

ONLINE SHOPPING IN BANGLADESH: PRESENT SCENARIO AND PROSPECT



**A THESIS SUBMITTED TO THE DEPARTMENT OF MARKETING
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OF PHILOSOPHY**

**BY
TASMINA NAHID
M.Phil FELLOW
DEPARTMENT OF MARKETING
UNIVERSITY OF DHAKA
ROLL NO: 253
SESSION: 2011-2012**

**UNDER THE SUPERVISION
OF
MD. ZAKIR HOSSAIN BHUIYAN Ph.D
PROFESSOR
DEPARTMENT OF MARKETING
UNIVERSITY OF DHAKA**

**FACULTY OF BUSINESS STUDIES
UNIVERSITY OF DHAKA
BANGLADESH**

DECLARATION

I do hereby declare that the thesis entitled “Online Shopping In Bangladesh: Present Scenario And Prospect” submitted to the department of marketing, university of Dhaka, Bangladesh, for the degree of Master of Philosophy (M.Phil) in Marketing is an original and independent research work. No part of this thesis has been submitted any other university/institution for any other degree or diploma.

Tasmina Nahid
The Author
Roll no: 253
Session: 2011-2012
Department of Marketing
University of Dhaka
Bangladesh

Date:

CERTIFICATE

I do hereby certify that the thesis entitled “Online Shopping In Bangladesh: Present Scenario And Prospect” submitted by Tasmina Nahid, Roll no: 253, Session: 2011-2012, a research fellow of the Department of Marketing, University of Dhaka, Bangladesh, for the degree of Master of Philosophy (M.Phil) in Marketing has been done under my supervision and guidance. I recommend its submission for examination.

SUPERVISOR

Md. Zakir Hossain Bhuiyan Ph.D
Professor
Department of Marketing
University of Dhaka

Date:

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Tasmina Nahid
Reg no: 253
Session: 2011-2012
Department of Marketing
University of Dhaka

Date:

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ABSTRACT

The limitations in shopping at brick and mortar retail stores forces consumer to look for alternative ways to get what they need in a convenient, safe, affordable, and time saving manner. Online shopping seems to be one of the most convenient ways to compare products and services. It is the process or system that provides a secured environment for browsing, comparing and selecting from a wide variety of products and services using the Internet. The merchants provide both products and services through the online by themselves in a safe environment. This type of marketing creates growth for expanding the local products and services in Bangladesh, encourages new entrepreneurs and gives customers an opportunity to choose products from all over the world. At present online shopping system is becoming an inherent part of many people's daily life in Bangladesh. So to have a clear idea about the present status of online shopping system in the perspective of Bangladesh, it is an urgent need to take depth research in the area. This will lead to the identification of the actions to be suggested and thereby highlighting the prospects of this system as a whole.

The study is descriptive and analytical in nature. For gathering primary data the survey method and a structured questionnaire have been used. Sample consists of one hundred respondents. Simple random sampling method is used in this study. The number of questions is 15. The questionnaire includes 9-point Likert scale ranging from 1 (Extremely Disagree) to 9 (Extremely Agree). To analyze collected data from respondents, three methods have been used such as multiple regression analysis, factor analysis and cluster analysis. The multiple regression analysis of the survey data reveals the demand and growth of online shopping has value 2.661. It means that online shopping system has good demand and growth. Two factors are found by factor analysis. Those two factors labeled as "personal factors" and

“online shop related factors”. On the other hand, two clusters have been found by cluster analysis. Each cluster is described on the basis of the centroids by assigning it a name or label. First cluster or group is labeled as “prosperous” and fit in to upper class citizen. The second cluster is labeled as “economical” as the respondents of this group want to cost less for quality products and services.

Bangladesh has slow pace of development in telecommunication and Internet technologies. Except the major cities, the benefits of these technology advancements are not dispersed in the same way all over the country. Internet access is limited to specific regions and specific segments of the society. In spite of all these conditions, online shopping in Bangladesh is becoming more popular day by day. Because of proliferated use of handheld and wearable devices at present the reach of Internet seems rapid. In future it may not be quite impossible that the traditional shopping system would be less popular than online shopping.

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Online Shopping in Bangladesh: Present Scenario and Prospect

1.0 Introduction

In the last decade, there has been a remarkable change in the way consumers have altered their technique of shopping. Now apart from the old traditional methods buying and selling can be done with the help of modern technology-based methods such as online shopping. Online shopping is a process whereby customers directly buy goods or services from a seller in real time, without an intermediary service, over the Internet (Trees and Stewart, 2000). It refers to the shopping behavior of consumer in an online store or a website used for online purchasing purpose (Monsuwe, et al., 2004). It is the process of conducting buying and selling activities of goods and services from merchants through using the modern technical devices such as Internet, mobile, credit and debit cards, etc. It is a form of electronic commerce which allows consumers all over the world to directly buy goods or services from a seller over the Internet using a web browser. Alternative names of online shopping are e-web-store, e-shop, e-store, Internet shop, web-shop, web-store, online store, and virtual store. People can buy and sell anything from anywhere in this world through online shopping sites. This type of shopping started in the early days of the Internet only allowing simple B2B transaction. It is now a very common shopping system in the developed countries and one of the most widely used words in the business world. Although consumers continue to purchase from a physical store, they feel very convenient to shop online since it frees them from personally visiting the store. Online shopping helps the consumers to find out sellers all over the world, learn about their offers, initiate purchase, and give feedback. This shopping system makes it easier to communicate with companies. Many companies have started using online shopping system with the intention of cutting marketing costs, thereby reducing the price of their products and services to stay forward in extremely competitive markets. Companies use this system to exchange, communicate, and publicize information to

sell the product, to take feedback, and also to carry out satisfaction surveys with the customers. The popularity of online shopping has been greater than before due to the easy access of web and explosion of technology among customers of new generations. According to the Internetlivestats.com, 40.4% of the overall population of this world is using Internet till July, 2014. In 2013, the percentage was 37.9% [43]. So, it has been clear that the number of Internet users is increasing day by day.

The Internet users are the ultimate target customers for the online shops. As a developing country, Bangladesh has not been left behind in the Internet use. According to the Bangladesh Telecommunication Regulatory Commission (BTRC), the Internet users in Bangladesh are 40832.387 thousand subscribers in August, 2014 [44]. Unquestionably Bangladesh has a massive target customer for online business. Whenever a great number of target customers are available, the potential business starts to emerge. That is how the emergence of e-commerce was visible in the early 2000. In the beginning of the online shopping in Bangladesh, payment issue was a big hindrance for the consumers to shop online. The only convincing and dependable choice was Cash-on-delivery option. In December, 2012, Bangladesh Bank launched National Payment Switch Bangladesh (NPSB) which brought every bank into a common platform for payment systems [45]. Now the consumers who are shopping online or getting involved in any kind of online transaction can use their debit or credit card. At present the online transaction situation has been improved in Bangladesh. Online shopping would get more attention in Bangladesh from customers because purchasing from Internet gives many benefits to customers such as shopping from their place, reduction of cost of transportation, wide variety of choices, and so on (Masoom, et al., 2013). Various categories of products such as grocery and vegetables, fish and meat, bakery and sweets, gifts, cloths, etc, are available to buy from a business to consumer website called online store. Most of the products have been introduced with brand names. Currently more than one hundred websites are running business to sell products online and organize home delivery in Dhaka city and some selected district headquarters in Bangladesh. There is no possibility that the expansion of online shopping will drop off.

2.0 Literature Review

Online shopping is a way of shopping where the buyer can order a product or service by using Internet. (Suhan., 2015). Online shopping is also called E-commerce. It means running the whole process of business electronically using the Internet (Chaffey, et al., 2006). It was invented in the UK by Michael Aldrich in 1979. (Mohiuddin., 2014).

In order to shop online the consumer must be relatively familiar with computer and how to navigate the Internet. (kim and Ammeter, 2008). It is a process where customers go through when they decide to purchase via the Internet. In order to ensure the achievement of e-commerce, it is significant to establish customer needs and wants (Chaffey, et al., 2006). It has developed to a multibillion dollar business today. Today's consumers are finding it easier to communicate with companies through Internet. Consumers can search out sellers on the web, learn about their offers, initiate purchases, and give feedback (Kotler and Armstrong, 2011). Online shopping made the world a global village, without any limitation of boundary. This shopping system benefitted the sellers by reducing the cost of physical display, sales representatives, etc., and simplified the comparison process of consumers (Maverick Williams, 2011). Jeffrey F. Rayport (2001) showed how the companies with PC-based information system can manage their business process. Bob Norton and Cathy Smith (2004) Highlighted several reasons of rapid increasing trends of web buying and selling. Kenneth C. Laudon (2004) focused how consumers take online purchasing decision. He also showed that the online purchase decision is different from offline purchase decision. Ferdousi (2003) has explored the e-commerce situation in Bangladesh, identified the problems, and provided some suggestions to overcome the problem. Islam and Alam (2006) identified some critical success factors that affect consumers' attitude toward M-commerce. Ishtiaque (2004) showed the status of E-commerce industries in Bangladesh and provided some recommendations to implement technology oriented facilities in the e-commerce sector of Bangladesh. Morshed

(2005) presented a conceptual framework for transferring M-marketing application in the context of Bangladesh.

