

**A STUDY ON E-SHOP FOR AGRICULTURAL PRODUCTS IN
SELECTED AREAS OF BANGLADESH**

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**A STUDY ON E-SHOP FOR AGRICULTURAL PRODUCTS IN
SELECTED AREAS OF BANGLADESH**

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CERTIFICATE

*This is to certify that thesis entitled, “A STUDY ON E-SHOP FOR AGRICULTURAL PRODUCTS: SELECTED AREAS OF BANGLADESH” submitted to the Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **MASTER OF SCIENCE in DEVELOPMENT AND POVERTY STUDIES**, embodies the result of a piece of bonafide research work carried out by **FARHANA ISLAM**, Registration No. **08-03070** under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.*

I further certify that such help or source of information, as has been availed of during the course of this investigation has duly been acknowledged.

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DEDICATED

TO

MY PARENTS

ABBREVIATIONS

B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
BBS	Bangladesh Bureau of Statistics
BGMEA	Bangladesh Garment Manufacturer Exporter Association's
BTRC	Bangladesh Telecommunication Regulatory Commission
C2C	Consumer to Consumer
E-Bay	Electronic Bidding All Year
FAO	Food and Agriculture Organization of the United Nations
IBM's	International Business Machines
ICT	Information and Communication Technology
ISP	Internet Service Provider
NGO	Non-Government Organization
NPO	Non-Profit Organization
PSTN	Public Switched Telephone Network
RMG	Ready Made Garments
SAU	Sher-e-Bangla Agricultural University
SMS	Short Message Service
SPSS	Statistical Package for the Social Sciences
WHO	World Health Organization
WiMAX	Worldwide Interoperability for Microwave Access

GLOSSARY OF TERMS

- Aratdar*** An *Aratdar* arranges or negotiates sales for the sellers on a commission basis. He often acts as a wholesaler.
- Paiker/Bepari*** A *Paiker* is a middleman in the marketing chain; often covers the assembly function in the chain, acting as *Dadandar* at the same time; depending on the location sometimes also referred to as wholesaler or retailer. They are also called *Bepari*.
- Faria*** *Farias* are intermediaries usually operating in the marketing process who purchases small quantity of agricultural products far away from the market and carry it to the terminal point and sell it to *Aratdar* or retailer.
- Wholesalers** These are known for purchase of bulky products with better financial and information capacity. They are major actors in the marketing channel and they purchase products directly from the growers, *Bepari* or *Faria*. They are relatively large intermediaries having fixed establishment in the market and have permanent staff.
- Retailers** They are known for their limited capacity of purchasing and handling products with low financial and information capacity. Besides, these are the ultimate actors in the market chain that purchase and deliver products or service to consumers.
- Consumers** A person who purchases goods and services for personal use is known as consumers. From the consumers' point of view, the shorter the marketing chain, the more likely is the retail price going to be affordable.

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*MAY 31, 2015
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A STUDY ON E-SHOP FOR AGRICULTURAL PRODUCTS IN SELECTED AREAS OF BANGLADESH

ABSTRACT

The agricultural marketing system is surrounded with several constraints and farmers are deprived to get fair price. Therefore, an advanced marketing system is needed to solve this problem. In the present study, an attempt was made on the adoption and use of E-shop (online shop) for selling farm products which will be directed by farmers. To understand the constraints and interest of the respondents on adopting new marketing system, two separate questionnaires were prepared for gathering farmers and consumers information. The farmers' information was collected from two villages of Thakurgaon district whereas consumers' information was collected from Thakurgaon (rural consumers) and Dhaka (urban consumers). The results of farmers' perspective indicated that farmers were poor in education and economic status. Almost half of them lend money every year. They involved in few marketing activities and sold their products just after harvest. Various constraints were faced by them during selling farm products. Therefore, they were highly interested to adopt new marketing system E-shop. However, knowledge about E-shop was poor among them but intent to learn. The results of factor analysis showed that economic status and agricultural marketing system related activities had high influence on the acceptance of E-shop. In contrast, the results of consumers' perspective indicated that, economic status, education, smart phone and internet usage, knowledge about E-shop and purchase frequency from E-shop were high among urban consumers than rural consumers. Almost all of the urban and rural consumers' showed positive interest in using E-shop but some item should be improved. 'Time saving' and 'home delivery' were the most attracting features of E-shop. The advantages and disadvantages in using E-shop are the main influencing factors. A model of E-shop for agricultural products was developed using the current findings. This model is based on farmers' co-operative organization which will form and manage directly by farmers and control the whole marketing system. It will also provide necessary support and ensure farmers' participation in new marketing system.

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CHAPTER I

INTRODUCTION

1.1 Background

Agriculture is one of the significant contributing sectors to the GDP of Bangladesh. Most of the people of country have direct or indirect involvement with the agriculture where 15,089,000 families out of total 17,600,804 families involve with the agriculture. Agriculture was the first contributor to GDP (71%) in 1971 while the contribution of agriculture sector to GDP was only 17.3% in 2013. In terms of employment, agriculture still remains the largest source of income but the relative contribution of agriculture to GDP has fallen over time due to expansion of the industrial and service sector in Bangladesh. However, about 85% of the population is directly or indirectly attached to agriculture, though 47.3 % of the total population has direct employment in agricultural sector whereas 52.7% of the total population involved in non-agricultural employment. The land distribution of Bangladesh are as followed: total cultivable land 36962000 acres, forest land 6368000 acres and waste area 9638000 acres. Among this cultivable area, some areas are used three to four times in years with cropping intensity 190 % for cultivation of different types of major crops (BBS, 2013).

Lot of programs and initiatives have taken by the government and non-government organizations (NGOs) for the development of agricultural sector but all of the initiatives emphasize on the high production through different programs. Due to

proper planning by the government and NGOs, crop production has increased by twice to thrice in the last few economic decades. But it is evident that without an efficient agricultural marketing system, high crop production can't be sustained longer. When the farmers don't get the fair price for their products they must be demotivated or unable to continue farming for financial crisis.

The advent of the internet and the increasing sophistication of communication technology of the 21st century have made almost every aspect of our life easy and comfortable. Bangladesh is progressing in developing the internet and information communication technology. At present, mobile internet subscriber in Bangladesh is 44.223 million, WiMAX internet subscriber is 0.198 million, ISP + PSTN subscriber is 1.256 million, total number of internet users in Bangladesh has reached 45.677 million at the end of April, 2015 (Source: BTRC, April, 2015). However, in Bangladesh public awareness about the benefits of information communication technology and its multiple uses is limited among the people. Environment context such as education, culture and other social aspects directly or indirectly mediate the use of integrated technology (Parvin *et al.*, 2007).

1.1.1 Agricultural marketing system in Bangladesh

Marketing plays an important role not only in stimulating production but also in accelerating the pace of economic development. Agricultural marketing is an essential tool to uninterrupted, adequate and timely supply of agricultural products, inputs and services to target groups, including producers, consumers and intermediaries and agricultural marketing is not just a means of distributing agricultural product but also a way of stimulating new forms of production (Abbott, 1987). Large number inter-

connected activities are involved in agricultural products marketing, these are: planning, production, growing and harvesting, grading, packaging, transport, storage distribution and sale (Sultana, 2012).

The farmers of Bangladesh only perform a few steps of all marketing activities as for their illiteracy and inefficient infrastructure of the agricultural marketing system. Efficient marketing system usually ensures higher level of producer's share, reducing the number of middlemen and restricting the marketing charges, malpractices during marketing of farm products (Habib and Shah, 2014). It is, therefore, essential to explore the efficient marketing channels and to suggest the producers the channels for obtaining optimum prices of their farm produce.

1.1.2 Constraints faced by farmers' in agricultural product marketing

At present, Bangladesh's agricultural marketing system is often accused in the popular press of being inefficient. The farmers are not in a good condition from the economic perspective as they don't get the fair price of the products due to using an unproductive marketing channel. There is a significant difference between the price what the consumers pay and the price what farmers get (Fig. 1.1). This means that farmers are not receiving fair price of their products.

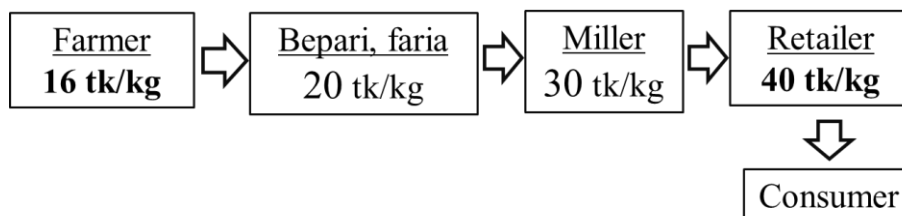


Figure 1.1: Existing marketing channel for rice (Abdullah and Hossain, 2013).

Intermediaries in agricultural product marketing are playing a prominent role in agribusiness sectors. But in the context of our country this intermediaries are making the agribusiness as a risky business absorbing major portion of the benefits from the farmers and gaining high profit by setting a high price from ultimate consumer of agricultural commodities (Fig. 1.1). In course of time, marketing of agricultural products in Bangladesh, supply of the products is artificially interrupted and adversely affected by some intermediaries who are not actually the major players in the agricultural sectors. These redundant intermediaries create a marketing channel through which farmers have to supply their products to the markets, thereby creating a value chain. The value chains which are created and maintained by the intermediaries have profound impact on the ability of farmers that creates barriers in getting fair price for their output. Absence of adequate institutional network persists to deal with the marketing of all major commodities such as rice, vegetables, jute, cotton, sugarcane and tea in the country (Abdullah and Hossain, 2013)

Different studies on agricultural marketing of Bangladesh explores that farmers of this country are always deprived of fair price for their products due to plethora of middleman like *beparis, farias, wholesalers, commission agents/aratdars, contract-buyers, cold storage operators, wholesaler-retailers, assembler-wholesalers, hawkers and retailers* and they also force the farmers to sell their products to them by tying up some conditions (Sultana, 2012). The middlemen or intermediaries in the agricultural market create artificial shortage in the supply and increase the price of the product (Chowdhury, 2011). Farmers suffer from a number of difficulties such as price differentiation, high production cost, lack of government policies, rules and regulation,

lack of improved technical personal that reduce their bargaining power. They are deprived of getting the fair price for their products. In addition to the value chain, there are a number of factors that obstruct the farmers from receiving fair price for their products. Farmers are compelled to sell their products at the harvest time when the prices are minimal resulting in a very low return for their produced products. Small and marginal farmers in the remote rural areas remain ignorant about the current price of their product in the market, their trends, demand and supply which create obstacles for the farmers in getting fair price of their products. Ultimately, the farmers who produce and bear the risks associated with the crop production are deprived of the major benefits of their products.

Habib and Shah (2014) stated that efficient commodity markets have favorable functional impacts on primary producers, exports, imports, government revenue and other enterprises. In a number of economies, organized agricultural marketing systems, known as agricultural commodity exchanges, have efficiently linked farmers and agricultural producers with consumers at home and abroad. Commodity exchanges are helpful to discover efficient price systems and resolve contractual disputes thus offering a fast and low cost mechanism.

It is, therefore, essential to explore the efficient marketing channels and to suggest the producers that channels for obtaining optimum prices of their farm produce. So far, very few researches have been done, especially on marketing aspects of agricultural products in this country using the E-shop.

1.1.3 E-business in Bangladesh

Business conduct over the internet is generally referred as E-business. Electronic business, or E-business, is the application of Information and Communication Technologies (ICT) in support of all the activities of business. Commerce constitutes the exchange of products and services between businesses, groups and individuals and can be seen as one of the essential activities of any business. Electronic commerce focuses on the use of ICT to enable the external activities and relationships of the business with individuals, groups and other businesses or E-business refers to business with help of internet i.e. doing business with the help of internet network. The term "E-business" was coined by IBM's marketing and internet team in 1996 (Amit and Zott, 2001). E-business has become an effective mean of trade and commerce, in marketing and selling of diversified products and services around the world. The uses of internet in Bangladesh have increasing like many developing and developed countries. In 2013, internet users in Bangladesh increased to 33 million (Azad, 2013). Though, it is possible to upgrade the traditional marketing system with modern technology, it might be possible to get the appropriate price of a product for farmers. On the other hand consumers also received the products directly from the farmer. This type of marketing channel could be established with the help of internet and mobile phone. This integrated marketing channel is termed as E-shop which is popular among developed countries. E-business creates an opportunity to directly selling of the product to the customer without using any intermediaries. E-business covers mainly four areas: business to business (B2B), business to consumer (B2C), consumer to consumer (C2C) and business to government (B2G) (Hossain *et al.*, 2013).

1.1.3.1 Consumer to Consumer (C2C) business

Most of the e-commerce businesses present in Bangladesh are of C2C (Consumer to Consumer: Webpage where consumers themselves engage in buying and selling activities). These “eBay” type businesses are increasing at a tremendous rate as more consumers are getting access to the internet directly via their mobile phone and/ or smart phones. One of the popular e-commerce website till to date is www.clickbd.com, which started its journey in 2005. Lists of some C2C E-shop examples are www.ekhanei.com, www.wevbangladesh.com, www.bdbazaar.com, www.bikroy.com.

1.1.3.2 Business to Consumer (B2C) business

Some of the websites do offer products or services ultimately for the consumers. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine. List of some B2C businesses in Bangladesh are www.deshigreetings.com, www.hutbazar.com.bd, www.bdplace.com, www.akhoni.com, www.agrifgift.com, www.banglabazar.com, www.bajna.com.

1.1.3.3 Business to Business (B2B) business

In Bangladesh B2B e-commerce is already in operation for years. This type of business strategy generally establish between two buyers. Export sector has the great use of it. A major field of the use of e-commerce is ready made garments (RMG) sector. A specific use of internet technology would be to access The Bangladesh Garment Manufacturer Exporter Association’s (BGMEA) website, which provides a

list of member companies and key information regarding those firms. Example of B2B business is Amardesh E-shop (www.amardesheshop.com/).

