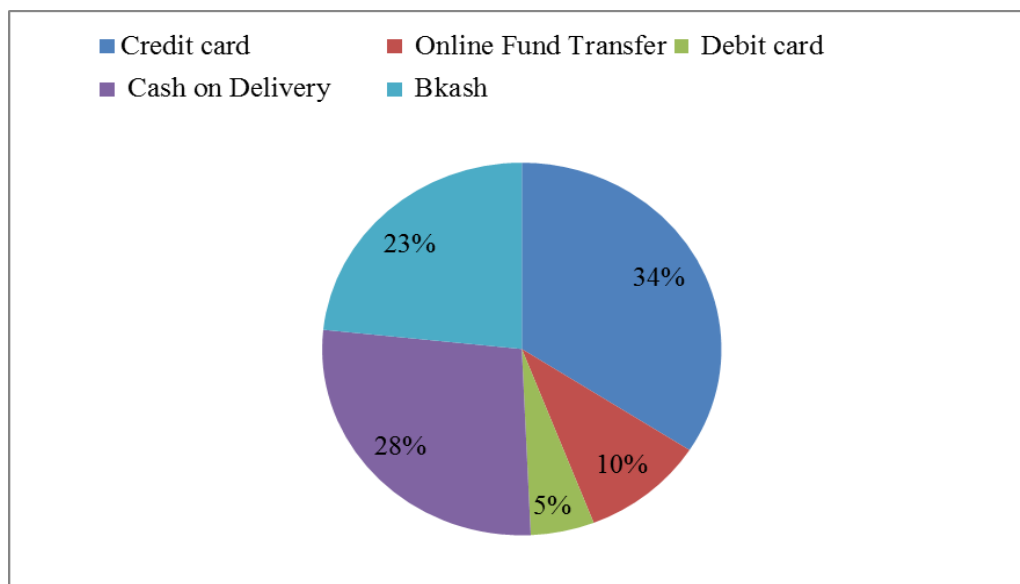


Figure 3. Payment Process

Summary results of Hypothesis 1 to 10 are shown in Table 3, \*\*\* is defined as statistically significant at the 0.01 and \*\* is defined as statistically significant at the

0.05, Ranking with Marginal Effect in term of using E-commerce Websites is shown in Table 4.

**Table 3. Marginal Effects of Consumers Using E-commerce Websites in Bangladesh**

Factors	Mean	Standard Deviation	Significance
Self-employee	2.23474	0.85432	0.0066***
Company Employee and Manager and Sales/service	1.37479	0.56341	0.0162**
Professional	1.46143	0.73671	0.0517**
High Education	2.77314	0.74862	0.0006***
Single	1.87366	0.63016	0.0047***
Middle Age	1.53592	0.80727	0.0230**
Young Age	2.06643	0.85240	0.0157**
Gender	- 1.08510	0.50516	0.0273**
Consumer Resources	1.58314	0.31823	0.0000***
Subjective Norms	- 0.91260	0.26012	0.0001***
Product Variety	0.76734	0.28732	0.0041***
Convenience	0.61303	0.25013	0.0187**
Service Quality	- 1.02165	0.27459	0.0003***
Risk	- 2.41415	0.35027	0.0000***
Website Factors	0.66289	0.25312	0.0418**

**Table 4. Ranking with Marginal Effect**

Factors	Marginal Effect	Rank
Website Factors	0.12755	14
Convenience	0.12765	13
Product Variety	0.14212	12
Subjective Norms	-0.16767	11
Service Quality	-0.20438	10
Gender	-0.21625	9
Manager and Company Employee and Sales/service	0.21243	8
Self-employee	0.23111	7
Single	0.26187	6
Consumer Resources	0.27353	5
Middle Age	0.30713	4
Young Age	0.34210	3
Risk	0.36814	2
High Education	0.3874	1

## V. CONCLUSION

In this work, reviews the Bangladesh e-commerce process in term of online trading and this process leads to various kinds of facilities to promote

the Bangladesh to adopt the different kind of new technologies in different kinds of sectors. The empirical analysis is done by surveying important questionnaires from the different kinds of e-commerce user, provider and their associated parties, and banking people, market middlemen and so on. Mainly in this work find the perception of Bangladeshi online e-commerce customer using B2C e-commerce site performance based online user. Also find the fundamental attributes different kinds of website using Bangladesh and their perception. Finally, the empirical analysis shows that the different experimental analysis and their results provide how the Bangladesh consumers use their online process which directs to improve the future development of E-commerce online process in Bangladesh.

## REFERENCES

- [1] Lee, & Lin, H. F., "Customer perceptions of e-service quality in onlineshopping", International Journal of Retail & Distribution Management, No.33, No.2, PP.161-176, 2005.
- [2] Marilyn, M. H., & Donna, T. M., "Assessing poor quality service: perceptions of customer service representatives", Managing Service Quality, Vol.18, No.6, PP.610,2008
- [3] Tan, F. B., Yan, L., & Urquhart, C., "The effect of cultural differences on attitude, peer influence, external influence, and self-efficacy in actual online shopping behavior", Journal of Information Science and Technology, No.4, No.1, 2007.
- [4] Urban, T. L., "Establishing delivery guarantee policies", European Journal of Operational Research, Vol.196, No.3, PP. 959-967,2009.
- [5] Momtaz, Hasinaet, AminulIslam, KuHalim Ku Ariffin, AnayetKarim "Customers Satisfaction on Online Shopping in Malaysia", International Journal of Business and Management, Vol.6, No.10, PP.163-164,2011.
- [6] Inma Rodríguez-Ardura, Antoni Meseguer-Artola, Jordi Vilaseca-Requena, "Factors Influencing the Evolution of Electronic Commerce: An Empirical Analysis in a Developed Market Economy", Journal of Theoretical and Applied Electronic Commerce Research, Vol.3, Issue 2, PP.18-29, 2008.
- [7] Lei Wang, "Research on the Impact of E-commerce to Logistics Economy: An Empirical Analysis based on Zhengzhou Airport Logistics", International Journal of Security and Its Applications, Vol.9, No.10, PP.275-286, 2015.
- [8] Xiong Hu, "Research on the Impact of B2C E-commerce and Third Party Platform: An Empirical Analysis based on Factor Analysis", International Journal of Smart Home, Vol. 10, No. 3, PP.315-324,2016.
- [9] Le Chen, Alan Mislove, Christo Wilson, "An Empirical Analysis of Algorithmic Pricing on Amazon Marketplace", International World Wide Web Conference Committee (IW3C2), Montréal, Québec, Canada, PP.1339-1349, 2016.
- [10] Partha Sarathi Pattnayak, Vidya Mohanty, "E-Commerce & Indian Consumers: An Empirical Analysis" International Journal of Advance Research in science and Engineering, Vol.4, Issue.11, 2015.
- [11] Sophia Segal, "A Framework for Removing Ambiguity from Software requirements", IIOAB Journal, Vol. 8, issue (suppl) 3, 2017, PP. 43-46.