Different influential factors have significant effect on online shopping (Shergill and Chen, 2005). Web site design of a web page is one of the most important factors that influence online shopping (Imrana and Humaira, 2010). The research by Shergill and Chen (2005) in their empirical study identified four factors, i.e., website design, reliability, customer service, and security/privacy for online shopping.

Young are the main buyers who buy products through online (Imrana and Humaira, 2010). Dholakia and Uusitalo (2002) examined the relationship between age and Internet shopping and found that the younger consumers are more inclined to the online shopping. They search for more products online, and they were more likely to agree that online shopping is more convenient.

Little study has been done in Bangladesh on the topic of online shopping. Suhan (2015) investigated the acceptance of online shopping in Bangladesh from consumer's perspective and offered the present scenarios and behaviors among the Internet users of Bangladesh. Chowdhury and Hossain (2013) proposed a model derived from Technology Acceptance Model (TAM) to explain consumer acceptance of e-shopping in Bangladesh. Islam et al., (2012) investigated how customers can judge the trust carrying attributes when shopping from particular online shopping website. They have found credibility and look unique affect online shoppers' perception of trust in online shopping system. Howlader et al., (2012) showed that online purchase intention and its continuity depend on the attitude of the customer that is ultimately influenced by trust or belief on online shopping, subjective norms that depend on social and media role, control variables, and some support facilities. Imrana and Humaira (2010) detected the underlying causes of online purchasing and evaluated consumers' satisfaction and dissatisfaction level considering their positive or negative experiences on online purchase. Kamrul, et al., (2010) shows the relationship between online marketing exercise and the area of business operation (international vs. domestic) and provided an idea why marketers use Internet in the country. They concluded with the

prime exercise of online marketing which is centralizing mostly for leveraging international business operations in Bangladesh. Karim (2013) tried to understand customer satisfaction in online shopping and investigated the major reasons that motivate customers' decision-making processes as well as inhibitions of online shopping. Kabirul (2012) examined important features of a number of goods and service providing electronic commerce websites (business to consumer category) in Bangladesh. The prices of a range of products of online and those of traditional stores in Dhaka city were also compared. Suhan (2015) explored the acceptance of online shopping in Bangladesh from consumer's perspective and presented scenarios and behaviors among the Internet users of Bangladesh.

3.0. Objectives of the Research

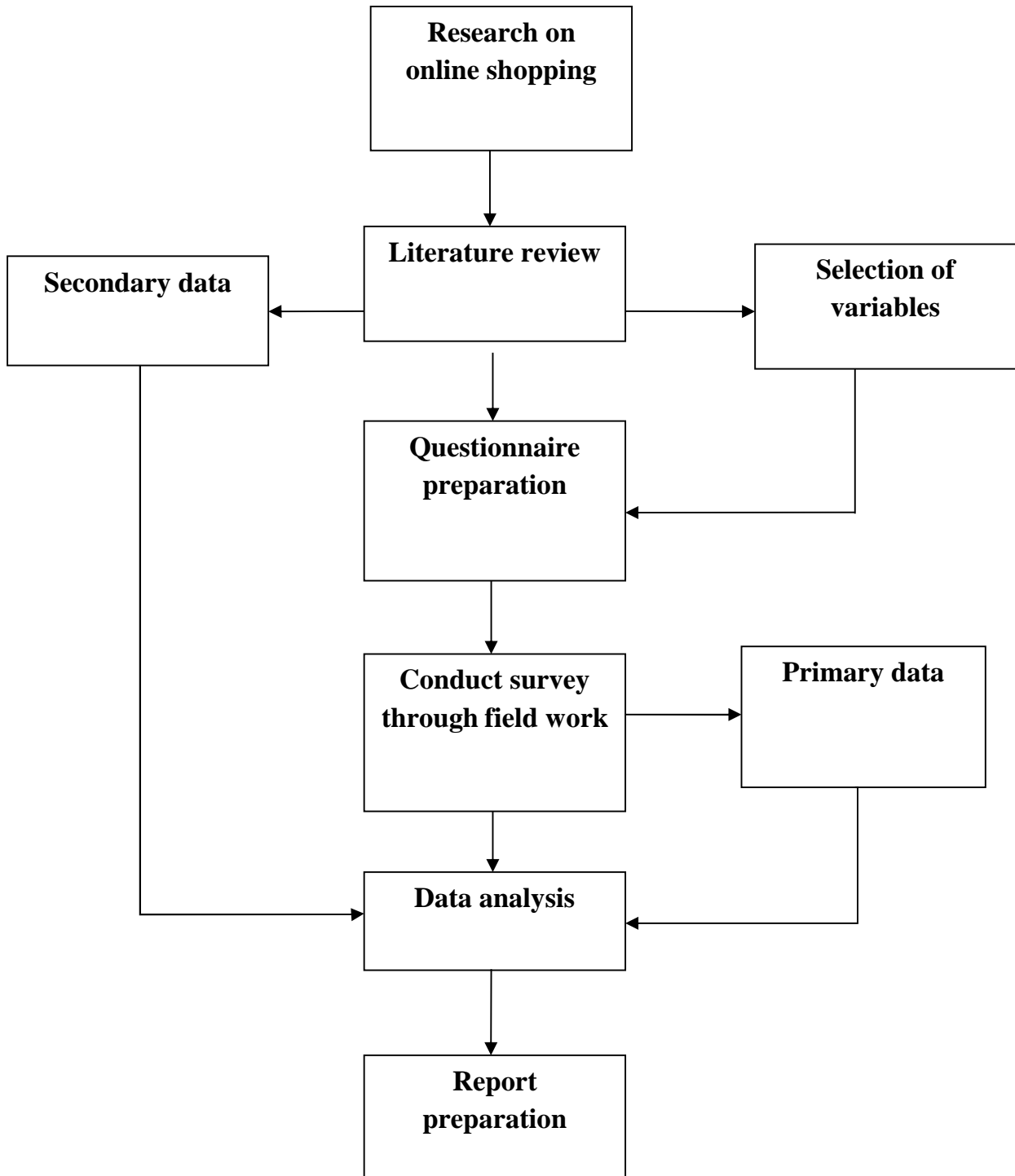
The research objectives are-

1. to know the emergence of online shopping,
2. to know how online shopping works,
3. to investigate the prospects of online shopping system in Bangladesh,
4. to find out the drawbacks of this system and suggest in measures for bringing efficiencies in the context of Bangladesh, and
5. to assess demand, growth, and users' position of Internet and online shopping.

4.0 Model Development

4.1 Research Framework

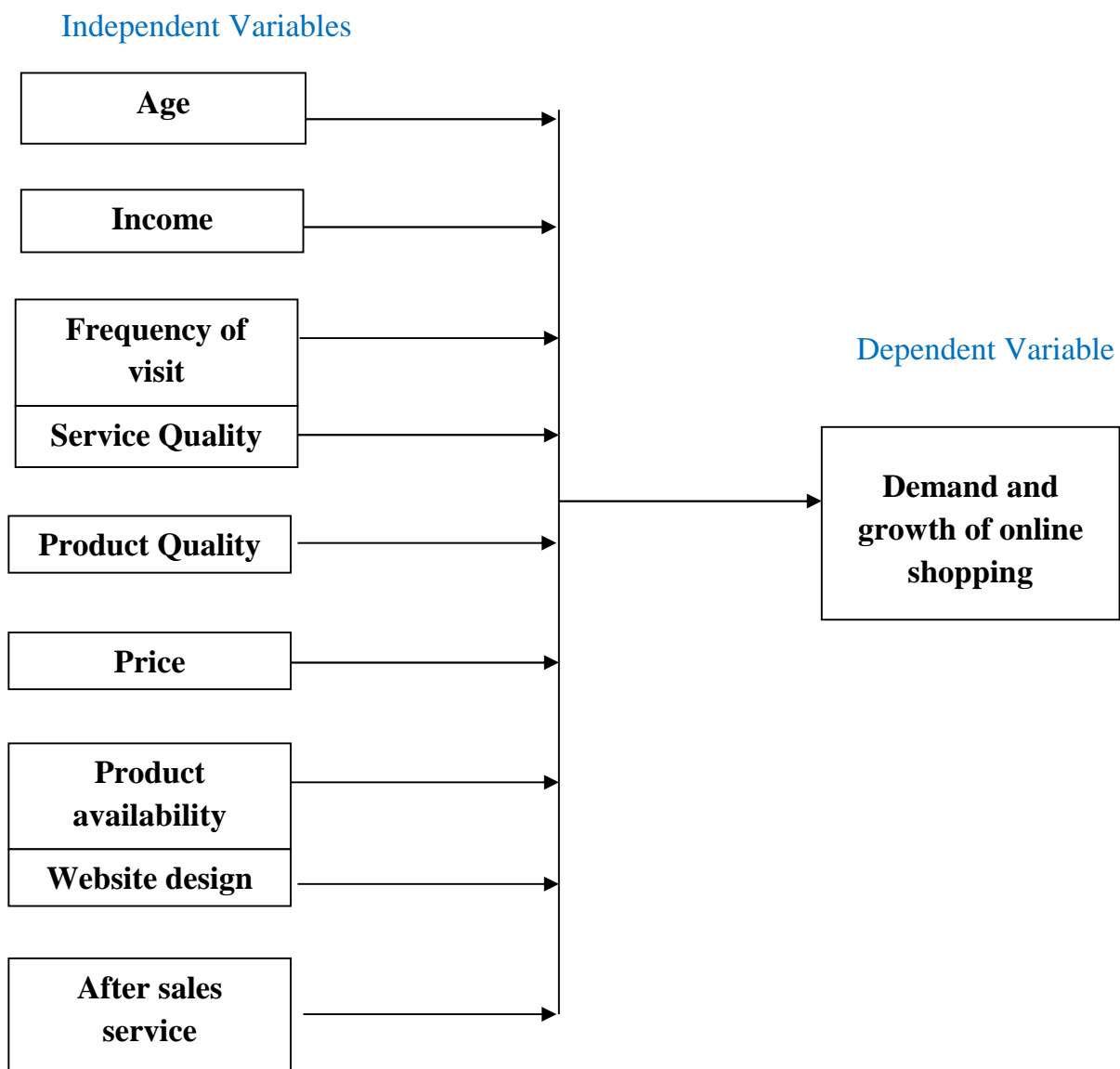
Figure 1: Research Framework



4.2 Conceptual Model

The demand and growth of online shopping system depend on customers' age, income, frequency of visit, product quality, service quality, price, service availability, design of website, after sales service, and so on.