1.1.4 General functional model of an E-shop

Now a day's online shops are very much popular in the developed country. The name of the world wide most popular online shop is Amazon.com (for details check myappmag.com). A general functional model of E-shop is shown in fig 1.2. This model showed that when consumer needs to buy some items they entered in the website of E-shop. They browse the desired products and compare the price and quality. After selecting the product on E-shop, they select the payment system and placed the order. This order request sends to the business house where the product is stored. Packaging the items carefully, the product is send directly to the consumer.

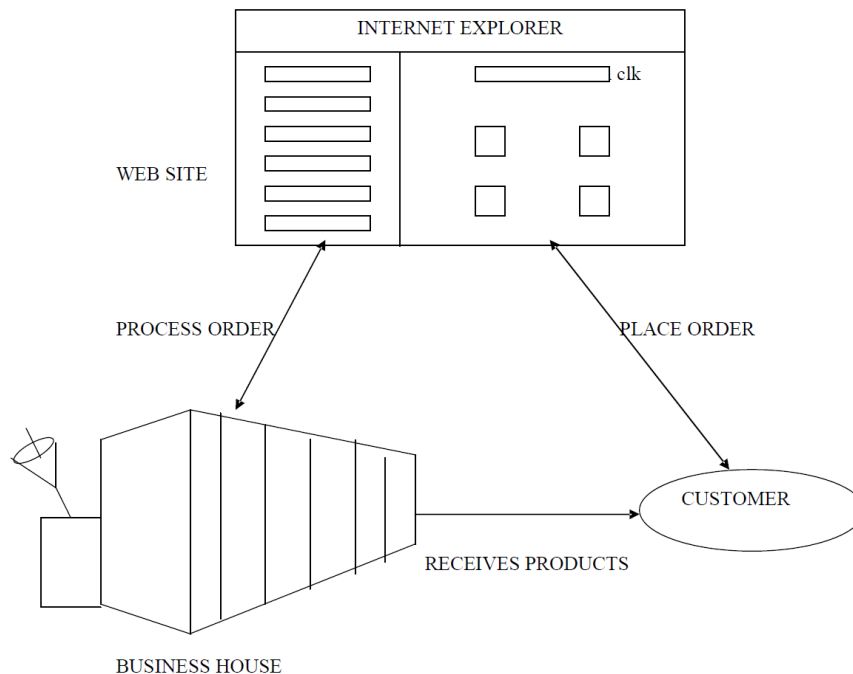


Figure 1.2: General diagram of marketing channel of an E-shop

1.2 Statement of the problem

In view of the overall discussion, an attempt was made to undertake a piece of research entitled “A Study on E-shop for Agricultural Products in Selected Areas of Bangladesh”.

Less improved marketing channel for agricultural products, from where farmers are getting benefitted, is one of the major barriers in achieving the millennium development goal. Matin *et al.* (2008) stated that if the farmers sell their agricultural products direct to the ultimate consumers then they will get more benefits, but it would not be possible because intermediaries were engaged to transfer of agricultural products from the farmers’ field to distant consumers. High rate of illiteracy, lack of financial support, inadequate transport facility, lack of rural electrification and ignorance of government responsibility etc. have caused problems in accessing agricultural information properly. Due to low income, necessary steps cannot be made for improving the marketing channel for agricultural products (Sultana, 2012). The main purpose of the study is to identify the factors affecting agricultural product marketing channel and how the latest technology can be introduced in improving agricultural marketing channel.

E-shop is the latest popular marketing system in developed countries and introduced in Bangladesh recently and gained mass popularity (for example of E-shop in Bangladesh, see Appendix-III). Treese and Stewart (2000) defined E-shopping is a process whereby customers directly buy goods or services from a seller in real time, without an intermediary service over the internet. Chaffey (2000 and 2006) stated that e-business and e-commerce is very important for management implications as such a

bridge to link leading edge research and professional practice is required. Johnson *et al.* (2001) showed that there are lot of differences between the online marketing and traditional marketing because online marketing provides one to one communication on the other hand traditional marketing is done through one to much communication system.

E-shop customers must have access to a computer and a method of payment (Rahman, 2010). In general, higher levels of education, income, and occupation of the head of the household correspond to more favorable perceptions of shopping online (Parvin *et al.*, 2007; Kashem and Shamima, 2014). Also, increased exposure to technology increases the probability of developing favorable attitudes towards new shopping channels (Bigne *et al.*, 2005). There are several constraints surrounded the E-shop marketing in Bangladesh such as education level, internet accessibility, online money transaction, product delivery, security, trust, user satisfaction in using e shop etc (Limayem, 2000; Alam and Yasin, 2010; Lee, *et al.*, 2011; Suhan, 2015). Eskildsen and Kristensen, (2007) observed that price strongly affect the customer expectation as we know that customer of the developing countries like Bangladesh are more price sensitive. Bangladesh is lagging behind to adopt the main stream of e-business application (Laisuzzaman *et al.*, 2010). However, none of this research deals with the factors related in selling of agricultural products through E-shop.

1.3 Key research questions:

The present study was attempted to provide information regarding the following key research questions:

- a) Farmers' or producers perspectives
 - 1) How much involvement of farmers in agricultural products marketing channel?
 - 2) What are the major constraints faced by farmers' in agricultural products marketing?
 - 3) What kind of factors those motivate farmers attitude in adopting new marketing channel?
- b) Consumers' perspectives
 - 1) What kind of factors those motivate consumers in purchasing products from E-shop?
 - 2) What are the major constraints faced by consumers' in purchasing products from E-shop?
 - 3) What kind of facility is needed for increasing use of E-shop for agricultural products?

1.4 Objectives of the study

The following specific objectives are formulated in order to give proper direction of the study:

- a. To know socio-economic status and the attitude of the farmers' and consumers' towards E-shop.
- b. To find out the constraints related with agricultural products marketing.
- c. To examine the affecting factors for adopting E-shop of agricultural products.
- d. To find out a suitable model of E-shop for agricultural product in Bangladesh.

1.5 Scope of the study

The economic condition of the farmers is not satisfactory and most of them want to shift their profession. One of the main reasons is that they do not get the proper price of their products. It is not possible to increase crop production and meet up the upcoming challenge of food demand, without ensuring proper price of farm products. Therefore, E-shop might be the appropriate concept of marketing agricultural products, where farmers can receive proper value of their products.

As an Internet based technology, E-shop is new and a quite unfamiliar for most of the people in Bangladesh due to the digital divide and the different level of internet experience and environments. Although consumers are interested in E-shop because shopping online saves time and free the customer from personally visiting the store.

Recently some E-shops are established and getting enormous popularity among local people in Bangladesh. Among these cell bazaar, bikroy.com etc. are well known. In the past decade, there has been a dramatic change in the way consumers have altered their way of shopping. This is the accurate time to modify the common pattern of agricultural products marketing system. This new concept of E-shop for marketing of agricultural products will put forward the whole society towards a sustainable agricultural environment with sustainable life.

1.6 Limitation of the study

The study was undertaken with a view to have an understanding of the factors affecting on E-shop for Agricultural Products in Bangladesh. But considering the time and fund, the study was conducted with the following limitations:

1. The main focus of this study was given on farmers and consumers interest on using E-shop for agricultural products marketing. The role of intermediaries is also important in agricultural product marketing which were investigated from previous studies. Therefore, the role of intermediaries in present situation might be slightly different.
2. Farmers didn't record their production so it was tough to collect accurate data. The researcher had to depend on the data furnished by the selected respondents during interview with them. There occurred various response and non-response error.
3. In view of time and resource constraints, conducting a comprehensive study in full depth and width has not been possible.

1.7 Hypothesis of the study

A hypothesis simply means a mere assumption or some supposition to be proved or disproved. But for a researcher, hypothesis is a formal question that's he intends to resolve. "A hypothesis is a proposition or a set of proposition set forth as an explanation for the concurrence of some specific group of phenomena either asserted merely as a provisional conjecture to guide some investigation or accepted as highly probably in the light of established fact"(Kothari, 1994). According to Kerlinger

(1973), “A hypothesis is a conjectural statement of the relation between two or more variables. Hypothesis are always in declarative sentence form and they related either generally or specifically variables to variables.” As defined by Goode and Hatt (1952) “A hypothesis is a proposition which can be put to test to determine its validity. It may be contrary to or in accord with the common sense. It deals to an empirical test.” In broad sense, hypothesis may be divided into two categories, (a) alternative hypothesis (H_1) and (b) null hypothesis (H_0). However, for the present study the hypothesis were formulated in null form. The following null hypothesis was formulated to assess the factors affecting on implementation and using of E-shop for agricultural products in Bangladesh. There is no relationship between each of parameters of the farmers and consumers with the factors affecting the implementation and use of E-shop.

1.8 Organization of the thesis

Chapter one describes the background, present agricultural marketing channels, constraints faced by farmers in agricultural products marketing, scope of E-business or E-shop and use it for selling agricultural products, future scope of the study, significance of the study, objectives, research questions, and limitations of the study. The second chapter provides review of literature which explains the importance of E-shop from farmers’ and consumers’ perspectives. The third chapter consists of the research methodology which explains the details procedure of implementation of this research. The results and discussion of this study is presented in chapter four, five, six and seven. Chapter four provides the results and discussion of farmer attitude towards E-shop. Fifth chapter explains the results and discussion of consumers’ attitude towards E-shop. Sixth chapter explains the results and discussion of factor analysis of

farmers and consumers which help to identify the most influential factors in implementing and use of E-shop. Seventh chapter is conducted to propose a model of E-shop for selling agricultural products directly from farmer's farm to consumers. Final chapter eight contains summary, conclusions and policy recommendations.

CHAPTER II

REVIEW OF LITERATURE

Review of literature gives the direction to the researcher for carrying research activities. The main purpose of this chapter is to review the past research works that are pertinent of present study. The research program is concerned with the factors affecting on E-shop for agricultural products. No research has been conducted on the constraints and factors which affect both producers and consumers to establish an E-shop. So related literature was not readily available directly for this study. A few of these studies relevant to this research are briefly discussed under three sections. Firstly the chapter focuses on theoretical perspectives under which major concepts and general information's are discussed. These include agricultural products marketing system, present status and scope of E-business, the role online shopping etc. Secondly some related studies in connection with the factors affecting on implementation and use of E-shop are presented. It focuses on findings from previous studies with regard to producers and consumers' perspectives how socio-demographic variables, attitudes and beliefs effects towards E-shopping and constraints in agricultural products marketing. Finally, a conceptual framework or chapter summary is presented.

2.1 Theoretical perspectives

According to BBS (2013), agriculture remains the most important sector of Bangladesh economy, contributing 17.3 percent to the national GDP and providing employment for 63 percent of the population. About 47.3% people were employed in agriculture sector whereas 52.5% people employed in non-agricultural sector.

Agriculture was the first contributor to the GDP (71%) in 1971 while the contribution of GDP is 17.3% in 2013.

According to Hossain *et al.* (2013) electronic commerce or e-commerce is a term for any type of business, or commercial transaction that involves the transfer of information across the Internet. It is currently one of the most important aspects of the Internet to emerge. E-commerce has significant impact on societies and businesses in Bangladesh. In the future e-commerce may become totally mobile based.

Armstrong and Kotler (2009) stated that in 2008, the total global e-commerce sale was Euro 690 billion (USD 961 billion) with 20% growth rate, hopefully, it would cross the 1 trillion Euro mark in 2013, Asia pacific region is leading in terms of growth as compared to mature markets like US, UK, Japan and European countries.

Chaffey (2006) dealt with strategy and applications of e-business and ecommerce in a logical but robust manner. Author stressed that e-business and e-commerce is very important for management implications as such a bridge to link leading edge research and professional practice is required.

Hoq *et al.* (2005) argued that a key reason that ecommerce, especially the business-to-business segment, is growing so quickly for its significant impact on costs associated with inventories, sales execution, procurement, intangibles like banking and distribution costs. If these reductions become pervasive, e-commerce has the potential to be the application that user in the large productivity gains. Achieving these gains is therefore contingent on a number of factors, including access to e-commerce systems and the needed skills. However, what is unique about ecommerce over the Internet

and the efficiency gains is that it promises the premium placed on openness. To reap the potential cost savings fully, firms must be willing to open up their internal systems to suppliers and customers. This raises policy issues concerning security and potential anti-competitive effects as firms integrate their operations more closely.

Uddin and Islam (2005) observed that the multifarious projections of ICT in human life plead a winning case for institutional integration of ICT related components in rural support programs taken by Governments and NGOs.

Ali *et al.* (2004) observed that maximize E-business efforts to focus on information dissemination, knowledge transfer, and technical assistance is required. Steps are needed to create appropriate knowledge among various procedures of e-business.

Rosen and Purinton (2004) observed that electronic communication has taken place in online shopping much like e-mail or different social media like face book, twitter etc, in case of online shopping customer can get the information like product description, shipment date, price, quantity from the seller easily.

Ali *et al.* (2003) argued that Bangladeshi companies, organizations have several problems to start full swing e-business. These include limited resources, backwardness in technology, managerial inefficiency, socio-infrastructural problem such as corruption, default culture law and order situation, rampant corruption, strike etc. which penetrate for long time.

Johnson *et al.* (2001) showed that there are lot of differences between the online marketing and traditional marketing because online marketing provides one to one communication which means that the marketer will market the product to one

customer round the clock on the other hand traditional marketing is done through one to much communication system.

Trees and Stewart (2000) defined 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.

Buffam and William (2000) depicted that companies that build the better e-business solutions will outperform their competitors. Companies that build the very best e-business solutions will transform themselves into zero-latency enterprises. Companies that choose not to embrace e-business, or do so ineffectively, will underperform or be driven out of business.

According to Swatman (1996), e-business has become an effective mean of trade and commerce, in marketing and selling of diversified products and services around the world. Electronic Commerce (EC) has changed the ways organizations perform their activities.

Zwass (1996) stated that electronic commerce is the sharing of business information, maintaining business relationships and conducting business transactions by means of telecommunications network.

Kalakota and Whinston (1996) first time stated that “Electronic Commerce deals with the facilities of transactions and selling of products and services online, i.e. via the internet or any other telecommunication network”.

2.2 Consumers' perspectives

It is imperative to focus on the internet availability and infrastructure of Bangladesh to analyze online consumers' perspective. Wilson (2002) said that a business can't rely on just one marketing approach, but must develop a whole spectrum of marketing strategies, operating simultaneously, in order to survive and flourish in a competitive world. Internet provides new type of opportunities if it is possible to develop an effective marketing mix.

2.2.1 Socio demographic factors

According to Kasem and Shamima (2014), most of the E-shop users are male and number of online consumers completed their graduation and prefer to make their purchases online.

Laisuzzaman *et al.* (2010) described that E-commerce is one of those sectors which need more attention. Bangladesh is far-far away to adapt the main stream of e-commerce application. Though government is shouting to take the challenges of e-commerce, but they do not take the right step, that is why e-commerce does not make any real contribution in our socio-economic life.

Parvin *et al.* (2007) stated that the demographical characteristic in Bangladesh has mix of positive and negative feelings. In total it indicates the rising sun perspective showing the bright future prospective in online shopping. The public awareness about the benefits of information communication technology and its multiple uses is limited among the people. Environment context such as education, culture and other social aspects directly or indirectly mediate the online shopping behavior of customers.

Swinyard and Smith (2003) observed that young people are the major customers of online shopping.

2.2.2 Attitude towards using E-shop

Alley (2011) said that the only extra expense is the delivery but this could be outweighed by travel expenses. A survey showed that people use online shopping for top three reasons: for convenience, to save time and the ability to compare shops.

Khare *et al.* (2011) showed the results show in the context of Bangladesh emphasis may be given on consumers' attitude building towards online shopping, availability of information, reasonable product price, and easy and secure payment process for making online shopping more popular especially in Dhaka city. This will not produce any negative impact on traditional shopping as the items are taken from the same mode of shopping mall or super market. The uses of internet in Bangladesh has increasing like many developing and developed countries.

Kirkman *et al.* (2002) analyzed the world internet availability and infrastructural situation. In that research Bangladesh was ranked 73 in the world as commercial use of internet is limited.

2.2.3 Constraints in using E-shop

Suhan (2015) stated that people depend on online shopping when they have less time. It is also stated that the people of Bangladesh prefer roaming around the market for shopping than shopping through E-shop. The online shops should treat this as an opportunity. In this way, they can increase their loyal customers. So, in crisis

moments, they seek help to the online shops. Bangladesh that the online shops delay and sometimes they do not deliver the product at all. Many prime online shops are suffering with this problem.

Lee *et al.* (2011) said that the value added to the products in online shopping is very high compared to the prices in the super markets in Dhaka city. Initiative is required to boost consumers' purchase intention and trust on online shopping.

Shopping Navigator, (2011) as viewed by the researchers in the western countries that the value of online store is supposed to be more than the traditional store as they incurred delivery charges but in the context of Bangladesh the prices are very high without delivery charges. It is perceived by the researchers in western countries that the value of online store is almost similar that of the traditional store but the situation is much different in Bangladesh.

Singh (2008) defend the transaction costs as those costs incurred in making an economic exchange. These can include tangible costs, such as the cost of transportation incurred in searching for a product, as well as intangible costs, such as the time and energy used to make an exchange.

Eskildsen and Kristensen, (2007) observed that price strongly affect the customer expectation as we know that customer of the developing countries like Bangladesh are more price sensitive. Product variety also effects the customer expectation as we all know that customer always expect variety of product arrangement; on the other hand customer also expects to get their expected product available while they are in online shopping.

Rahman (2001-2002) observed that issues relating to electronic fund transfer require security, availability, authenticity, non-reputability and audibility. He suggested for appropriate control and efficient security measures and also for proper utilization of audit trail in the e-commerce system.

Several researchers demonstrated that the issues of privacy and security have been labeled by government and consumer organizations as two major concerns of e-commerce (Briones, 1998).

2.2.4 Influencing factors related to consumers' satisfaction

Alhassan (2011) stated that positive effects of overall satisfaction with previous online purchases and attitude toward online purchasing on repeat purchase intentions. In turn, attitude is positively determined by overall satisfaction and negatively by experience with online purchase problems, while overall satisfaction is determined positively by satisfaction with the following online retailers' performance dimensions: product prices, product quality, customer service, required payment methods, perceived payment security, and delivery time. Contrary to expectations, delivery cost is not significantly related to overall satisfaction. Neither does experience with online purchase problems.

Alam and Yasin (2010) suggested in their article that website design, reliability, product variety and performances are the antecedents of customer satisfaction.

Hill and Alexander (2000) stated that it is very important to understand the customer loyalty and satisfaction and in case of online shopping system. In other word we can

say that accompany is more successful which makes customer satisfied on the other hand we can say that the more customer are satisfied the more company is successful.

Limayem *et al.* (2000) observed that several facilitating conditions were also significant for on line shopping such as site accessibility, reasonable web site loading speed, good product description, transaction efficiency and navigation efficiency.

Online shopping provides lots of advantage, among these two prominent advantages are large product variety and availability of many supplier, thus due to high competition price is cheap compared with local market (Brassington and Pettitt, 2000).

2.2.5 Advantages and popular E-shop for agricultural products in Bangladesh

Kasem and Shamima (2014) made a list with the five E-commerce website in Bangladesh on the basis of the respondent's opinions. These are priyoshop.com, akhoni.com, bikroy.com, biponee.com and rokomari.com.

There is a lot of difference between the online marketing and traditional marketing because online marketing provides one to one communication which means that the marketer will market the product to one customer round the clock on the other hand traditional marketing is done through one to much communication system (Armstrong and Kotler, 2009).

As it is mentioned earlier that online shopping provides lots of advantage, among these two prominent advantages are large product variety and availability of many supplier, thus due to high competition price is cheap compared with local market (Brassington and Pettitt, 2000).

2.3 Farmers' perspectives

Matin *et al.* (2008) conducted a research on mango marketing system of Bangladesh where he tried to identify the effective marketing channel for the farmers in respect to cost and margin. In his study he finds that if the farmers sell their mango direct to the ultimate consumers then they will get more benefits, but it would not be possible because intermediaries were engaged to transfer mango from the farmers' field to distant consumers.

In developing economics, access to accurate market information can be limited by poor, underdeveloped, or even absent infrastructure. Countries are poor partly because markets do not work well and partly because of information problems. Isolated and poorly informed farmers, traders and business people cannot participate in commercial exchanges and even when they tend to have limited bargaining power (Jensen, 2007).

2.3.1 Socio demographic factors

Akanda and Roknuzzaman (2012) stated that the education level of most of the farmers or producers of agricultural products is not satisfactory. High rate of illiteracy, lack of financial support, inadequate transport facility, lack of rural electrification and ignorance of government responsibility etc. have caused problems in accessing agricultural information properly.

The study of Mondol (2010) reveals that productive farmers of Bangladesh mainly belong to small and marginal categories. These farmers do not have either Farmer's Association or Farmer's Co-operative to bargain for fair prices of their products. They are thus forced to sell their products at a low price to intermediaries.

2.3.2 Factors affecting agricultural products marketing

According to Abdullah and Hossain (2013), farmers do not get proper price for their products due to improper marketing system of agricultural products. There are many intermediaries in the market who take the major portion of the benefits. Those intermediaries create artificial shortage of supply which also forces the consumers to pay more. Farmers are bound to sell their products to the intermediaries at lower price just after harvest. A producer organization or growers' cooperative can be established to reduce the plethora of intermediaries from the supply chain of agricultural products. The establishment of cooperative ensuring the participation of local farmers and ensure fair price for the growers and consumers with the direct marketing system.

According to Sultana (2012), agricultural marketing involves moving from an agricultural product of the farm to the consumer. Large number inter-connected activities are: planning, production, growing and harvesting, grading, packaging, transport, storage distribution and sale.

Bayes and Hossain (2007) showed the vulnerability of the small and marginal farmers of Bangladesh. Their vulnerability forces them to sell their product at a very low price in the market. There is a negative relationship between the size of farm and distress sale. It has been seen that within a month after the harvest, small farmers have to take two-third of their products to the market for sale. For small, medium and large farms it is 59%, 40% and 27% respectively. It proves that small farmers are forced to sell their product in the market after the harvest to meet their necessary requirements rather than to get profit from the selling.

Akridge *et al.* (2002) suggested that the set of decisions agribusiness managers make as part of the strategic marketing planning process may be among the most fundamental choices facing an agribusiness firm. Decisions about what markets to pursue and what position to take in these markets drive much of the rest of the firm's business activities.

Agricultural marketing is an essential tool to uninterrupted, adequate and timely supply of agricultural products, inputs and services to target groups, including producers, consumers and intermediaries and agricultural marketing is not just a means of distributing agricultural product but also a way of stimulating new forms of production (Abbott, 1987).

2.3.3 Constraints in agricultural products marketing

Sultana (2012) observed different studies on agricultural marketing of Bangladesh explores that farmers of this country are always deprived of fair price for their products due to plethora of middleman like *Beparis, farias, wholesalers, commission agents/aratdars, contractbuyers, cold storage operators, wholesaler-retailers, assembler-wholesalers, hawkers and retailers* and they also force the farmers to sell their products to them by tying up some conditions.

McCole *et al.* (2010) stated that 'fears' surrounding the internet as a place to do business still hinder the use of it for e-commerce purposes, but that the presence of a reputable agent might in some manner mitigate this risk. In the context of business to consumer relationships trust in the vendor is important for the consumer to accept any risk associated with a transaction.

Nyangosi *et al.* (2009) argued that banking through electronic channels has gained increasing popularity in recent years. This system, popularly known as 'e-banking', provides alternatives for faster delivery of banking services to a wide range of customers. From the aforesaid literature review, it is evident that on line banking can act as a complementary towards e-business. With the help of e-business the country can create opportunities as this will help both producers and customers.

Shamsuddoha (2008) argued that in Bangladesh, banking industry is mature to a great extent than earlier period. It has developed superb image in their various activities including electronic banking. Now modern banking services have launched by some multinationals and new local private commercial banks. Electronic banking is one of the most demanded and latest technologies in banking sector.

According to Chiang *et al.* (2003), convenience and product type influence consumer intention to engage in online shopping. When consumers perceive offline shopping as inconvenient, their intention to shop online is greater. Also, online shopping intention is higher when consumers perceive the product to be search goods than experience goods. If the performance match the customer's expectation, they are satisfied and if, performance exceeds the customer's expectation then customers are highly satisfied or delighted. The drivers of customer satisfaction are perceived value, company image, customer expectation, product quality and service quality. At present, Bangladesh's agricultural marketing system is often accused in the popular press of being inefficient. In the case of vegetables, *araddars and beparis* have been found to be critical players in the market. Their margin was between 17-18% of the retail value and their return on working capital was found to be exceptionally high, although it is possible that the

high margins are due to high marketing costs, which are in turn due, for example, to poor infrastructure. Thus to create an open market such as online shop quality and price should be controlled due to high competitions among the sellers.

Gefen *et al.* (2003) also found that institution-based structural assurances (e.g. web-seals) had a positive and significant impact on vendor trust. In business to consumer electronic commerce there is unequivocal evidence to suggest that trust is important in facilitating electronic transactions.

According to Verhaegen *et al.* (2001), the price of agricultural products is will be double after adding the delivery cost. However, co-operation among farmers decreases transportation costs and that collective initiatives enable farmers to enter the pathway of quality food production without investing excessive labor or capital.

Hobbs (1997) categorized transaction costs as comprising: 1) information costs or those costs incurred in determining the availability, attributes, and price of good or service, also known as search costs; 2) negotiation or bargaining costs or costs incurred in coming to an acceptable agreement with a trading party; and 3) the monitoring or enforcement costs incurred in ensuring the terms of the transaction are respected and providing recourse to appropriate action when they are not.

2.3.4 Attitude towards adopting E-shop for marketing agri-products

Habib and Shah (2014) stated that efficient commodity markets have favorable functional impacts on primary producers, exports, imports, government revenue and other enterprises. In a number of economies, organized agricultural marketing systems, known as agricultural commodity exchanges, have efficiently linked farmers and

agricultural producers with consumers at home and abroad. Commodity exchanges are helpful to discover efficient price systems and resolve contractual disputes thus offering a fast and low cost mechanism. For sound operation of a commodity exchange, it is important that the government plays proper role in matters of policy and regulations. Specifically, a well-functioning warehouse receipts system is to be installed to offer finances to the farmers. A long term plan would entail establishment of a mechanism for consultation and coordination among different government agencies, central bank, farmers' associations, financial institutions and civil society organizations.

According to Islam (2011), farmers in developing countries more informed about market opportunities are generally considered an important step toward development of the agricultural sector and increasing individual farmers' income. Mobile phones are a useful technology for delivering such information. The results of survey ($n = 420$) to farmers in rural Bangladesh demonstrated that mobile access is very high, to a large extent through community use. Neither education nor income is a determining factor, but "modernity" being young and/or having children. Even the very poor have access. Attitudes are very positive not just to the phones, but also to using them for professional information services. Hence, human capacity for development is there, as is technology.

Like other developing countries, Bangladesh was late in introducing Internet technology. The Internet came in Bangladesh through UUCP (Unix-to-Unix copy) email connectivity in 1993 by Pradesta Ltd. and IP (Internet Protocol) connectivity in 1996 (Rahman, 2002).

2.4 Conceptual framework of the research

The study has been developed the following conceptual framework based on the past studies which has given the emphasis on consumers and producers perspective. The E-shop for agricultural products is necessary to focus on some major determinants of market structure. The figure (Fig: 2.1) shows basic conceptual framework of the research.