Figure 2: Conceptual Model



4.3 Analytical Model

The principal analytical tool is linear regression model which is commonly known as the multiple regression model. The model is-

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + e$$

Y = Demand and growth of online shopping

β_0 = Constant (intercept of the variable)

β_1 = Coefficient of age

X₁ = Importance of age

β_2 = Coefficient of income

X₂ = Importance of income

β_3 = Coefficient of frequency of visit

X₃ = Importance of frequency of visit

β_4 = Coefficient of service quality

X₄ = Importance of service quality

β_5 = Coefficient of product quality

X₅ = Importance of product quality

β_6 = Coefficient of price

X₆ = Importance of price

β_7 = Coefficient of service availability

X₇ = Importance of service availability

β_8 = Coefficient of website design

X₈ = Importance of website design

β_9 = Coefficient of after sales service

X_9 = Importance of after sales service

e = Error

The above model is estimated based on the model given below-

$$= a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9$$

5.0 Research Design/Methodology

The components of research design are described briefly as below:

5.1 Nature of the Study

The nature of the research is basically descriptive research. Descriptive study requires direct interview and massive exploration of secondary sources. According to Naresh K. Malhotra (2010), descriptive research is usually a type of conclusive research, which has its major objective of describing something. Theoretical part of the research has significantly used secondary sources such as review of journals and reading materials, while the quantitative findings and interpretations depended on primary data. A survey has been conducted, where information obtained from the sample only once. Thus, the study can be termed as descriptive and analytical.

5.2 Study Area

Currently nonresident affluent Bangladeshi people, rich resident consumers', professionals who regularly use Internet, educated people, and students are the main customers of online shopping in Bangladesh. As it is descriptive in nature, different areas of the Dhaka city have been identified for convenience.

5.3 Instrument

To collect data from the respondents, a structured questionnaire has been used. The questions are easy to understand. The number of questions is 15. Average interviewing time was around 10 minutes.

5.4 Sample Size

To highlight the true overall scenario, sample sizes of 100 respondents are chosen for the survey. Both male and female respondents are included in this study. The young are the main buyers who buy products through online. The younger consumers searched

for more products online, and they are more likely to agree that online shopping is more convenient (Imrana and Humaira, 2010). That is why younger age group of Dhaka city has been considered. A single cross sectional study has been chosen. While selecting the respondents' knowledge, awareness, and experience in relation to online shopping have been emphasized.

5.5 Data Collection

Both secondary and primary data have been collected for conducting the research. For the proposed research secondary data have been collected from Internet, texts, journals, news papers and research papers from home and abroad. Primary data has been collected from different consumers surrounding Dhaka city.

5.6 Measurement and Scaling

The questionnaire for the respondents uses 9-point Likert scale ranging from 1 (Extremely Disagree) to 9 (Extremely Agree) to obtain their opinion. The main reason for using Likert scale is that it is relatively easy to understand and construct. Nominal scale is used to know the occupation of the respondents.

6.0 Data Analysis Planning

To analyze the collected data from the respondents, mainly three methods have been followed. They are multiple regression analysis, factor analysis, and cluster analysis. These analysis models have used to determine the relationship of demand and growth of online shopping with other variables like age, income, frequency of visit, product quality, service quality, design of website, price, availability of service, and Internet access.

6.1 Regression Analysis

Multiple linear regression is an extension of the linear regression, where more than two variables are involved. Multiple regression analysis technique develops mathematical relationship between one dependent variable and two or more independent variables.

6.2 Factor Analysis

Factor analysis is a class of procedures primarily used for data reduction and summarization. Relationships among a sets of many interrelated variables are examined and represented in terms of a few underlying factors. Factor analysis is done by independent variables.

6.3 Cluster Analysis

Cluster analysis is a class of techniques used to classify objects or cases in relatively homogeneous groups called clusters. Cluster analysis is used to identify homogeneous customer groups to segment the market based on customers' attitudes and behavior.

Statistical software SPSS is used to process the collected data.

7.0 Findings

7.1 The emergence of online shopping

English entrepreneur Michael Aldrich invented online shopping in 1979. His system connected a modified domestic TV to a real-time transaction processing computer via a domestic telephone line [46]. Tim Berners-Lee created the first World Wide Web server and browser in 1990. It was opened for commercial use in 1991 (M. Aldrich, 2011). In 1994 Pizza Hut opened an online pizza shop, Netscape's SSL v2 encryption standard for securing data transfer and Intershop's first online shopping system. Amazon.com launched its online shopping site in 1995, and eBay was also introduced in 1995. [46]. In 1998 Paypal starts the first mode of paying online. Yahoo and Zappos.com, the first only online store was launched. In 1999 onwards sudden increase is created with google.com and social networking sites like face book, twitter, etc.

7.2 How online shopping system works

Online shopping is performed through Internet and is limited to Internet users only. This system is very easy to use. Sites usually have comprehensive information about a product like pictures, prices, and descriptions. Some sites give more details than traditional shops. When consumers decide to buy a product, they can visit different websites to compare products. After comparing the price, quality, and other related information, they choose an item by clicking and adding it to a cart. After reviewing the cart they proceed to check out with desired delivery address and a payment option. Most online shops require the consumers to register before a purchase is made, and they may also require the consumers to be the members of their site before any transaction is processed. Persons without credit or debit cards can also pay their bills via online banking system. The subsequent chart shows how online shopping system works.