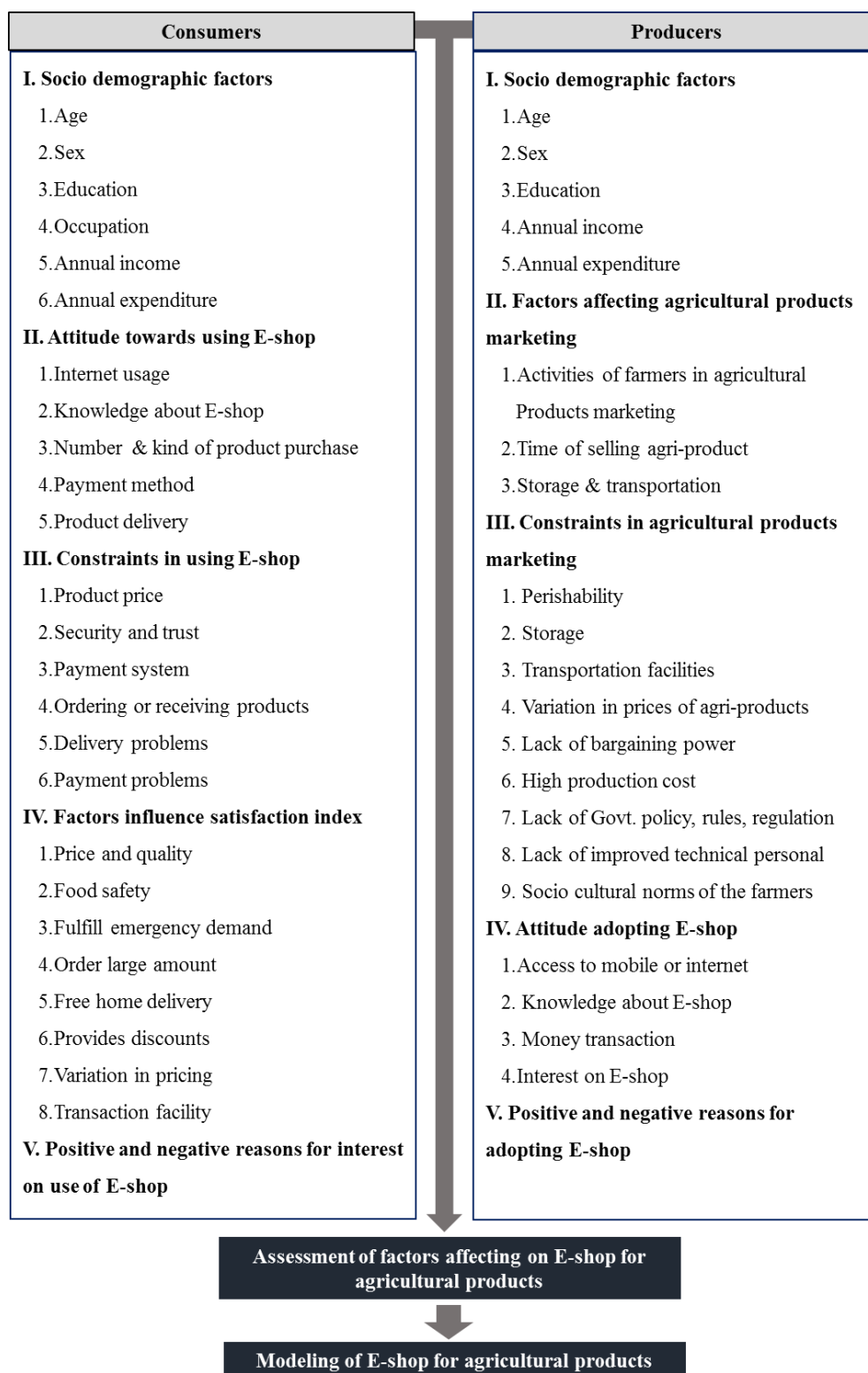


Figure 2.1: Conceptual frame work of the research

CHAPTER III

MATERIALS AND METHODS

Methodology is very important in any research. The basic materials for conducting any research are the unbiased information and facts. The purpose of this chapter is to describe the study area, research design and sampling procedures.

3.1 Research philosophy

The research philosophy depends on the way that researcher think about the development of knowledge. This seems rather profound and not something to which researcher normally give much thought. Yet the way the researcher think the development of knowledge affects the way researcher goes doing research. Three views about the research project dominate the literature: Positivism, Interpretive and Realism. All three have an important part to play in business and management research. This research will be conducted with a positivistic approach, since the study to interfere with the collected data as little as possible.

3.2 Research purpose

The purpose of this research is to find out answers of specific questions such as what is the relationship between the characteristics of respondents and implementation-use of E-shop for agricultural products. In this research work major emphasis is given to investigate the factors influencing the implementation and use of E-shop for agricultural products. Further this research is also concentrated to identify the constraints faced by farmers in marketing agricultural products, present situation and

constraints related with E-shop and attitude of farmers and consumer in using E-shop for agricultural products in Bangladesh. In addition, the study is also focused on the internet using facility and socio economic condition of the respondents. The findings of this research work will be outlined as implications for E-shop popularity on the basis of use and give a future model of E-shop for agricultural products in Bangladesh.

3.3 Research approach

There are two most commonly used research approaches, the inductive and the deductive method. The inductive research method attempts to set up a theory by using collected data, while the deductive research approach attempts to find the theory first and then test it to the observed data. It is a deductive research approach as the study would move from the more general to the specific. The study has presented the theoretical findings E-business and E-shop in Bangladesh after which it prepared questionnaire.

3.4 Research strategy

This research work is based on the survey on general farmers and consumers. Surveys enable the researcher to obtain data about practices, situations or views at one point in time through questionnaires or interviews. Quantitative analytical techniques are then used to draw inferences from this data regarding existing relationships. The use of surveys permit a researcher to study more variables at one time than is typically possible in laboratory or field experiments, whilst data can be collected about real world environments. A key weakness is that it is very difficult to realize insights relating to the causes of or processes involved in the phenomena measured. There are,

in addition, several sources of bias such as the possibly self-selecting nature of respondents, the point in time when the survey is conducted and in the researcher herself through the design of the survey itself.

3.5 Sources of data

The study is based on primary and also secondary sources. As such the study has reviewed different published articles, books, newspaper, and websites. However, exact references are mentioned in these articles. A survey on a set of field level primary data collected from the selected respondents through interview schedule by researcher herself preparing the interview schedule/questionnaire. For collecting data from the respondents, the study used snowballing sampling technique which is also known as a chain referral sampling type. All possible efforts were be made to explain the purpose of the study to the respondents in order to get valid and relevant information from them.

3.6 Study area

Selection of the study area is an important step in a research and it largely depends on the objectives of the study. Keeping in mind the objectives, two villages from Thakurgaon district were selected to collect the information of farmers (sellers). In addition, information were collected from Thakurgaon district to know about rural consumers' response and two important area in Dhaka city such as Dhanmondi and Mohammadpur area for urban consumers' response. The study areas of this study are presented in figure 3.1. These areas were selected purposively which were nearby to the researchers home district and university.

The main criteria behind the selection of two villages and towns in Thakurgaon were as follows,

a) Thakurgaon is one of the major agricultural productive districts of Bangladesh. The peoples are directly or indirectly involved with agriculture and agricultural production runs the economy of this people.

b) Thakurgaon is located in far distance from Dhaka and one of the remote districts. If it is possible to introduce a new marketing channel for a remote district like Thakurgaon, it should be easily applicable for other districts of Bangladesh.

The main criteria behind the selection of two areas in Dhaka city were as follows,

a) Dhanmondi and Mohammadpur are two important residential areas in Dhaka city.

b) The economic condition of most of the peoples in this area are middle class. Therefore, the thought of peoples might represent the attitude about E-shop for the people of whole country.

c) Well-developed communication and access of many people in the same place.

d) No study was conducted on agricultural products E-shopping in the selected area.

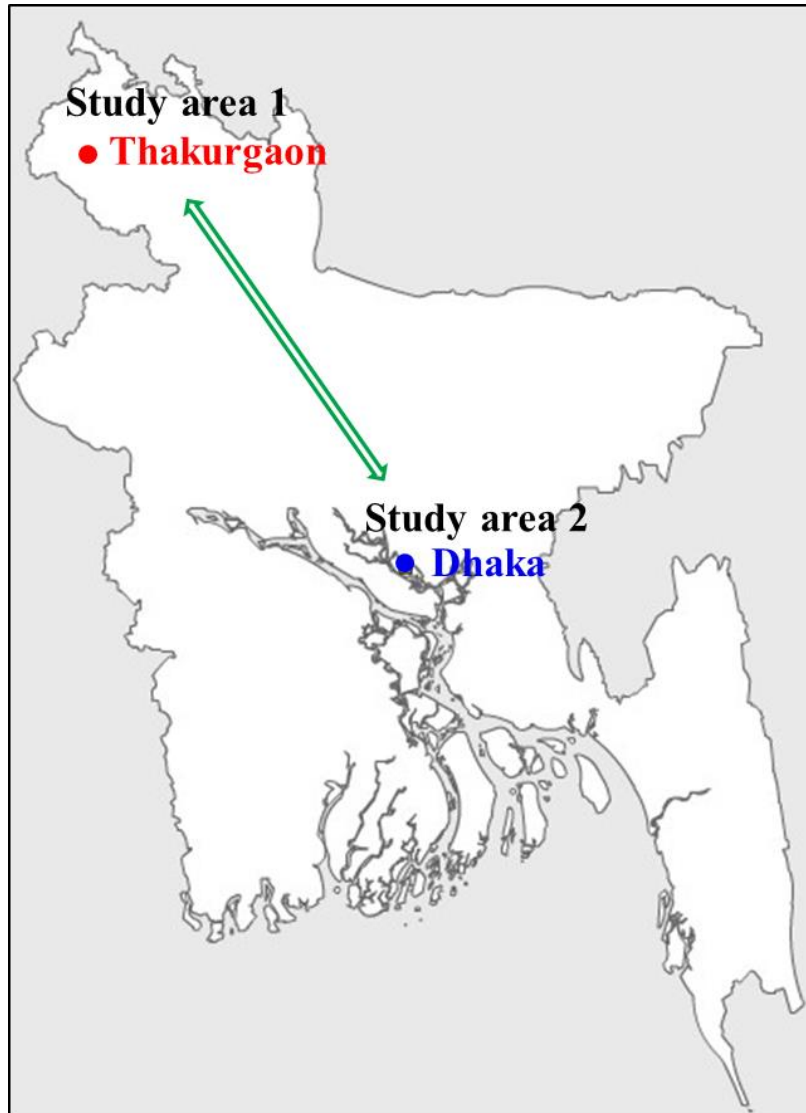


Figure 3.1: Location of study area 1 Thakurgaon and study area 2 Dhaka

3.7 Sample size and sampling procedure

Sampling technique is an important part of the survey and sample is very important for any research. In the present study, two questionnaires were prepared. The first questionnaire was prepared to collect data from farmers to understand the present agricultural marketing system, constraints and their attitude towards adopting E-shop. The second questionnaire was prepared to understand the consumers' opinion about using E-shop such as whether they were satisfied or not with service of E-shop, the constraints related with use of E-shop and their attitude towards using E-shop for purchasing agricultural products. The questionnaires were pre-tested with short survey and edited carefully based on the response of the respondents.

For final sample collection, a random sampling method was followed. For the convenience of the research, a few number of respondents were selected randomly which were be the representative of the whole population (Table 3.1). The total sample size was 120 by using simple random sampling. A list of 60 farmers from two villages of Thakurgaon district was prepared for farmers' information. For collecting consumers' information, 30 respondents were selected from rural area (Thakurgaon Sadar) and rest of the 30 respondents from Dhaka city.

Table 3.1: Distribution of respondents based on their location

Name of the study area	No. of respondents
Farmers information	
Araji Chilarang (Thakurgoan)	30
Akhanagar (Thakurgoan)	30
Consumers information	
Thakurgoan Sadar (rural respondents)	30
Dhanmondi and Mohammadpur, Dhaka (urban respondents)	30
Total	120

3.8 The research instrument

Two structured interview schedules were used as data gathering instrument in keeping the objectives of the study in mind. The schedule was prepared in Bengali for clear understanding of the respondents. The constraints with selling agricultural products related questions were put on the questionnaire to collect information from farmers. Consumer satisfaction for E-shop of agricultural products related questions were put in another questionnaire. Influencing factors affecting the implementation and use of E-shop for agricultural products related questions were included in the schedule. The questionnaire was pretested in actual field situations before using the same for final data collection among the respondents. Necessary corrections and additions were made in the interview schedule on the basis of results of pretest. English version of interview schedule has been shown in Appendix-I and II.

3.9 Data collection

Data for the study were collected by the face to face interview method. The researcher herself collected data from respondents by using the interview schedule. Data were collected during the period from October- November, 2014. Most of the respondents did not have any prior experience about E-shop. Therefore, the researcher discussed and explained the objectives of the present study with the respondents so that they did not feel any hesitation at the time of interview. However, if any respondent failed to understand any question, the researcher took necessary care to explain the issue as far as possible. Most of the respondents tried to hide the income and tendency to tell lie about the income. After completion of the interview, it was rechecked carefully for any corrections before leaving the study place and editing was done in case of necessity.

3.10 Method of data analysis

After data collection, data was checked carefully to ensure correctness and relevancy of data. Subsequently data was entered into the computer. Data obtained from questionnaire interviews were coded where appropriate, entered into a database system using Microsoft Excel, and analyzed using IBM SPSS Statistics 19.0 (Statistical Program for Social Studies) software. Interpretation, discussions of findings was presented in simple terms and finally all were arranged and compiled in the form of the thesis. To meet particular research objectives, several analytical methods were undertaken in the present study. This technique is intensively used for its inherent quality of purporting the true picture of the sociological aspects in the simplest form. Relatively simple statistical techniques such as Descriptive statistics

(percentage, range, arithmetic mean or average, standard deviation) was taken to analyze data and to describe socio-economic characteristics of respondents, producers and consumers attitude towards E-shop, constraints of agricultural products marketing, consumers satisfaction, etc. In this study, factor analysis was conducted to examine or assess the influencing factors affecting to develop a model of E-shop for agricultural products as statistical technique using SPSS software and Microsoft Excel.

3.11 Measurement of annual savings of farmers and consumers

3.11.1 Annual income

Annual income of a respondent was measured on the basis of total yearly earning from agriculture and other sources (service, business, daily labor etc.) by the respondent himself and other family members. The value of all the agricultural products encompassing crops, livestock, fisheries, fruits, vegetables etc. were taken into consideration.

3.11.2 Annual savings

Annual savings of a respondent was measured on the basis of following formula-

Annual savings= Annual income - annual expenditure

3.12 Analysis of the attitude of the respondents

Both qualitative and quantitative data were analyzed and interpreted to obtain the results. The attitude and response of farmers and consumers, reasons for adopting and not adopting E-shop, activities of the agricultural products marketing, the constraints

Where μ_i is mean of X_i , ε_i is error or specific factor. The coefficient l_{ij} is the loading of i -th variable on the j -th factor. In matrix notation the factor analysis model can be expressed as

$$X - \mu = LF + \varepsilon \text{ ----- (2.2)}$$

Where $l_{n \times m}$ is the matrix of factor loadings.

Several methods are available in literature to estimate factor loadings and factor scores. The study considers principal component method to estimate the factor loadings and communalities [$h_i^2 = \sum l_{ij}^2$], a measure of the variation of observed variables through factors. 'Varimax', factor rotation is adopted to find estimate of factor loadings.

CHAPTER IV

ATTITUDE OF FARMERS' TOWARDS E-SHOP

4.1 Socio demographic variables

Sustainable livelihood and economic empowerment of small and marginal farmers have been a challenge from last few decades. Gradually, land acquisition for non-agricultural purpose and distribution within the farmers, growing number of marginal farmer where economic viability of farming is a big challenge. It has also been reported that many farmers willing to quite farming. The emerging market for agricultural products worldwide led many farmers of different country to adopt new marketing system. However, in Bangladesh, the socio demographic conditions of farmers are different from other countries. But, it has also been promoted that use of improved marketing channel is a sustainable practice to empower farmers and upgrade their socio-economic condition which is depend on their productivity and profitability. A good understanding of farmers' characteristics such as age, sex, level of education and economic status would help to determine factors influencing their decisions to adopt new improved marketing channel for selling agricultural products.

4.1.1 Age

The age of the farmers were ranged from 19 to 55 with mean 42.30 and standard deviation 12.50. On the basis of their age, the farmers were classified into three categories as shown in Table 4.1.1.

Table 4.1.1: Age of the farmers

Age group (years)	No. of respondents	Percentage	Mean	Std. dev
Young aged (below 30 years)	14	23.30	42.30	12.50
Middle aged (31- 45)	26	43.30		
Old aged (above 45 years)	20	33.30		

Field survey, 2014

The analysis on this demographic characteristics highlighted that (Table 4.1.1) the maximum number of farmers (43.30 %) were middle aged (31-45 years), while 33.30 percent of them were old aged (above 45 years) and 23.30 percent farmers were young aged. This observation indicates that most of the farmers on this study were middle and old aged.

4.1.2 Farmers distribution by sex

Most of the farmers in this study were male (86.70%) while only a few household female farmers (13.30%) were also provide their information (Table 4.1.2).

Table 4.1.2: Distribution of the farmers according to their sex

Sex of the respondents	No. of respondents	Percentage
Male	52	86.70
Female	8	13.30

Field survey, 2014

4.1.3 Level of education

The score for level of education of farmers ranged from 0 to 18 years of schooling with the average of 6.03 and standard deviation 4.69. Based on their score, the farmers were classified into five categories as shown in Table 4.1.3. The data indicated that the highest proportion of farmers had higher secondary education (36.70 %) while 28.30 percent farmers were illiterate, 20 percent received primary education and 8.30 percent farmer had the ability to sign only. The lowest proportion of farmers, only 6.70 percent had completed the graduation.

Table 4.1.3: Distribution of the farmers based on their level of education

Level of education	No. of respondents	Percentage	Mean	Std. dev
Illiterate	17	28.30	6.03	4.69
Can sign only	5	8.30		
Primary education	12	20.00		
Higher secondary education	22	36.70		
Graduation to above	4	6.70		

Field survey, 2014

The results of the present study suggest that a high proportion of the farmers are illiterate. Few of them got only primary and higher secondary education while it is hard to find a farmer with graduate level education. Hence, it is expected that education is one of the important factors in determination of adoption of the new marketing channel such as E-shop for selling their products.

Akanda and Roknuzzaman (2012) stated that the education level of most of the farmers or producers of agricultural products were not satisfactory. High rate of illiteracy caused problems in accessing agricultural information properly.

4.1.4 Economic status

The economic status of the farmers was described on the basis of their annual income, income source, annual expenditure, pattern of expenditure and annual savings.

4.1.4 (a) Annual income

The farmers were classified in three categories on the basis of their annual income which were compared with rural income is Tk. 86000 in Household Income and Expenditure Survey (HIES) 2010 (approx). The assumption was made the strategy perceptual as shown in Table 4.1.4 (a). The data indicated that the annual income most of the farmers were middle (41.70 %) while 36.70 percent had low income. Only a few of them had high annual income (21.70 %).

Table 4.1.4 (a): Annual income of the farmers

Annual income	No. of respondent	Percentage
Low income (less than equal Tk. 84,000)	22	36.70
Middle income (Tk. 84,001-180,000)	25	41.70
High income (Above Tk. 180,000)	13	21.70

Field survey, 2014

4.1.4 (b) Income source

The farmers of the study area depend on different income generation activities those are presented in Table 4.1.4 (b). According to the response of the farmers, income sources were divided into three different categories. The farmers received maximum income (69.19 %) from agricultural sources while 23.48 percent of their income received from non-agricultural sources. Only a few income (7.33 %) they received from livestock and fisheries.

Table 4.1.4(b): Different income sources of farmers

Income sources	Average income (Tk)	Percentage	Std. dev.
Agriculture	129136.50	69.19	319470.24
Livestock and fisheries	13675.58	7.33	21318.41
Non-agricultural source	43816.67	23.48	51493.01

Field survey, 2014

4.1.4 (c) Annual expenditure

The farmers were classified in three categories on the basis of their annual expenditure which is similar to the basis annual income categorization as shown in Table 4.1.4 (c). The data indicated that the annual expenditure of most of the farmers (41.70 %) were less than 84,000 taka while 36.70 percent farmers had medium expenditure. Only a few of them had high annual expenditure (21.70 %).

Table 4.1.4 (c): Annual expenditure

Annual expenditure	No. of respondents	Percentage
Low expenditure (up to 84,000)	25	41.70
Medium (84,001-180,000)	22	36.70
High (above tk. 180,000)	13	21.70

Field survey, 2014

4.1.4 (d) Pattern of expenditure

The expenditure patterns of the farmers in the study area are presented in Table 4.1.4 (d). According to the response of the farmers, expenditure sources were divided into six different categories. The farmers spend more than half of their total expenditure in their farm for production (56.49 %) while 31.79 percent spend for their food. Only a few amount of money they spend for cloth (3.69 %), health (3.07 %), education (3.68 %) and others (1.01 %).

Table 4.1.4 (d): Farmers annual expenditure pattern

Expenditure pattern	Average expenditure (Tk.)	Percentage	Std. dev
Production	98438.33	56.49	306319.14
Food	55396.67	31.79	42839.97
Cloth	6904.17	3.69	4708.34
Health	5358.33	3.07	9568.77
Education	6410.00	3.68	14426.92
Others	1760.83	1.01	6081.64

Field survey, 2014

4.1.4 (e) Annual savings

The annual savings of the farmers were calculated based on their annual income and expenditure and presented in table 4.1.4 (e). The results of annual saving were classified in three categories based on their financial condition. Almost half of the farmers in the study area (48.30 %) lend money for daily living cost of their family and farming. There was around 45 percent farmers can save some money. Only a few number of farmers (6.70 %) had high amount of annual savings.

Table 4.1.4 (e): Annual saving lending features of the farmers

Annual income	No. of respondent	Percentage
Lending money (up to 150,000)	29	48.30
Low savings (up to 150,000)	27	45.00
High savings (151,000 to above)	4	6.70

Field survey, 2014

Higher annual income of the farmers allow them to invest more in farming operations this ultimately leads them to come in contact with media. Therefore, it can be inferred that the more the annual income possessed by the respondent, the higher would be favorable extent of use of modern technology.

The results of the present study showed that most of the farmers had low and medium income with low and medium expenditure. The major portion of their income came from agricultural sources. They spend more than half of their income in farming and only a limited amount of money for their daily expenses. In the economic analysis of

farmers, the high standard deviation reveals that there exists high variation in both income and expenditure among the farmers. Every year, around half of the total farmers in the study area, lend money from several authorized and non-authorized sources. Therefore, they bound to sell their products quickly after harvest without thinking about benefit and loss.

The economic status of the farmers were not satisfactory and found lacking in financial support for them (Akanda and Roknuzzaman, 2012). The study of Mondol (2010) was revealed that productive farmers of Bangladesh mainly belong to small and marginal categories. These farmers do not have either Farmers' Association or Farmers' Co-operative to bargain for fair prices of their products. They are thus forced to sell their products at a low price to intermediaries.

4.2 Factors affecting agricultural products marketing

Marketing plays an important role not only in stimulating production but also in accelerating the pace of economic development. Efficient marketing system usually ensures higher level of producer's share, reducing the number of middlemen and restricting the marketing charges, malpractices during marketing of farm products. It is, therefore, essential to explore the efficient marketing channels and to suggest the producers the channels for obtaining optimum prices of their farm produce. In this part of the present study, factors that affect agricultural marketing system were investigated.

4.2.1 Farmers' activity in agricultural products marketing

Several activities involved in agricultural products marketing (Table 4.2.1) which are classified in nine different categories. Most of the farmers were involved in selling of their farm products (86.67 %) while 61.67 and 58.33 percent were involved with growing and harvesting of their products. Only few farmers were involved with the planning of production and different marketing related activities.

Table 4.2.1: Activities of farmers' in agricultural products marketing

Activities of farmers	No. of respondent	Percentage
Planning	3	5.00
Growing	37	61.67
Harvesting	35	58.33
Grading	5	8.33
Packaging	3	5.00
Transport	15	25.00
Storage	5	8.33
Distribution	3	5.00
Sale	52	86.67

Field survey, 2014

The results of the present study showed that, many farmers in the study area were not only involved with farming but also have other job to perform. Therefore, majority of them only present in the selling time of the products. More than half of the farmers are only involved in growing, harvesting and selling activities. They don't have a

characteristic role in the other activities related with agricultural product marketing. This indicated that middle man might have a controlling power on the marketing and distribution of the agricultural products.

Agricultural marketing is an essential tool to uninterrupted, adequate and timely supply of agricultural products, inputs and services to target groups (Abbott, 1987). The agricultural marketing involves moving from an agricultural product of the farm to the consumer. Large number inter-connected activities are: planning, production, growing and harvesting, grading, packaging, transport, storage distribution and sale. However, farmers can only perform in few activities directly in agricultural product marketing system (Sultana, 2012).

4.2.2 Selling time of farm products

Based on the time of selling of farm products, farmers are classified in three different categories. The maximum number of farmers were sold their farm products just after harvest (56.67 %) while 36.67 percent were sold their farm products during high price. A few farmers were sold their products few weeks after harvest (16.67 %).

Table 4.2.2: Time of selling farm products

Products selling time	No. of respondents	Percentage
Just after harvest	34	56.67
Few weeks after harvest	10	16.67
During high price	22	36.67

Field survey, 2014

The results of the present study showed that majority of the farmers sold their products just after harvest. This might be due to their economic insufficiency to meet the daily requirements of their family needs.

The farmers do not get proper price for their products due to improper marketing system of agricultural products. Farmers are bound to sell their products to the intermediaries at lower price just after harvest (Abdullah and Hossain, 2013). In another study, it was found that farmers were economically in vulnerable condition and their vulnerability forces them to sell their product at a very low price in the market. Within a month after the harvest, small farmers have to take two-third of their products to the market for sale. It proves that small farmers are forced to sell their product in the market after the harvest to meet their necessary requirements rather than to get profit from the selling (Bayes and Hossain, 2007).

4.2.3 Storage capacity

The storage facility of the farmers for their farm products is given in table 4.2.3. The majority of the farmers' had no storage facility (55.00 %) while 25 percent farmers' had adequate storage facility. Only a few farmers had the limited storage facility (20 %) for their farm products. In the present study, the majority of the farmers have no storage facility therefore they have to sell their products just after harvest to some middle man with low price.

Table 4.2.3: Storage capacity of farm products at household level

Storage facility	No. of respondents	Percentage
No storage	33	55.00
Limited storage	12	20.00
Adequate storage	15	25.00

Field survey, 2014

Inadequate storage facility for farm products is one of the major constraints in marketing of several crops such as potato. The storage facility of farm products is an indicator of the selling time and whether farmer will be able to get the high price or not from the market. Abdullah and Hossain (2013) showed that a very few number of farmers had storage and transportation facility. They also showed a close relationship between storage facility and selling time of farm products.

4.3 Constraints faced by farmers' in agricultural product marketing

The rank order of the constraints faced by farmers in agricultural product marketing is presented in Fig. 4.1. Eleven constraints were presented based on farmers' opinion. The possible ranges for each constraint were 60 to 300. The lowest value indicates the highest constraints whereas the highest value indicates less constraint faced by farmers in agricultural product marketing. The accumulated value of high production cost consist the lowest value 121 and rank in first position. Price variation (139) rank in second which was followed by perishability (159), low transport facility (163), low storage facility (167), lack of processing (168), lack of security and trust (168), no bargaining option (178), inadequate skilled personnel (181), lack of government policy, rules and regulation (188) and socio cultural norms (195).