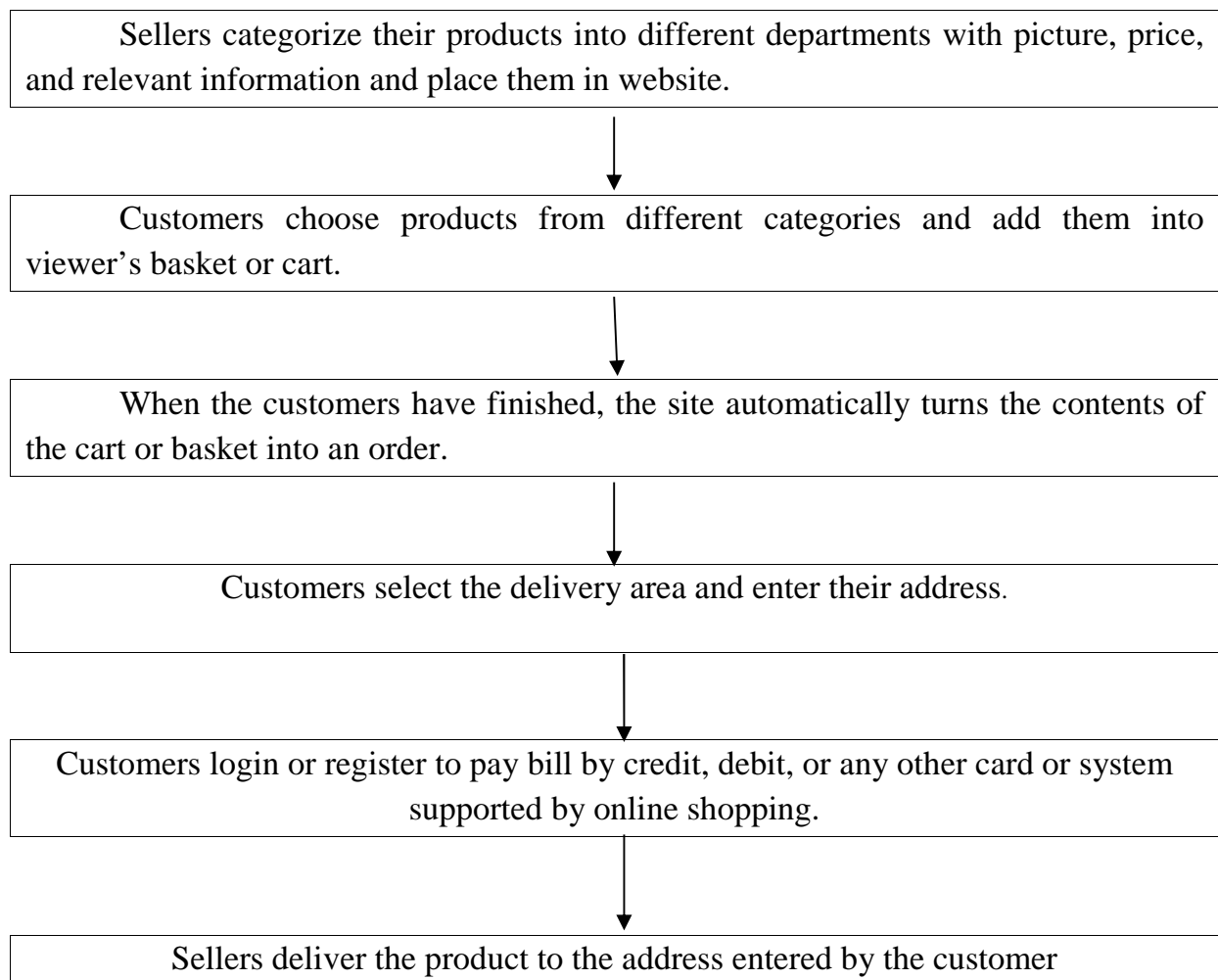


Chart 1: Steps of online shopping system

7.3 Present Internet and online shopping condition in Bangladesh

Online shopping is largely dependent on the Internet and the access, pricing, and the quality of Internet services, and Internet services are significantly dependent on the status and performance of the telecommunications sector (Mohiuddin, 2014). In the last few years the rates of penetration and Internet user in Bangladesh have increased significantly. If Internet is used such great numbers, obviously online shopping is not far behind. The following table shows the population, Internet usages, rate of penetration, and per capita GDP in US dollars in Bangladesh.

Table: 1 Population, Internet Usages, Rate of Penetration, And Per Capita GDP in US Dollars in Bangladesh

Year	Population	Users	% of Penetration	GDP
2007	137,493,990	450,000	0.3 %	US\$ 466
2009	156,050,883	556,000	0.4 %	US\$ 574
2010	158,065,841	617,300	0.4 %	US\$ 624
2011	158,570,535	5,501,609	3.5 %	US\$ 700
2012	161,083,804	8,054,190	5.0 %	US\$ 700
2015	168,957,745	53,941,000	31.9 %	US\$ 1,080

Source: ITU and International Monetary Fund

Compared to other countries of the world, online shopping came at a later stage in Bangladesh, but it grew very quickly. From May 22, 2006 Bangladesh is connected with the submarine cable (Parvin, et al., 2007). But the long awaited connectivity with international submarine cable has done little to improve the quality of Internet services in the city forcing the city dwellers to depend on primitive and slow modem connections (Parvin, et al., 2007). Though Internet in Bangladesh has grown rapidly in the last few years, still the access to the Internet is very limited for several system reasons, poor electricity network, affordability of computer, and Internet use and knowledge about the Internet (Parvin, et al., 2007). In the context of Internet availability and infrastructure, Bangladesh was ranked 73 in the world (Kirkman, et al., 2002). Meanwhile, Bangladesh is progressing in developing the Internet and information communication technology. Bangladesh already has trained IT professionals, and the number of IT users in this country is increasing rapidly. (Laisuzzaman, et al., 2010).

In recent times Bangladesh government has approved 3G technology in Internet. It has created a new era in the field of online shopping. Bangladesh government is strong-

mindful to make digital Bangladesh where every person will use Internet for their everyday work. Now this reflection of the Bangladesh government will facilitate the online marketer a lot to increase their business. Recently lots of online shopping websites have been developed in Bangladesh. Online commerce is also increasing step by step. The size of the domestic market has been estimated to be more than Tk. 300 core in a year (BASIS, 2007). In just three years, more than 2000 online trading platforms have made its way to Bangladesh [6]. Including e-ticket sales and sales on facebook the market has yearly transactions around Tk. 10 billion (Lee, 2000). Furthermore, it increases at a tremendous pace with a monthly growth of 20 to 25 percent according to data from BASIS disclosed to financial express, the leading financial newspaper in Bangladesh [6]. Every year 1.5 to 2 million people shop online and the market is growing by 15% to 20%. [47]. One of the most popular online shopping portals Cellbazar originally launched their service in 2006 as ‘Cellbazaar’ with innovative SMS service. They have been operating e-commerce website since 2007. This website has been rebranded as ekhanei.com [48]. Swedish e-commerce company Bikroy.com is doing well in Bangladesh. Since their launch in 2012, Bikroy.com has experienced a significant growth and is today the largest online marketplace in Bangladesh [6]. The subsequent chart comprises online shopping sites operated in our country.

1. aarong.com	60. hotofferbd.com
2. adhunastore.com	61. itbazar24.com
3. amarpc.com	62. itsme.com.bd
4. alohaishoppe.com.bd	63. iferi.com
5. ajkershop.com	64. oo.com.bd
6. apnardeal.com	65. getstyle24.com
7. anondomart.com	66. jamdaniville.com
8. aponbill.com	67. jamdanimela.com
9. aponzone.com	68. kangaroosworld.com
10. apshora.com	69. jemonkhushi.com
11. atpohor.com	70. kanvasbd.com
12. aurthifashion.com	71. karigor.com
13. bajpakhi.com	72. loftybuy.com
14. barirbazar.com	73. LAVELUX.com
15. bdebazaar.com	74. littleangelsbd.com
16. bdbargain.com	75. megabuy.com.bd

17. bdshop.com	76. mohanogor.com
18. betikrom.com	77. monihari.com
19. biznesstrackerbd.com	78. nettoponno.com
20. branoo.com	79. nanarokom.com
21. brandbanglaeshop.com	80. nokshactg.com
22. buymebrand.com.bd	81. officerjonno.com
23. bagdoom.com	82. ojonika.com
24. bdhat.com	83. onnokichhu.com
25. bdhaat.com	84. pepbis.com
26. biponee.com	85. poplin.com.bd
27. bangladeshbrands.com	86. proyjon.com
28. bdcost.com	87. priyoshop.com
29. beautyshopbd.com	88. lerevecraze.com
30. chaldal.com	89. rightchoicebd.com
31. ghoori.com.bd	90. ronginbari.com
32. goponekinun.com	91. rang-bd.com
33. goponjiniah.com	92. rokomari.com
34. change15.com	93. sherpurbazar.com
35. e-jagat.com	94. shopybuzz.com
36. ctgshop.com	95. smartbdshop.com
37. coxsbazareshop.com	96. satkhirashop.com
38. daraz.com.bd	97. shopping24bd.com
39. dhakamela.com	98. stylex5.com
40. diabetesstore.com.bd	99. shapebd.com
41. diamondworldltd.com	100. Daraz.com.bd
42. digimall.com.bd	101. ajkerdeal.co
43. doctorola.com	102. Shoibal.com
44. dinratri.com	103. kaymu.com.bd
45. directfreshbd.com	104. shoppersbd.com
46. ekroybd.com	105. bikroy.com
47. ehatbd.com	106. ekhanei.com
48. emelabd.net	107. clickbd.com
49. esmartfashion.com	
50. esufiana.com	
51. exclusivebd.com	
52. esho.com	
53. fashionfolder.com.bd	
54. fkcraft.com	
55. freshfoodbd.com	
56. fhore.com	
57. fortunabangladesh.com	
58. gd.com.bd	
59. hotofferbd.com	

Chart: 2 Online shopping sites operated in Bangladesh

7.4 Types of online shops operated in Bangladesh

Online websites can be classified into the following six retail models:

-) **Manufacturer sites:** Manufacturer sites are sites where manufacturers directly sell their products to customers via online, skipping wholesalers and retailers, such as Sony. Com, compact.com.
-) **Off-line sites:** Sites where physical stores make their retail products available on the online, such as bestbuy.com, walmart.com.
-) **Catalog hybrid sites:** Sites that put their printed catalog on the online, such as fingerhut.com, columbiahouse.com.
-) **Pure.com:** Sites that buy products from manufacturers at wholesale and sell them online at retail without owning physical and public sorters, such as Amazon.com, etoys.com etc.
-) **Mall sites:** Sites that develop a location on the online and make money by charging retailers fees, such as shopping yahoo.com, mysimon.com.
-) **Brokerage sites:** Brokerage sites unite buyers and sellers on the online and charge a portion of transaction for the service, such as eBay.com.

In Bangladesh mainly three types of online shops that are available:

) **Manufacturer sites:** By using this system manufacturers directly sell their products to customers via online, skipping wholesalers and retailers. For example, “Fresh”, a brand name of consumer goods from Meghna Group of Industries in Bangladesh, offers a complete range of full cream milk products, wheat flour, wheat moida, wheat semolina (suji), refined soyabean oil, vacuum salt, spice powder, mix spice, lentil, natural drinking water, refined sugar, and tea. Recently they have launched their online shop “FRESH Online Store – e-Freshstore.com”.



) **Off-line sites:** Offline retailer sites in which physical stores make their retail products available on the online, such as aarong.com.



- J) **Brokerage sites:** Brokerage sites that unite buyers and sellers on the online. This type of online shopping centre is mainly serving as a media for buyers and sellers. People can buy or sell their used and unused commodities from this center. The transaction procedure is very simple. Sellers post the picture and related information. Buyers choose from the posted products and contact with the setter, bargain with the seller to set a purchase price, and buy it. Such as Bikroy.com, ekhanei.com.



7.5 Payment system of online shopping

At present most of the Bangladeshi online shoppers generally use their debit or credit card to make payments. Cash on delivery (CoD) is also a popular method of paying online bills. However some systems enable users to credit accounts and pay by alternative means, such as bKash, DBBL and BRAC bank banking, mobile banking, pay pal, western union, claque, postal money order.

7.6 Benefits of using online shopping system

Companies can take extra advantages by using online shopping. It helps a company in market segmentation and audience sizing, reduces cost to global reach, quick

adjustments to market conditions, increase demand, decrease of promotion and sales cost, building strong customer relationship, etc. It also helps a company to satisfy its customers by giving customized product and service. On the other hand customers can be beneficial by using online shopping by way of getting their desired products at any time, convenience hassle free purchase, wider choice option, getting more information, etc.

7.7 Prospects of using online shopping system in Bangladesh

When people want to buy from online shops most of them prefer substance over style and function over flash. Therefore, effective online shopping sites should contain useful information; interactive tools that help buyers find and evaluate products of interest, links to other related sites, changing promotional offers, and enjoyable features that lend relevant pleasure. Some common ideas for future prospects to online shopping are the following:

-) The revolution of information in this country is in full swing. Gradually the people of Bangladesh are becoming more interested about new technologies as well as online shopping. The positive attitude toward this system by both the government and private sectors has encouraged the rapid growth of online shopping in Bangladesh.
-) Now Bangladeshi entrepreneurs are more concerned about their business growth. They want to extend their business throughout the world. Online shopping system came to them as an enormous opportunity. Many Bangladeshi companies especially individual designer dress houses, textiles, and garments are in progress to open their online shopping sites. This will result in a huge revenue inflow.

-) Many public and private banks have started to change their traditional old and conservative network infrastructure. BRAC bank is the revolutionary bank that has opened the door of online shopping on behalf of its client on December 10, 2010[49]. Other private banks are also trying to improve the inter-bank and intra-bank connectivity, security of transaction, and the idea of online buying and selling day by day.
-) The government of Bangladesh is playing a major role in the rapid growth of online shopping system. Now Internet service is available in major district headquarters, but BTTB to roll out it up to the 64 district head quarters. Now almost 40 plus districts are getting Internet facilities. All these activities by Bangladeshi government show a huge prospect of online shopping all over the country.
-) Ministry of science and information and communication technology (ICT) and Access to Information (A2I) project of the Prime Minister's office has arranged a digital innovation fair from 6-9 July, 2011 in Dhaka. The website named amar desh amar gram [50] got the national digital innovation award managed by a non government organization, titled development research network (d. Net). This site won this award by giving customers the facilities of shopping over online. [47]

7.8 Problems of online shopping system in Bangladesh

Being a developing country in the third world region there are some substantial problems, which are big hurdles for intensifying online shopping in Bangladesh. The problems explored here are as follows-

-) Many people in Bangladesh, especially in the rural area, are not aware of online shopping system. Even some upper class people are also not aware of it.

-) Our telephone speed is slow. Broadband line is costly for individual user, and the services are not up to the mark till now.
-) A small number of people use credit, debit, and smart card which are very crucial for completing online shopping payment system.
-) Many people have fear of fraudulence of online shopping sites. They have less faith on online shopping site products' quality.
-) Several online shops charge higher prices than brick and mortar shops.
-) Many well known brands and companies do not have any online shopping sites. Therefore, people, who prefer branded products, do not use online shopping system.
-) In our country, people enjoy shopping as an amusement. Therefore, they prefer to visit different shops visually rather than virtually.
-) Online shopping system saves time, but if the customers do not use card system then it takes more time to get a desired product in hand. As a result, many people prefer traditional shopping system over online shopping system.
-) Our power supply is poor and fails frequently.
-) Our people have little affordability of online shopping components such as Internet affordability, computing devices' affordability, and handheld devices affordability. These control its reach up to affluent class of the society.
-) Consumers show a bias behavior toward brands that they know well and have a good experience of in the past. Therefore, the branded products score over the non branded or less popular branded online products.

8.0 Data Analysis (To Assess Demand, Growth, and Users' Position of Online Shopping)

8.1 Multiple Regression Analysis

Multiple regression means models with just one dependent and two or more independent variables. The variable whose value is to be predicted is known as the dependent variable, and the ones whose known values are used for prediction are known as independent variables [51]. Multiple regression analysis mainly focuses on Model Summary, ANOVA, and coefficient. These models are interpreted as below:

Table 2: Model Summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.715^a	.511	.365		.90038

a. Predictors: (Constant), Age of Respondent, monthly income of respondent, frequency of online shop visit in a month, satisfaction about service quality, online shops provide good quality product, online shops charges reasonable price, products are always available, liking of webpage design of online shops, satisfaction about online shops after sales service facility

b. Dependent Variable: Demand and growth of online shopping.

Interpretation:

R represents the multiple correlation among the variables specified. According to Table 2, **R= 0.715**. It means high degree of correlation among the variables.

A common goodness of fit check is R^2 , which refers to the fraction of variance explained by the model, with results ranging between 0 to 1; the higher the value, the better the linear regression fits the data. According to Table 2, **$R^2 = 0.511$** measures the proportion of variation in dependent variable that is explained by the independent variables. In this case, 51.1% variance in dependent variable (Demand and growth of online shopping) is explained by independent variables (Age, monthly income,

frequency of online shop visit in a month, satisfaction about service quality, online shops provide good quality product, online shops charges reasonable price, products are always available, liking of webpage design of online shops, satisfaction about online shops after sales service facility).

This is an overall measure of the strength of association and does not reflect the extent to which any particular independent variable is associated with the dependent variable.

Table 3: ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	25.454	9	2.828	3.489	.005^a
Residual	24.321	30	.811		
Total	49.775	39			

a. Predictors: (Constant), Age of Respondent, monthly income of respondent, frequency of online shop visit in a month, satisfaction about service quality, online shops provide good quality product, online shops charges reasonable price, products are always available, liking of webpage design of online shops, satisfaction about online shops after sales service facility

b. Dependent Variable: Demand and growth of online shopping

In this research, the hypotheses of multiple regression analysis are as below:

H₀: R² = 0 or

H₀: β₁ = β₂ = β₃ = β₄ = β₅ = β₆ = β₇ = β₈ = β₉ = 0

H₁: β₁ β₂ β₃ β₄ β₅ β₆ β₇ β₈ β₉ ≠ 0

H1: Age of respondent is positively related to demand and growth of online shopping.

H2: Monthly income of Respondent is positively related to demand and growth of online shopping.

H3: Frequency of online shop visit in a month is positively related to demand and growth of online shopping.

H4: Satisfaction about service quality is positively related to demand and growth of online shopping.

H5: Good quality product is positively related to demand and growth of online shopping.

H6: Reasonable price is positively related to demand and growth of online shopping.

H7: Service availability is positively related to demand and growth of online shopping.

H8: Web page design is positively related to demand and growth of online shopping.

H9: After sales service facility is positively related to demand and growth of online shopping.

Interpretation

According to Table 3, the value of **F is 3.489**, which is significant with 9 and 30 degrees of freedom at $\alpha = 0.05$. The value in significance column is 0.005 which indicates the statistical significance of the regression model. According to table 3, the value is 0.005 which is less than 0.05. It indicates that the model applied is significantly good enough in predicting the outcome variable.

Here, the Null hypothesis is rejected.

Table 4: Regression Analysis

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.057	1.244		1.653	.109		
Age of Respondent	.066	.148	.084	.450	.656	.465	2.149
Monthly income of Respondent	.007	.172	.008	.038	.970	.365	2.742
Frequency of online shops visit in a month	-.119	.299	-.079	-.399	.693	.415	2.408
Satisfaction about service quality	.533	.185	.496	2.885	.007	.552	1.811
Online shops provide good quality product	.029	.180	.028	.162	.873	.535	1.870
Online shops charge reasonable price	-.066	.086	-.104	-.764	.451	.886	1.128
products are always available	.241	.137	.289	1.761	.088	.606	1.650
Liking of online shops web page design	.131	.142	.143	.925	.362	.679	1.472
Satisfaction about online shops after sales service	-.218	.104	-.339	-2.098	.044	.624	1.602

a. Dependent Variable: demand and growth of online shopping

Interpretation:

According to Table 4 the estimated model can be illustrated as follows:

(Demand and Growth of Online shopping) = 2.057 + 0.066 (age) + 0.007 (income) - 0.119 (Frequency) + 0.533 (service quality) + 0.029 (product quality) - 0.066 (price) + 0.241 (service availability) + 0.131 (web page design) - 0.218 (after sales service).

On the basis of this model demand and growth of online shopping shows value 2.661. It means that online shopping system has good demand and growth. Frequency of online shop visits, price and after sales service shows negative correlation with demand and growth of online shopping. The higher the values of those variables, the poorer the demand and growth of online shopping system and vis-a-vis.

8.2 Factor Analysis

To conduct factor analysis, some steps from problem formulation to determining model fit were followed. The steps are explained as below:

Step 1: Formulating the Problem

The objective of factor analysis is to summarize the interrelated variables into few underlying factors. The variables are included in the analysis based on past information, theory, and personal judgment.

The independent variables for factor analysis are age, income, frequency of online shop visit in a month, service quality, product quality, price, service availability, web page design, and after sales service.

In this case, the underlying factors related to demand and growth of online shopping system is attempted to find out.