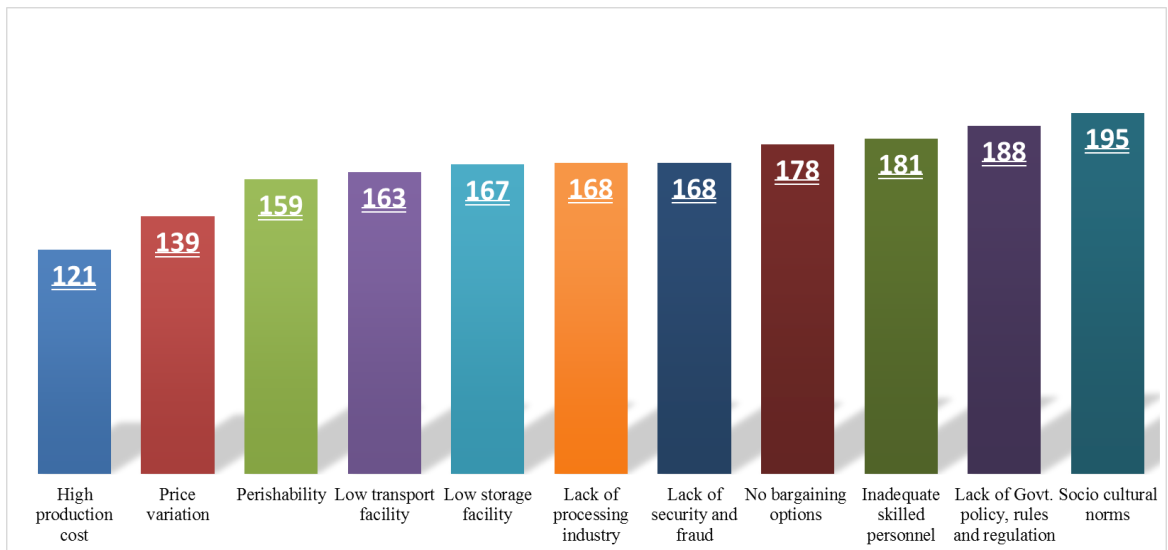


Figure 4.1: Constraints faced by farmers' in agricultural products marketing

Classifications of the constraints faced by farmers' in agricultural products marketing are given in Table 4.3. The total score of constraints given by each farmer ranged from 11 to 55. Based on farmers' response the score of constraints are classified in three different categories. Most of the farmers (50 %) in the study area were faced moderate constraints while 31.70 percent farmers faced high constraints. Only 18.30 percent farmers faced the normal constraints in agricultural product marketing. The results of the present study clearly indicated that agricultural products marketing were surrounded with several constraints.

Table 4.3: Constraints faced by farmers' in agricultural product marketing

Constraints faced by farmers' (score range 11 - 55)	Respondents	Percentage
Highly faced constraint (11 -25)	19	31.70
Moderately faced constraint (26 - 35)	30	50.00
Normally faced constraint (36 - 55)	11	18.30

Field survey, 2014

The results of the present study clearly indicated that agricultural products marketing were surrounded with several constraints. Habib and Shah (2014) stated that efficient commodity markets have favorable functional impacts on primary producers, exports, imports, government revenue and other enterprises. Different studies on agricultural marketing of Bangladesh explores that farmers of this country are always deprived of fair price for their products due to plethora of middleman like *Beparis, farias, wholesalers, commission agents/aratdars, contract buyers, cold storage operators, wholesaler-retailers, assembler-wholesalers, hawkers and retailers* and they also force the farmers to sell their products to them by tying up some conditions (Sultana, 2012).

4.4 Attitude of farmers towards E-shop

4.4.1 Farmers interest

The interest of farmers in adopting E-shop is given in Table 4.4. The responses of farmers are classified in six different categories. After giving a complete explanation

about E-shop to the farmers, most of the farmers (31 % strongly agree and 40 % agree) provide strong positive response in adopting a new marketing system E-shop. Only a minor portion of farmers in the study area had no response (11.70 %). The number of farmers who disagree (6.70 %) and strongly disagree (6.70 %) in adopting E-shop were limited.

Table 4.4.1: Attitude of farmers towards adopting E-shop

Attitude towards adopting E-shop	No. of respondents	Percentage
Strongly agree	19	31.70
Agree	24	40.00
Neutral	7	11.70
Disagree	4	6.70
Strongly disagree	4	6.70
No answer	2	3.30

Field survey, 2014

4.4.2 Reasons for farmers interest in E-shop

The rank order of reasons why farmers interested in adopting E-shop are presented in Fig. 4.2. Six different kinds of reasons were selected and possible range 60 to 300. The lowest value indicates the most important reason whereas the highest value indicates less important reason in adoption of E-shop. In the figure (4.2) fair price of the farm products consists the lowest value 108 and ranked in first position. This was the most important reason for adopting E-shop by farmers. Direct link between buyer and seller (127) ranked in second position which was followed by saving time (131),

direct marketing system for SME (155), less involvement of intermediaries (163) and others (174).

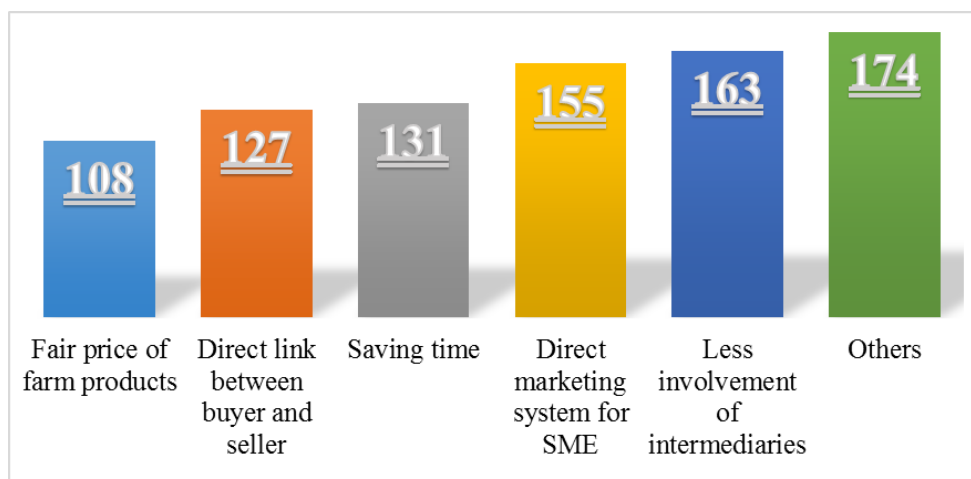


Figure 4.2: Reasons for farmers' interest in E-shop

4.4.3 Items to be improved (farmers' thought)

The rank order of the demotivated reasons which has to be improved for implementing E-shop based on farmers' thought are presented in Fig. 4.3. Six different kinds of reasons were found based on farmer's opinion about implementing E-shop. The possible ranges 60 to 300 for each reason were selected. The lowest value indicates the most important reason whereas the highest value indicates less important reason in adoption of E-shop. The lack of security and trust on E-shop consists the lowest value 112 and ranked in first position. Inadequate knowledge about E-shop (125) rank in second which was followed by perishable farm products (138), delivery time and cost (155), complicated marketing system (160), difficult method to receive money for selling products (173) and others (176).

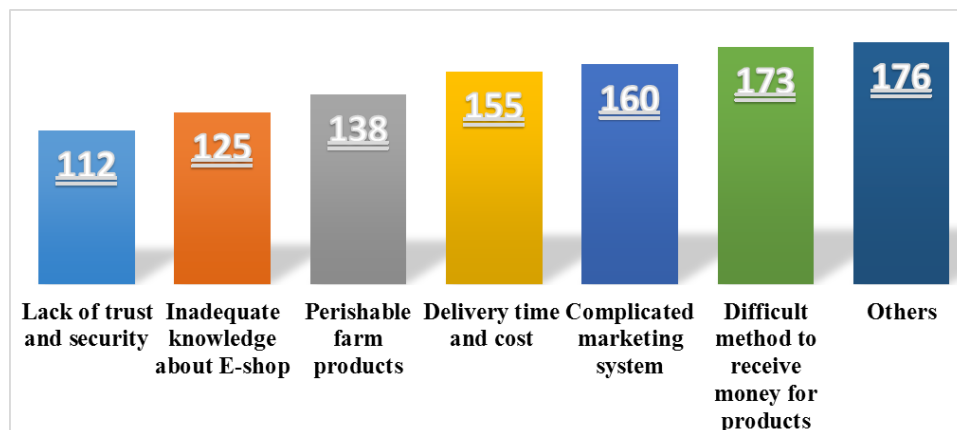


Figure 4.3: Improving factors for implementing E-shop

4.4.4 Important questions for implementing E-shop

Some general information essential for modeling of E-shop were collected from the farmers with simple yes/no question to understand their present involvement in using technology in their daily life. The results have been presented in table 4.4.4 which showed that a limited number of farmers (25 %) thought that lack of education will affect implementing E-shop. Most of them (81.67 %) were using mobile phone but only a few farmers (15 %) used internet. However, around half of the total numbers of farmers (53.33 %) were interested in learning to use internet and open a bank account. Over half the total farmers 56.67 percent were agree to use bank for transacting money and 38.33 percent were interested to use post office for sending their farm products.

Table 4.4.4: Question related with implementing E-shop

Question	Yes	Percentage	No comments
Does lack of education affect a new strategy like E-shop?	15	25.00	2
Do you have mobile phone?	49	81.67	2
Do you ever use internet?	9	15.00	2
Are you interested to learn about using internet?	32	53.33	2
Do you have an account in bank?	32	53.33	2
Are you interested to transact money through bank?	34	56.67	2
Are you transacts anything by post office or currier in your area?	23	38.33	5

Field survey, 2014

The results of the present study showed that most of the farmers in the study area were interested in adopting a new marketing channel E-shop. The main reason for the interest in adopting E-shop was to receive the fair price of the farm products. In addition, they also thought that the direct link between farmer and producer might be effective in receiving proper value of their products. However, they also suggested that the security and trust is one of the major lacking which should be improved in implementing E-shop. The inadequate knowledge about E-shop make it difficult for farmers therefore, some training program should be arranged.

The uses of internet in Bangladesh have increasing like many developing and developed countries. In 2013, internet users in Bangladesh increased to 33 million (Azad, 2013). In the present study area, most of the farmers use mobile phone but

internet access is very limited among them. However, they are also interested to open bank account, want to learn the use of internet to get the access of E-shop. Major portion of them thought that lack of education might not a limiting factor in adopting the E-shop.

CHAPTER V

ATTITUDE OF CONSUMERS' TOWARDS E-SHOP

5.1 Socio demographic variables

The E-business has changed the ways of organizations in performing their activities (Swatman, 1996). Internet provides new type of opportunities, if it is possible to develop an effective marketing mix system (Wilson, 2002). In the previous research on E-shopping, it was found that, socio demographic variables influence the use of E-shop. For example, young people are the major customer in E-shop, which indicated that the age of the customer might be important in using E-shop (Swinyard and Smith, 2003). In another study, it was found that, most of the E-shop users were male and numbers of online consumers completed their graduation and prefer to make their purchases online (Kasem and Shamima, 2014). Parvin *et al.* (2007) mentioned that environmental context such as education, culture and other social aspects directly or indirectly mediate the online shopping behavior of customers. Kayuncu and Bhattacharya (2004) found that level of education and household income was positively related to E-shopping. Therefore, it was postulated that different socio demographic variables might have direct or indirect influence on acceptance and use of E-shop. In the present study, several socio demographic variables of the respondents from rural and urban area were assessed.

5.1.1 Age

In the rural area, the age of the consumers ranged from 19 to 55 with mean 40.63. By contrast, in urban area, the age of the consumers ranged from 19 to 55 with mean

30.97. On the basis of their age, the consumers were classified into three categories as shown in Table 5.1.1.

Table 5.1.1: Age of the respondents

Age (years)	Rural				Urban			
	No.	%	Mean	Std. dev	No.	%	Mean	Std. dev
Young (Less than equal 30)	7	23.30	40.63	11.59	17	56.70	30.97	6.50
Middle aged (31- 45)	14	46.70			13	43.30		
Old (More than 45 years)	9	30.00						

Field survey, 2014

The analysis on this demographic characteristics highlighted that (Table 5.1.1) in rural area, the maximum number of respondents (46.70 %) were middle aged (31-45 years), while 30 percent of them were old aged (above 45 years) and 23.30 percent respondents were young aged. Most of the respondents on this study were middle and old aged.

By contrast, in urban area, the maximum number of respondents (56.70 %) were young aged (less than 30 years), while rest of them 43.30 percent were in medium aged category (31- 45). There were no respondents from urban area who were in old

aged category. This observation indicated that most of the respondents from urban area were in young and middle aged category.

5.1.2 Distribution of respondents by sex

Respondents from rural and urban study area are distributed according to their sex in table 5.1.2.

In rural area, most of the respondents were male (73.30 %) while only a few household female respondents (26.70 %) were also provided their information. By contrast, in urban area, most of the respondents were female (60 %) while 40 percent were male.

Table 5.1.2: Distribution of the rural and urban respondents by sex

Sex of the respondents	Rural		Urban	
	No of respondents	Percentage (%)	No of respondents	Percentage (%)
Male	22	73.30	12	40.00
Female	8	26.70	18	60.00

Field survey, 2014

5.1.3 Level of education

The score for level of education of the respondents in rural and urban areas ranged from 0 to 18. In rural area, the average of 2.67 and standard deviation 1.45 whereas the mean and standard deviation from urban respondents were 4.37 and 1.71. Based

on their score, the respondents were classified into four categories as shown in Table 5.1.3.