Step 2: Constructing the Correlation Matrix

Correlation matrix examines the appropriateness of factor analysis. For the factor analysis to be appropriate, the variable must be correlated.

Formal statistics are available for testing the appropriateness of the factor model. Here Bartlett's test of sphericity and Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy was used, while the null hypothesis is that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.676
Bartlett's Test of Sphericity	Approx. Chi-Square	106.852
	Df	36
	Sig.	.000

Interpretation

According to Table 5, the value of **KMO is 0.676** which is greater than the desirable value of 0.5. In addition, the value of **Chi-Square is 106.852** with 36 degrees of freedom, which is significance at the 0.05 level. But here the value of **significance is 0.000**, which is less than 0.05. From the above two points of view, null hypothesis is rejected and factor analysis is appropriate technique for analysis correlation matrix.

Table 6: Correlation Matrix

	Age of Respondent	Monthly income of Respondent	Frequency of online shops visit in a month	Satisfaction about service quality	Online shops provide good quality product	Online shops charge reasonable price	Products are always available	Liking of web page design of Online shops	Satisfaction about Online shops after sales service
Correlation	1.000	.697	.502	.375	.163	-.020	.013	.276	-.092
Age of Respondent		1.000	.606	.402	.286	.031	-.087	.340	-.151
Monthly income of Respondent	.697		1.000	.368	.239	.019	-.145	.047	-.464
Frequency of Online shops visit in a month	.502	.606		1.000	.569	.123	.266	.335	.070
Satisfaction about service quality	.375	.402	.368		1.000	.144	.379	.436	.054
Online shops provide good quality product	.163	.286	.239	.569		1.000	.308	.070	.057
Online shops charge reasonable price	-.020	.031	.019	.123	.144		1.000	.258	.400
Products are always available	.013	-.087	-.145	.266	.379	.308		1.000	.100
Liking of web page design of Online shops	.276	.340	.047	.335	.436	.070	.258		1.000
Satisfaction about Online shops after sales service	-.092	-.151	-.464	.070	.054	.057	.400	.100	

Interpretation

The results of factor analysis are given in the table 5. The null hypothesis, that the population correlation matrix is an identity matrix, is rejected by the Bartlett's test of sphericity. The approximate chi-square statistic is 106.852 with 36 degrees of freedom, which is significant at the 0.05 level. The value of KMO statistic (0.676) is also large (>0.05). Thus factor analysis may be considered an appropriate technique for analyzing the correlation matrix of table 6.

Step 3: Determining the Method of Factor Analysis

After determining the appropriateness of factor analysis, an appropriate method must be selected. Here the most commonly used method Principal Components Analysis is used. It is used to determine the minimum number of factors that will account for maximum variance in the data.

Table 7: Total Variance Explained

Factor	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.978	33.091	33.091	2.978	33.091	33.091	2.798	31.093	31.093
2	2.032	22.575	55.665	2.032	22.575	55.665	2.212	24.572	55.665
3	1.019	11.319	66.984						
4	.849	9.434	76.419						
5	.714	7.933	84.351						
6	.505	5.608	89.959						
7	.382	4.243	94.202						
8	.300	3.337	97.538						

Table 7: Total Variance Explained

Factor	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.978	33.091	33.091	2.978	33.091	33.091	2.798	31.093	31.093
2	2.032	22.575	55.665	2.032	22.575	55.665	2.212	24.572	55.665
3	1.019	11.319	66.984						
4	.849	9.434	76.419						
5	.714	7.933	84.351						
6	.505	5.608	89.959						
7	.382	4.243	94.202						
8	.300	3.337	97.538						
9	.222	2.462	100.000						

Extraction Method: Principal Component Analysis

Interpretation

From Table 7 named Total variance explained presents the number of common factors extracted, the eigenvalues associated with these factors, the percentage of total variance accounted for by each factor and cumulative percentage of total variance accounted for by the factors. Using the criterion of retaining only factors with eigenvalues of 1 or greater, two factors were retained for rotation. These two factors accounted for 31.093% and 24.572% of the total variance respectively for a total of 55.665%.

Step 4: Determining the Number of Factors

In order to summarize the information contained in the original variables, a smaller number of factors should be extracted.

On the basis of determination, two factors were determined here. The advantage of determining two factors is - easy to interpret or easy to summarize.

Step 5: Rotation of Factors

To enhance the interpretation of the solution factor rotation is often used. In complex matrix, it is difficult to interpret the factor. Therefore, through rotation, the factor matrix is transformed into a simpler one that is easier to interpret.

The most commonly used method for rotation is the varimax procedure was used here. This method minimizes the number of variables with high loadings on a factor, which enhances the interpretability of the factors. The factor matrix (unrotated) and rotated factor matrix are shown by Table 8 and Table 9.

Table 8: Factor Matrix^a (Unrotated)

	Factors	
	1	2
Age of Respondent	.731	-.257
Monthly income of Respondent	.805	-.300
Frequency of Online shops visit in a month	.677	-.514
Satisfaction about service quality	.737	.250
Online shops provide good quality product	.639	.423
Online shops charge reasonable price	.152	.373
Products are always available	.209	.785
Liking of web page design of Online shops	.548	.358
Satisfaction about Online shops after sales service	-.136	.696

Extraction Method: Principal Component Analysis.

- a. 2 components extracted.

Table 9: Rotated Factor Matrix

	Factors	
	1	2
Age of Respondent (V1)	.770	.087
Monthly income of Respondent (V2)	.855	.081
Frequency of online shop visit in a month (V3)	.834	-.168
Satisfaction about service quality (V4)	.554	.547
Online shops provide good quality product (V5)	.391	.660
Online shops charges reasonable price (V6)	-.026	.402
products are always available (V7)	-.154	.798
Liking of web page design of Online shopping (V8)	.337	.561
Satisfaction about Online shops after sales service facility (V9)	-.426	.567

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

- a. Rotation converged in 3 iterations.

Interpretation

The rotated component matrix presents two types of rotated factors as stipulated in the SPSS windows. Factor one contains four variables (e.g., V1='Age of Respondent', V2='Monthly income of Respondent', V3= 'Frequency of online shop visit in a month', V4= 'Satisfaction about service quality') that clearly reflect the highly involvement with customers' positive perception regarding selection of Online shopping and was thus labeled as “**personal factors**” such as age, income etc. (demographic variable). Factor two contains four variables (e.g., V5= 'Online shopping provide good quality product', V7= 'products are always available' V8= 'Liking of web page design of Online shops, V9= 'Satisfaction about Online shops after sales service facility') that specially indicate the relationship among all kinds of product quality is good, attractive web page design and secured after sales service facilities and was labeled “**online shop related factor**”.

Step 6: Interpretation of Factors

Interpretation is based on identifying the variables that have large loadings (absolute values more than 0.30 in factor matrix for unrotated and rotated) on the same factor. Factor loading plot is also used in interpretation of factors.

Table 10: Factor Matrix Before and After Rotation

Variables	1	2	Variables	1	2
1 (Q2)	X		1 (Q2)	X	
2 (Q5)	X		2 (Q5)	X	
3 (Q6)	X		3 (Q6)	X	
4 (Q8)	X		4 (Q8)	X	
5 (Q9)	X	X	5 (Q9)		X
6 (Q10)		X	6 (Q10)		X
7 (Q11)		X	7 (Q11)		X
8 (Q12)	X	X	8 (Q12)		X
9 (Q13)		X	9 (Q13)		X

A. High Loadings Before Rotation

B. High Loadings After Rotation

Step 7: Calculating Factor Scores

Following factor interpretation, calculating factor scores are important while subsequent multivariate analysis is required. In this research it is not necessary. Selecting a surrogate variable is also used instead of calculating factor scores. The factor score are shown in Table 11 named Factor Score Coefficient Matrix.

Table 11: Factor Score Coefficient Matrix

	Factor	
	1 (Personal factors)	2 (Online shop related factors)
Age of Respondent	.276	-.007
Monthly income of Respondent	.308	-.015
Frequency of Online shops visit in a month	.315	-.129
Satisfaction about service quality	.169	.219
Online shops provide good quality product	.102	.281
Online shops charge reasonable price	-.034	.188
Products are always available	-.105	.378
Liking of web page design of Online shops	.089	.239
Satisfaction about Online shops after sales service	-.191	.289

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Step 8: Determining the Model Fit

The final step in factor analysis is the determination of model fit. The differences between the observed correlations and the reproduced correlations can be examined to determine model fit. These differences are called residuals. The large numbers of residuals mean that the factor model does not provide a good fit to the data.

Table 12: Reproduced Correlations

	Age of Respondent	Monthly income of Respondent	Frequency of Online shops visit in a month	Satisfaction about service quality	Online shops provide good quality product	Online shops charges reasonable price	products are always available	Liking of interior atmosphere of Online shops	Satisfaction about Online shops after sales service
Reproduced Correlation	.600 ^a	.665	.627	.474	.358	.015	-.050	.308	-.279
Age of Respondent									
Monthly income of Respondent	.665	.738 ^a	.699	.518	.387	.011	-.067	.334	-.318
Frequency of Online shops visit in a month	.627	.699	.723 ^a	.371	.215	-.089	-.262	.187	-.450
Satisfaction about service quality	.474	.518	.371	.606 ^a	.577	.206	.351	.494	.074
Online shops provide good quality product	.358	.387	.215	.577	.588 ^a	.255	.466	.502	.208
Online shops charge reasonable price	.015	.011	-.089	.206	.255	.162 ^a	.325	.217	.239
Products are always available	-.050	-.067	-.262	.351	.466	.325	.660 ^a	.396	.519
Liking of web page design of Online shops	.308	.334	.187	.494	.502	.217	.396	.429 ^a	.175

Satisfaction about Online shops after sales service	-.279	-.318	-.450	.074	.208	.239	.519	.175	.504 ^a
Residual^b Age of Respondent		.032	-.126	-.100	-.194	-.035	.063	-.032	.187
Monthly income of Respondent	.032		-.093	-.116	-.102	.020	-.020	.006	.168
Frequency of Online shops visit in a month	-.126	-.093		-.003	.024	.108	.117	-.140	-.013
Satisfaction about service quality	-.100	-.116	-.003		-.008	-.083	-.085	-.159	-.004
Online shops provide good quality product	-.194	-.102	.024	-.008		-.111	-.087	-.065	-.154
Online shops charge reasonable price	-.035	.020	.108	-.083	-.111		-.017	-.147	-.182
Products are always available	.063	-.020	.117	-.085	-.087	-.017		-.138	-.119
Liking of web page design of Online shops	-.032	.006	-.140	-.159	-.065	-.147	-.138		-.075
Satisfaction about Online shops after sales service	.187	.168	-.013	-.004	-.154	-.182	-.119	-.075	

Extraction Method: Principal Component Analysis

a. Reproduced communalities

b. Residuals are computed between observed and reproduced correlations. There are 24 (66.0%) non-redundant residuals with absolute values greater than 0.05.

Interpretation

According to Table 12 there are 24 (66.0%) non-redundant residuals with absolute values greater than 0.05. This means that the factor model is 34 % fit.

8.3 Cluster Analysis

Cluster analysis is conducted by following steps from problem formulation to assessing reliability and validity.

Step 1: Formulation of the problem

The problem for cluster analysis is to find out homogeneous groups of customer based on their attitudes. In this research a clustering of respondents based on their demand toward online shopping system was considered. Six variables have been identified. Respondents were asked to express their degree of agreement with these six statements on 9-point Likert scale.

Six variables are shown as below:

- V1: I prefer to visit online shops on different occasions.
- V2: I consider discount while shopping online.
- V3: Service and product quality is very important to me
- V4: Price influences me to select online shops.
- V5: Brand is not important to me.
- V6: I do not want after sales service

Data obtained from a sample of 100 respondents are shown in the Table in Appendix.

Step 2: Selection of a distance of similarity measure

Because the objective of clustering is to group similar objects together, some measure is needed to assess how similar or different the objects are. The most common approach is to measure similarity in terms of distance between pairs of objects. To

measure the similarity between objects, Euclidean distance measure was used, which is the most commonly used measure of similarity.

Step 3: Interpretation and profiling the clusters

To interpret and profile the cluster findings means of the variable of each cluster (Cluster Centroids) is necessary. These are shown in the following table:

Table 13: Cluster Centroids

Cluster No	Means of Variables					
	V1	V2	V3	V4	V5	V6
1	6.64	3.79	7.57	4.84	2.14	1.86
2	6.81	4.81	8.06	6.06	2.44	7.44

V1: I prefer to visit online shops on different occasions.

V2: I consider discount while shopping online.

V3: Service and product quality is very important to me

V4: Price influences me to select online shops.

V5: Brand is not important to me.

V6: I do not want after sales service

Interpretation

The centroids were used to describe each cluster by assigning it a name or label. The two clusters are labeled as below:

Cluster 1: It has highest values in V1 and V3. On the other hand, it has lowest values on V5 and V6. This group of customer is very brand sensitive. This group fit in to upper class citizen and labeled as prosperous.

Cluster 2: This cluster has highest values on V3, V4, and V6. It labels that this group of customer is price sensitive. On the other hand it has lowest values in V2 and V5.

They want to cost less for quality product and service. They also need after sales service. This group can be labeled as economical.

8.4 Reasons behind not purchasing from online shop

The above survey reveal that, because of higher price of online shops 33% of the respondents do not purchase from online shop. 18% of the respondents do not shop from online because they do not have much knowledge about how to shop online. 17% of the respondents do not use this shopping system because they think this type of shopping system is less secured. 11% of the respondents think that payment system is complex in online shopping system. That is why they do not use this system. 10% of the respondents are more brand oriented. They do not buy products from online because most of the well known fashion houses are still of online shopping system. Another reason of not purchasing from online shopping is that online shops have lesser amount of products. Only 2% respondents indicate that they do not buy from online shops because our Internet speed is slow and poor.

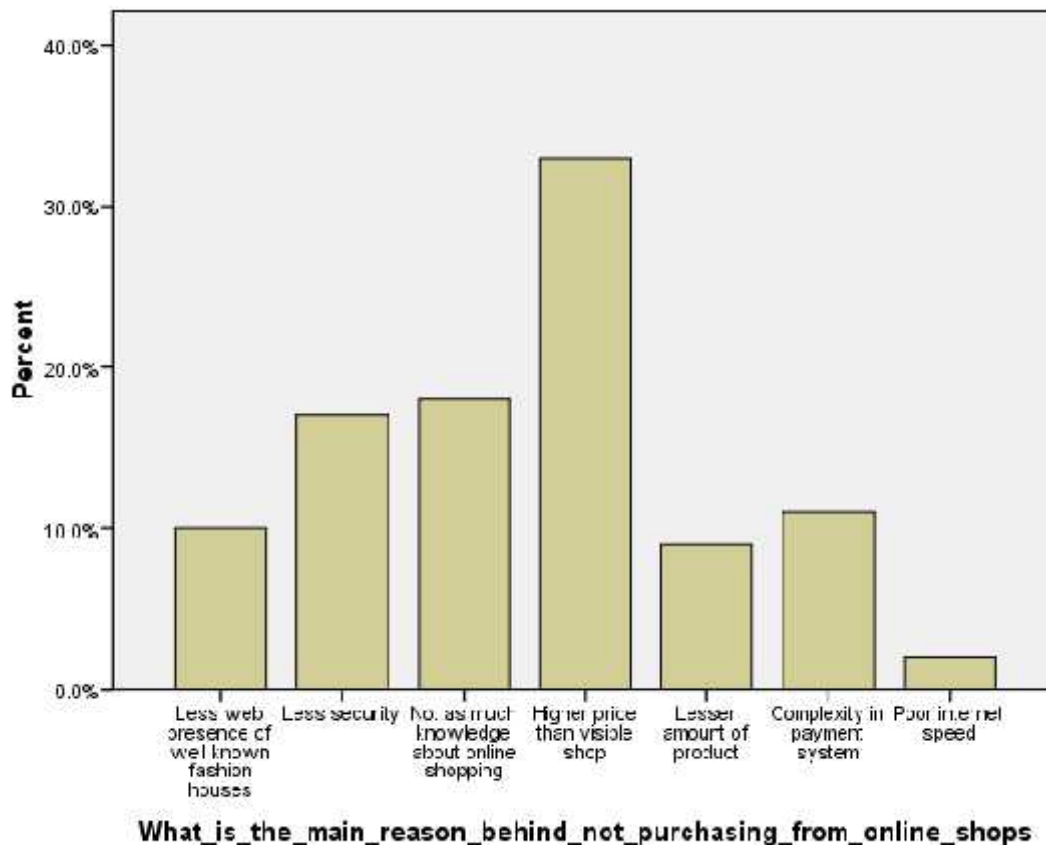


Chart 3: Reasons behind not purchasing from online shop

9.0 Recommendations

A class issue seems to be surfacing in the realm of shopping behavior. Illiterate and limited income people would seem to be deprived of online shops products and services. This shopping system required sound infrastructure of communication or telecommunication system. To solve this income, education, and information disparity there are some suggestions:

-) To attract new visitors and to encourage revisits, online marketers should pay close attention to the seven Cs (context, content, community, customization, communication, connection, and commerce) of successful web site design.

-) They should prepare creative advertisements of their sites in offline print media like newspaper, magazine, billboard etc and broadcast advertisements through radio, and television that will communicate limited income people.
-) Online shops should try to offer different quality products over online so that upper, middle, and lower class people can become more interested to use online shops regularly.
-) Provide specific effort in viral marketing. Encourage customers of online shops to inform others about this service.

Including new and improved value added products or services and pricing the online marketers can follow the subsequent strategies-

-) to find cost effective ways to increase market size and generate higher revenues,
-) to gain competitive advantage in factors other than just the price,
-) to regularly collect information about customer needs,
-) to perform marketing activities based on knowledge about customers,
-) to base prices on what competitors and brick and mortar shops charge and what the market is willing to pay, and
-) to attend in every fair and try to show the mass audience the convenience of using online shopping system and generate more revenue.

The government of the country should also take some actions. Here are some suggestions regarding the government:

-) improve the poor infrastructure of the communication system,
-) improve the old and conservative banking system of government banks and force them to try new technology like issuing credit or debit cards, and
-) arrange, fairs, seminars, symposiums, etc., to make mass audience aware about digital system as well as online shopping system by science and ICT ministry.