In rural area, the highest proportion of respondents had higher secondary education (53.33 %) while 23.30 percent respondents were graduate, 13.30 had received above graduation. The lowest proportion of respondents, only 10 percent had no formal education.

By contrast, in urban area, the data indicate that the highest proportion of respondents had studied above graduation (53.30 %) while 30 percent respondents were graduate, 16.70 percent had finished less than H.S.C.

Table 5.1.3: Distribution of the rural and urban respondents by education level

Education level	Rural				Urban			
	No	%	Mean	Std. dev	No	%	Mean	Std. Dev
No formal education	3	10.00	2.67	1.45			4.37	1.71
Less than equal H.S.C	16	53.30			5	16.70		
Graduate	7	23.30			9	30.00		
Graduation to above	4	13.30			16	53.30		

Field survey, 2014

The combined results of rural and urban respondents on level of education indicated that the graduation and above graduation level education percentages are high among

urban respondents than rural respondents. The respondents live in rural area might provide major emphasis in receiving higher education.

5.1.4 Occupation of the respondents

The occupation of the respondents from rural and urban are were presented in table 5.1.4. The results showed that, in rural area, one single respondent had several occupations, most of the respondents (53.30 %) were in agriculture category while 50 percent were in business category. 23.30 percent were in service category and only a few 3.30 percent were in student category.

By contrast, in urban area, one single respondent had several occupations, most of the respondents (53.30 %) were in service category while 20 percent were in business category. 13.30 percent were in student category and also 13.30 percent were in others category.

Table 5.1.4: Distribution of the respondents by occupation

Occupation	Rural		Urban	
	No of the respondents	Percentages	No of the respondents	Percentages
Service	7	23.30	16	53.30
Business	15	50.00	6	20.00
Students	1	3.30	4	13.30
Agriculture	16	53.30		
Others			4	13.30

Field survey, 2014

The combined results of rural and urban respondents on their occupation indicated that most of the respondents in urban area have governmental and non-governmental job whereas rural respondents are mostly involved with business and agriculture.

5.1.5 Economic status

The economic statuses of the respondents were described on the basis of their annual income, annual expenditure and pattern of expenditure.

5.1.5 (a) Annual income of the respondents

The respondents of rural and urban area were classified in 3 categories on the basis of their annual income, as shown in Table 5.1.5 (a). According to Bangladesh pay scale of 2009, it is assumed that minimum income of the government employee 10,000 thousand per month who are the 4th graded employee. In rural area, the data indicated that the annual income of most of the respondents were medium (40 %) while 33.30 percent respondents had low income. Only a few number of respondents had high annual income (26.70 %).

By contrast, in urban area, the annual incomes of most of the respondents were high (46.70 %) while 33.30 percent had low income. Only a few of them had medium annual income (20 %).

Table 5.1.5 (a): Annual income of the respondents

Annual Income	Rural		Urban	
	No. of respondent	Percentage	No. of respondents	Percentage
Low income (less than equal Tk. 120,000)	10	33.30	10	33.30
Middle income (Tk. 120,001 – 300,000)	12	40.00	6	20.00
High income (Above Tk. 300,000)	8	26.70	14	46.70

Field survey, 2014

The combined results of rural and urban respondents on their annual income indicated that rural respondents have less income than urban respondents. This might have an influential role in acceptance and use of latest technology.

5.1.5 (b) Annual expenditure of the respondents

The respondents of rural and urban area were classified in 3 categories on the basis of their annual expenditure which is similar to the basis of annual income categorization, as shown in Table 5.1.5 (b). In rural area, the data indicated that the annual expenditure of most of the respondents (43.30 %) were medium while 40 percent of them had less expenditure. Only a few of them had high annual expenditure (21.70 %).

By contrast, 53.30 percent respondent of urban area had less expenditure while 33.30 percent had high expenditure. Only a few of them had medium expenditure 13.30 percent.

5.1.5 (b): Annual expenditure of the respondents

Annual Expenditure	Rural		Urban	
	No. of respondent	Percentage	No. of respondents	Percentage
Low (Less than equal Tk. 120,000)	12	40.00	16	53.30
Medium (Tk. 120,001 – 300,000)	13	43.30	4	13.30
High (Above Tk. 300,000)	5	16.70	10	33.30

Field survey, 2014

The combined results of rural and urban respondents on their annual expenditure indicated that urban respondents have high expenditure than rural respondents. These characteristics of urban respondents reflect the expensive daily life.

5.1.5 (c) Patterns of expenditure

The expenditure patterns of the respondents of rural and urban area are presented in Table 5.1.5 (c). According to the response of the respondents, expenditure patterns were divided into six different categories. In rural area, the respondents spend 36.08 percent of their income for others purpose that include mostly production cost while 35.95 percent spends for their food. Only a limited amount of money they spend for education (12.65 %), health (7.00 %), cloth (6.96 %) and housing shelter (1.35 %).

By contrast, in urban area, the respondents spend 49.78 percent of their income for food while 20.16 percent spend for housing. Only a limited amount of money they spend for cloth (13.17 %), education (4.96 %), health (2.43 %) and others (9.46 %).

Table 5.1.5 (c): Patterns of expenditure of the respondents

Expenditure patterns of respondents	Rural				Urban			
	Average Expenditure (Tk.)	%	Std. dev (Tk.)	Maximum (Tk.)	Average Expenditure (Tk.)	%	Std. dev (Tk.)	Maximum (Tk.)
Food	63533.33	35.95	54717.92	150000	103466.70	49.78	112890.50	432000
Cloth	12300	6.96	11453.50	45000	27383.33	13.17	16569.44	60000
Housing shelter	2383.33	1.35	5768.05	20000	41900	20.16	78845.27	240000
Education	22360	12.65	35397.04	144000	10383.33	4.96	26366.02	120000
Health	12370	7.00	25272.04	120000	5053.33	2.43	10797.31	60000
Others	63758.33	36.08	103121.4	400000	19666.67	9.46	35948.56	180000

Field survey, 2014

The combined results of rural and urban respondents on their patterns of expenditure indicated that urban respondents spend more money for house building and food whereas rural respondents spend more money in food and other purpose.

5.2 Consumers' movement towards E-shop

E-shop consumers buying behavior refers to the process of buy products or services by the Internet (Liang and Lai 2000). The relationships among attitude, intention, decision making and online purchasing are based on the relationship between beliefs, attitudes, intentions, and actual behavior. From the various research regarding E-shopping, it was found that E-shop consumers are wealthier, having high computer literacy, spending more time on their computers and internet, find online shopping much easier and entertaining (Swinyard and Smith, 2003).

Bangladesh is progressing in developing the internet and information communication technology. Kirkman et al. (2002) analyzed the world internet availability and infrastructural situation. In that research Bangladesh was ranked 73 in the world as commercial use of internet is limited. Therefore, to understand the attitude of consumers in E-shopping, it is necessary to understand the present condition of the internet availability and infrastructure.

5.2.1 Types of mobile phone of the respondents

The respondents of rural and urban area are classified in 3 categories on the basis of their types of mobile phone. In rural area, most of the respondents (60 %) had general phone while 33.30 percent had smart phone. Only few respondents 6.70 percent had no phone. By contrast, in urban area, majority of the respondents (80 %) had smart phone while only a few (20 %) had general phone.

Table 5.2.1: Types of phone of the respondents

Types of phone	Rural		Urban	
	No. of respondent	Percentage	No. of respondent	Percentage
No phone	2	6.70	0	0
General phone	18	60.00	6	20.00
Smart phone	10	33.30	24	80.00

Field survey, 2014

The combined results of rural and urban respondents on their types of mobile phone indicated that most of urban respondents have smart phone which can be easily use for internet access and purchasing products from E-shop.

5.2.2 Consumer response on internet usage and E-shop

Simple yes/no question were asked to the respondents of rural and urban area to understand the present condition of internet usage and knowledge on E-shop (Table 5.2.2). In rural area, 36.70 percent respondents were accessed internet and half of them (50 %) had knowledge on E-shop. By contrast, in urban area, 96.70 percent respondents had internet access and 93.30 percent of them were known about E-shop.

Table 5.2.2: Consumers' response on internet usage and knowledge about E-shop

Question	Rural		Urban	
	Yes	Percentage	Yes	Percentage
Access to internet	11	36.70	29	96.70
Knowledge on E-shop	15	50.00	28	93.30

Field survey, 2014

The combined results of rural and urban respondents on internet access and knowledge on E-shop indicated that the use of internet among urban respondents is higher than rural respondents. Therefore, the knowledge about E-shop is also higher among urban respondents. These results suggest that to increase the popularity and use of E-shop might be possible among urban respondents with limited efforts.

5.2.3 Purchase frequency and use of E-shop

Based on the use of E-shop, the responses of the respondents of rural and urban area were classified into four different categories. In rural area, 83.30 percent respondents had not purchased from E-shop while 13.30 percent gather information from E-shop but not purchased. Only few of them, 3.30 percent of respondents had purchased only 1-5 times.

By contrast, in urban area, 56.70 percent respondents gather information from E-shop but not purchased while 26.70 percent purchased 1-5 times from E-shop. 13.30 percent respondents had not purchased from E-shop. Only few of them, 3.30 percent of respondents purchased more than 5 times from E-shop.

Table 5.2.3: Purchase frequency and use of E-shop

Purchase frequency	Rural				Urban			
	No	%	Mean	Std. Dev	No	%	Mean	Std. Dev
No purchase	25	83.30	1.43	1.04	4	13.30	3.03	4.00
1-5	1	3.30			8	26.70		
More than 5					1	3.30		
Gather information but not purchase	4	13.30			17	56.70		

Field survey, 2014

The combined results of rural and urban respondents on purchase and use of E-shop indicated that majority of the rural respondents never purchased any items from E-shop whereas a small number of urban respondents purchase products from E-shop. However, more than half of the urban respondents gather information but not purchased from E-shop. These characteristics suggest that still now the respondents are more interested in buying products form traditional store but before buying, they check and compare the price and quality of products in E-shop within a very short time.

5.3 Constraints faced by consumers' in using E-shop

Several researchers demonstrated the constraints faced by consumers in using E-shop. The price and product variety and product quality strongly affect the customer expectation (Eskildsen and Kristensen, 2007). Lee *et al.* (2011) stated that the value added to the products may be frustrated the customers as it was very high compared to the prices in the super markets in Dhaka city. In the western countries, the value of online store is supposed to be more than the traditional store as they incurred delivery charges but in the context of Bangladesh the prices are very high without delivery charges (Shopping Navigator, 2011). In another study, it was suggested that the issues relating to electronic fund transfer require security, availability, authenticity, non-reputability and audibility (Rahman, 2001-2002). Many prime E-shop in Bangladesh received the order than delay for delivery the products to consumers and sometimes they do not deliver (Suhan, 2015). Therefore, it was found that E-shop was surrounded with several constraints which were necessary to understand. In the present study rank

order of constraints and the total value of constraints faced by each consumers' in using E-shop were investigated.

5.3.1 Rank order of constraints faced by consumers' in using E-shop

The rank order of the constraints faced by rural consumers in using E-shop is presented in Fig. 5.1. Six constraints were presented based on rural consumers' opinion. The possible ranges for each constraint were 30 to 150. The lowest value indicates the highest constraints whereas the highest value indicates less constraints faced by rural consumers in using E-shop. The accumulated value for lack of security and trust consisted the lowest value 61 and ranked in first position. Product price is higher in E-shop than traditional shop (80) rank in second who was followed by ordering and receiving wrong item (82), payment system (90), problems with online money transaction (91) and delivery in wrong place (93).

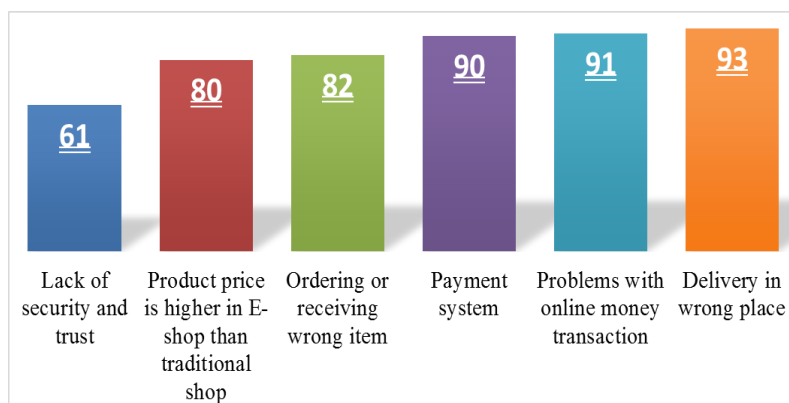


Figure 5.1: Constraints faced by rural consumers' in using E-shop

The rank order of the constraints faced by urban consumers in using E-shop is presented in Fig. 5.2. Six constraints were presented based on urban consumers' opinion. The possible ranges for each constraint were 30 to 150. The lowest value

indicates the highest constraints whereas the highest value indicates less constraint faced by rural consumers' in using E-shop. The accumulated value for product price is higher in E-shop than traditional shop consisted the lowest value 66 and ranked in first position. Lack of security and trust (68) rank in second who was followed by payment system (80), problems with online money transaction (88), ordering and receiving wrong item (91) and delivery in wrong place (113).