10.0 Conclusion

Bangladesh is one of the poorest, most densely populated and least developed countries in the world. 31.5 % people of this country are living below the national poverty line [52]. Only 24% people out of total population are living in the urban areas [53]. The literacy rate of population age 15 is 55% of the total population [54]. Telecommunication and Internet technologies are the backbone of online shopping in any country. Bangladesh has slow pace of development in telecommunication and Internet technologies. Except the major cities, the benefits of these technology advancements are not dispersed in the same way all over the country. Internet access is limited to specific regions and specific segments of the society. In spite of all these conditions, online shopping in Bangladesh is becoming more popular day by day. Because of proliferated use of handheld and wearable devices at present the reach of Internet seems rapid. In future it may not be quite impossible that the traditional shopping system would be less popular than online shopping.

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Appendices:

Appendix-1 Questionnaire

Research Topic: Online Shopping in Bangladesh: Present Scenario and Prospect

Respondent No:

1. Name:

(Please tick the box, which is the appropriate for you)

2. Age (years):

1	2	3	4	5
Below 18	18-25	26-33	34-41	Above 42

3. Gender:

1	2
Male	Female

4. Occupation:

1	2	3	4	5
Student	Service Holder	Business Man	Housewife	Others

5. (Your) Monthly Income/ amount of money you get to live:

1	2	3	4	5
Below 5,000 BDT	5,000-14,999 BDT	15,000-24,999 BDT	25,000-34,999 BDT	Above 35,000 BDT

6. How often do you visit online shops a month?

1	2	3	4	5
1-4 times	5-8 times	9-12 times	13-16 times	Over 17 times

7. What is your attitude toward online shopping system?

1	2	3	4	5	6	7	8	9
Extremely Bad	Very Bad	Bad	Somewhat Bad	Neither Bad Nor Good	Somewhat Good	Good	Very Good	Excellent

8. I am satisfied with online shops service quality.

1	2	3	4	5	6	7	8	9
Extremely disagree	Very Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely Agree

9. Online shops provides quality product.

1	2	3	4	5	6	7	8	9
Extremely disagree	Very Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely Agree

10. Online shops charges reasonable price.

1	2	3	4	5	6	7	8	9
Extremely disagree	Very Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely Agree

11. All items are always available, when I visit online shops.

1	2	3	4	5	6	7	8	9
Extremely disagree	Very Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely Agree

12. I like the design of online shopping websites.

1	2	3	4	5	6	7	8	9
Extremely disagree	Very Disagree	Disagree	Somewhat at	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely Agree

13. I am satisfied with online shops after sales service facility.

1	2	3	4	5	6	7	8	9
Extremely Disagree	Very Disagr	Disagre e	Somewha t disagree	Neither Agree nor Disagree	Somewhat Agree	Agree e	Very Agree	Extremely Agree

14. Please give your opinion(s) regarding the following statements.

(Please tick the box according to your agreement or disagreement of the statement)

Variable	Statements	Extremely Disagree	Very Disagree	Disagree	Somewhat disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Very Agree	Extremely agree
V1	I prefer to visit online shops on different occasions.	1	2	3	4	5	6	7	8	9
V2	I consider discount while shopping online.	1	2	3	4	5	6	7	8	9
V3	Service and product quality is very important to me.	1	2	3	4	5	6	7	8	9
V4	Price influences me to select online shops.	1	2	3	4	5	6	7	8	9
V5	Brand is not important to me.	1	2	3	4	5	6	7	8	9
V6	I do not want after sales service	1	2	3	4	5	6	7	8	9

15. What is the main reason behind not purchasing from online shops? (Please select any one).

- A. Less web presence of well known fashion houses
- B. Less security
- C. Not as much knowledge about online shopping
- D. Higher price than visible shop

- E. Lesser amount of product
 - F. Complexity in payment system
 - G. Poor Internet speed
- (Thank you for your kind assistance by providing valuable information)

Appendix 2: Regression Analysis

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.057	1.244		1.653	.109		
Age of Respondent	.066	.148	.084	.450	.656	.465	2.149
Monthly income of Respondent	.007	.172	.008	.038	.970	.365	2.742
Frequency of online shops visit in a month	-.119	.299	-.079	-.399	.693	.415	2.408
Satisfaction about service quality	.533	.185	.496	2.885	.007	.552	1.811
Online shops offer good quality product	.029	.180	.028	.162	.873	.535	1.870
Online shops charge reasonable price	-.066	.086	-.104	-.764	.451	.886	1.128
All types of product items are always available	.241	.137	.289	1.761	.088	.606	1.650
Like of online shops web page design	.131	.142	.143	.925	.362	.679	1.472
Satisfaction about online shops after sales service	-.218	.104	-.339	-2.098	.044	.624	1.602

a. Dependent Variable: demand and growth online shops

Appendix 3: Cluster Analysis

		N	% of Combined	% of Total
Cluster	1	35	35.0%	35.0%
	2	25	25.0%	25.0%
	3	40	40.0%	40.0%
	Combined	100	100.0%	100.0%
Total		100		100.0%

Case Processing Summary^{a,b}

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
100	100.0	0	.0	100	100.0

- a. Squared Euclidean Distance used
- b. Average Linkage (Between Groups)

Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	80	100	.000	0	0	21
2	79	99	.000	0	0	22
3	78	98	.000	0	0	23
4	77	97	.000	0	0	24
5	76	96	.000	0	0	25
6	75	95	.000	0	0	26
7	74	94	.000	0	0	27
8	73	93	.000	0	0	28
9	72	92	.000	0	0	29
10	71	91	.000	0	0	30
11	70	90	.000	0	0	31
12	69	89	.000	0	0	32

13	68	88	.000	0	0	33
14	67	87	.000	0	0	34
15	66	86	.000	0	0	35
16	65	85	.000	0	0	36
17	64	84	.000	0	0	37
18	63	83	.000	0	0	38
19	62	82	.000	0	0	39
20	61	81	.000	0	0	40
21	20	80	.000	0	1	61
22	19	79	.000	0	2	62
23	18	78	.000	0	3	63
24	17	77	.000	0	4	64
25	16	76	.000	0	5	65
26	15	75	.000	0	6	66
27	14	74	.000	0	7	67
28	13	73	.000	0	8	68
29	12	72	.000	0	9	69
30	11	71	.000	0	10	70
31	10	70	.000	0	11	71
32	9	69	.000	0	12	72
33	8	68	.000	0	13	73
34	7	67	.000	0	14	74
35	6	66	.000	0	15	75
36	5	65	.000	0	16	76
37	4	64	.000	0	17	77
38	3	63	.000	0	18	78
39	2	62	.000	0	19	79
40	1	61	.000	0	20	80
41	40	60	.000	0	0	61
42	39	59	.000	0	0	62
43	38	58	.000	0	0	63
44	37	57	.000	0	0	64
45	36	56	.000	0	0	65
46	35	55	.000	0	0	66
47	34	54	.000	0	0	67

48	33	53	.000	0	0	68
49	32	52	.000	0	0	69
50	31	51	.000	0	0	70
51	30	50	.000	0	0	71
52	29	49	.000	0	0	72
53	28	48	.000	0	0	73
54	27	47	.000	0	0	74
55	26	46	.000	0	0	75
56	25	45	.000	0	0	76
57	24	44	.000	0	0	77
58	23	43	.000	0	0	78
59	22	42	.000	0	0	79
60	21	41	.000	0	0	80
61	20	40	.000	21	41	96
62	19	39	.000	22	42	94
63	18	38	.000	23	43	96
64	17	37	.000	24	44	91
65	16	36	.000	25	45	81
66	15	35	.000	26	46	95
67	14	34	.000	27	47	83
68	13	33	.000	28	48	84
69	12	32	.000	29	49	87
70	11	31	.000	30	50	85
71	10	30	.000	31	51	81
72	9	29	.000	32	52	89
73	8	28	.000	33	53	86
74	7	27	.000	34	54	82
75	6	26	.000	35	55	82
76	5	25	.000	36	56	85
77	4	24	.000	37	57	83
78	3	23	.000	38	58	86
79	2	22	.000	39	59	84
80	1	21	.000	40	60	90
81	10	16	2.000	71	65	88
82	6	7	2.000	75	74	87

83	4	14	3.000	77	67	88
84	2	13	3.000	79	68	92
85	5	11	3.000	76	70	89
86	3	8	3.000	78	73	93
87	6	12	4.000	82	69	90
88	4	10	4.000	83	81	94
89	5	9	4.500	85	72	92
90	1	6	5.000	80	87	91
91	1	17	8.250	90	64	93
92	2	5	10.167	84	89	97
93	1	3	11.300	91	86	95
94	4	19	13.250	88	62	98
95	1	15	14.000	93	66	99
96	18	20	16.000	63	61	97
97	2	18	24.000	92	96	98
98	2	4	35.943	97	94	99
99	1	2	48.292	95	98	0

Appendix-4 Reasons behind not purchasing from online shop

Statistics

Main_reason_behind_not_purchasing_from_online_shops

N	Valid	100
	Missing	0

What is the main reason behind not purchasing from online shop?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less web presence of well known fashion houses	10	10.0	10.0	10.0
Less security	17	17.0	17.0	27.0
Not as much knowledge about online shopping	18	18.0	18.0	45.0
Higher price than visible shop	33	33.0	33.0	78.0
Lesser amount of product	9	9.0	9.0	87.0
Complexity in payment system	11	11.0	11.0	98.0
Poor Internet speed	2	2.0	2.0	100.0
Total	100	100.0	100.0	