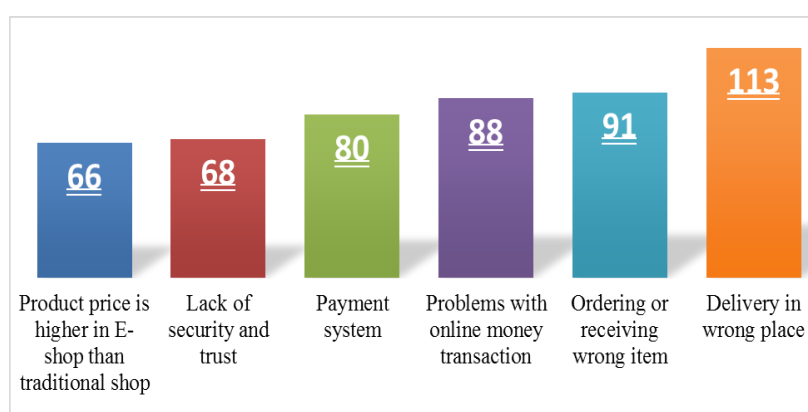


Figure 5.2: Constraints faced by urban consumers' in using E-shop

5.3.2 Constraints faced by consumers' in using E-shop

The total values of the constraints faced by the respondents of rural and urban area in using E-shop are given in Table 5.3. The total score of constraints given by a consumer ranged from 1 to 30. Based on the response of respondents, the score of constraints are classified in three different categories. In rural area, most of the respondents (66.7 %) faced moderate constraints in using E-shop while 26.7 percent respondents faced high constraints. Only 6.7 percent respondents faced the normal constraints.

By contrast, in urban area, most of the respondents (66.7 %) faced moderate constraints in using E-shop while 30 percent respondents faced high constraints. Only 3.3 percent respondents faced the normal constraints while in using E-shop.

Table 5.3: Constraints faced by consumers' in using E-shop

Constraints Score range (1 - 30)	Rural		Urban	
	Respondents	Percentage	Respondents	Percentage
Highly faced constraint (6 -14)	8	26.70	9	30.00
Moderately faced Constraint (15- 22)	20	66.70	20	66.70
Normally faced Constraint (23-30)	2	6.70	1	3.30

Field survey, 2014

The combined results of rural and urban respondents on constraints faced by consumers' in using E-shop indicated that almost similar kinds of constraints faced by rural and urban respondents in using E-shop. The most important point here is that most of the respondents face moderate or high constraints which should be minimized by taking some easy and effective measures.

5.4 Influencing factors related with respondent's satisfaction

Several facilitating conditions were significant for E-shopping such as site accessibility, reasonable web site loading speed, good product description, transaction efficiency and navigation efficiency (Limayem *et al.*, 2000). Alhassan (2011) demonstrated the positive effects of overall satisfaction with previous online

purchases and attitude toward online purchasing on repeat purchase intentions. In turn, attitude is positively determined by overall satisfaction and negatively by experience with online purchase problems, while overall satisfaction is determined positively by satisfaction with the following online retailers' performance dimensions: product prices, product quality, customer service, required payment methods, perceived payment security, and delivery time. Contrary to expectations, delivery cost is not significantly related to overall satisfaction. Neither does experience with online purchase problems. In the present study, several satisfaction factors were ranked based on consumer opinion to understand those factor was more useful for increasing the use of E-shop.

The rank orders of the influencing factors related with consumers' satisfaction why respondents were interested in using E-shop are presented in Fig. 5.3. Eight different kinds of satisfaction factors were selected and possible range 30 to 150 for each respondent. The lowest value indicates the most important satisfaction factor whereas the high value indicates weak satisfaction factor in using E-shop. In rural area fig 5.3 (i), fulfill the demand in the emergency consisted the lowest value 36 and ranked in first position. This was the most important reason for using E-shop by respondent. Home delivery (43) ranked in second position which was followed by variation in price (53), order large amount (56), transaction (57), provide discount (64), satisfied with price and quality (64) and safe food (65).

In urban area fig. 5.3 (ii), home delivery and variation in price consisted the lowest value (39) and rank in first position. Fulfill the demand in emergency (49) ranked in

second position which were followed by transaction (53), provided discount (67), order large amount (70), satisfied with price and quality (76) and safe food (83).

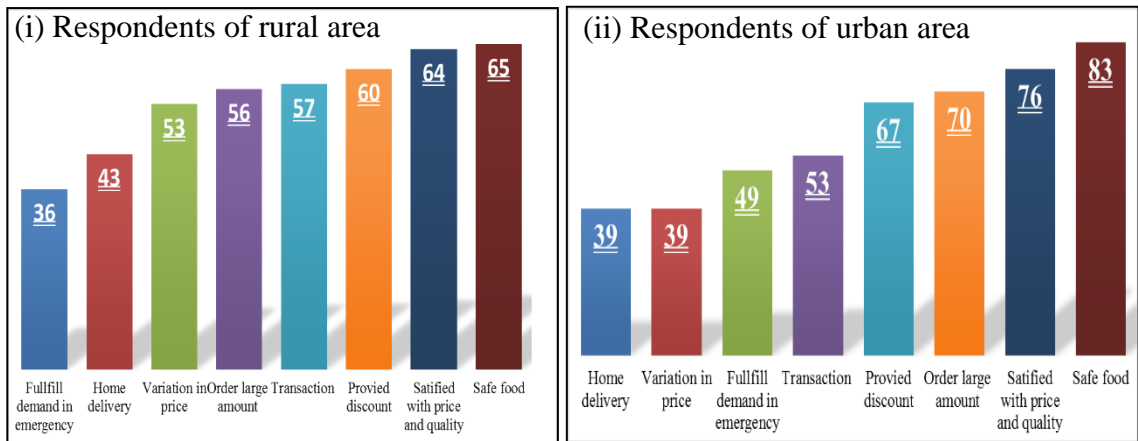


Figure 5.3: Influencing factors related with consumers' satisfaction

The combined results of rural and urban respondents on rank of satisfaction factors indicated that 'home delivery service' rank in second and in first position based on the rural and urban respondents. 'The full fill demand in emergency' placed in first and third position based on rural and urban respondents. 'Variation in price' ranks in third and second position based on the response of rural and urban respondents. Therefore, the results suggest that 'home delivery', 'variation in price' and 'full fill demand in emergency', these three satisfaction factors have the highest influence on increasing the use of E-shop.

5.5 Attitude of consumers' towards E-shop

There is a lots of difference between the E-shopping and traditional shopping because E-shopping provides one to one communication which means that the marketer will market the product to one customer round the clock on the other hand traditional

marketing is done through one to much communication system (Armstrong & Kotler, 2009). E-shopping provides lots of advantage, among these two prominent advantages are large product variety and availability of many supplier, thus due to high competition price is cheap compared with local market (Brassington and Pettitt, 2000). In this part of the present study, the attitudes of consumers' about E-shop were analyzed. The reason why they were interested in using E-shop was also investigated. In addition, the consumers' opinions about how to improve the performance of E-shop were also collected.

5.5.1 Opinion on use of E-shop for agricultural product purchasing

Simple yes/no questions were asked to the respondents of rural and urban area to understand their opinion about E-shop that whether it was useful or not (Table 5.5.1). In rural area, 73.30 percent respondents thought that E-shop was useful for purchasing agricultural products while 6.70 percent respondent did not comment on this topic. By contrast, in urban area, 86.70 percent respondents thought that E-shop was useful for purchasing agricultural products while only 3.3 percent respondents did not comment on this topic.

Table 5.5.1: E-shop is useful tool or not for purchasing agricultural products

Is E-shop a useful tool for developing direct contact between farmers' and consumers'?	Rural		Urban	
	No. of respondents	percentage	No. of respondents	percentage
Positive answer	22	73.30	26	86.70
negative answer	6	20.00	3	10.00
no comments	2	6.70	1	3.30

Field survey, 2014

The combined results of rural and urban respondents indicated that most of them showing their interest and agree that E-shop can use as a direct communication tool between farmers and consumers. It might be highly possible to shift the traditional agricultural product marketing system to modern E-shop.

5.5.2 Reasons for interest on E-shop

The rank orders of reasons why respondents were interested in using E-shop are presented in Fig. 5.4. Six different kinds of reasons were selected and possible range 30 to 150 for each respondent. The lowest value indicates the most important reason whereas the highest value indicates weak reason in using E-shop. In rural area fig 5.4 (i), buyers and sellers can communicate directly consisted the lowest value 48 and ranked in first position. This was the most important reason for using E-shop by the opinion of respondent. Information and review of products (56) ranked in second position which was followed by time saving, best place for SME (60), cheap price (69), selection and good quality (76) and others (76).

In urban area fig 5.4 (ii), time savings consisted the lowest value 35 and ranked in first position. This was the most important reason for using E-shop by the opinion of respondent. Buyers and sellers can communicate directly (37) ranked in second position which was followed by information and review of products (45), best place for SME (45), cheap price, selection and good quality (67) and others (81).

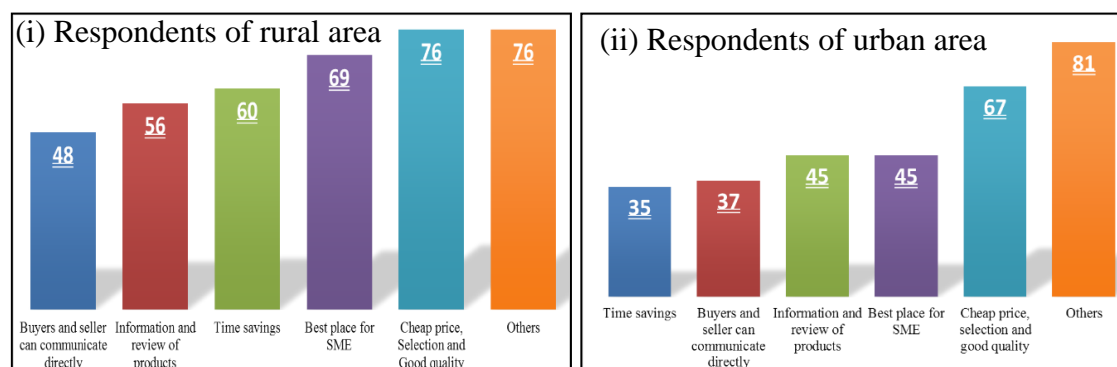


Figure 5.4: Reasons for interest on E-shop

The combined results of rural and urban respondents on the rank of reasons for using E-shop indicated that ‘buyers and sellers can communicate directly’ rank in first and second position. ‘Time savings’ rank in third and first based on rural and urban respondents. ‘Information and review of products’ rank in second and third based on rural and urban respondents. Therefore, the results suggest that, ‘time savings, ‘buyers and sellers can communicate directly’, ‘information and review of the products’ are the most important reason for using E-shop.

5.5.3 Items to be improved (Respondents thought)

The rank order of items to be improved on the basis of respondents thought for increasing the use of E-shop is presented in Fig. 5.5. Eight different kinds of items

were selected and possible range 30 to 150 for each respondent. The lowest value indicates the most important items whereas the high value indicate weak item to be improved in using E-shop. In rural area fig 5.5(i), E-shop is complicated consisted the lowest value 59 and ranked in first position. This was the most important item for using E-shop by the opinion of respondent. Lack of security and trust (64) ranked in second position which was followed by lack of knowledge (64), payment is risky (69), perishable products (71), delivery time and cost are high (79), insufficient product information (80) and others (84).

In urban area fig 5.5(ii), perishable products consisted the lowest value 44 and ranked in first position. This was the most important item for using E-shop by the opinion of respondent. Lack of security and trust (75) ranked in second position which was followed by lack of knowledge (76), E-shop is complicated (78), payment is risky (82), delivery time and cost is high 92, insufficient product information (92) and others (99).

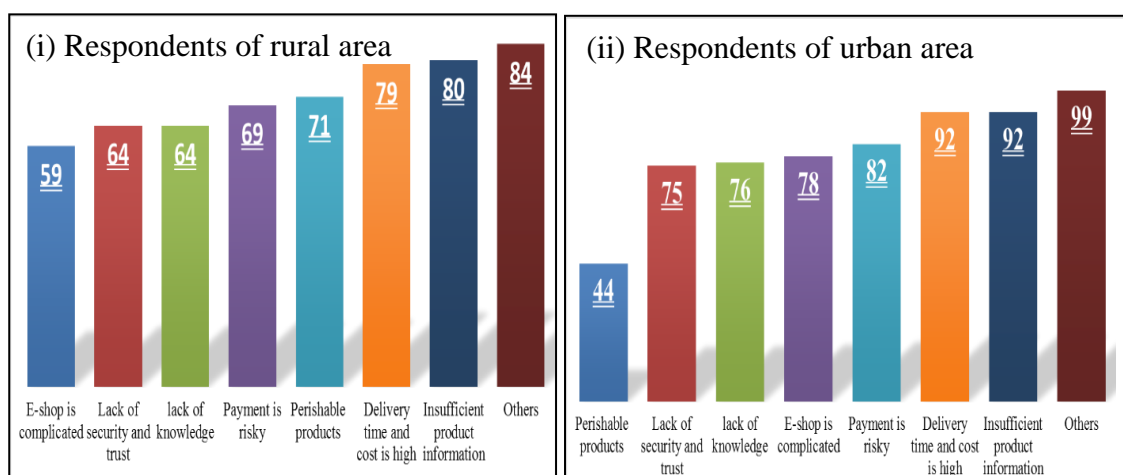


Figure 5.5: Items to be improved (respondents thought)

The combined results of rural and urban respondents on the rank of items to be improved for using E-shop indicated that 'E-shop is complicated' rank in first by rural respondents whereas urban respondents do not agree with this. The main reason for this might be the rural respondents are lagging behind in some areas than urban respondents. 'Security and trust' rank in second position and lack of knowledge rank in third position based on the response of both types of respondents. This result suggest that 'lack of security and trust', 'E-shop is complicated' and 'lack of knowledge about E-shop' are the most important limiting factors which should be improved for increasing the use of E-shop .

CHAPTER VI

FACTORS INFLUENCING E-SHOP FOR AGRICULTURAL PRODUCTS

6.1 General information

For developing a model of E-shop for agricultural products in selected areas of Bangladesh, it was observed that some causes were responsible regarding implementation and use of E-shop for agricultural products. This chapter adopted factor analysis to identify the major dimensions of the causes both from farmers' and consumers' perspective affecting on E-shop development for agricultural products.

6.2 Assessment of factors influence on implementation and use of E-shop for agricultural products (farmers' perspectives)

Factor analysis: Factor Analysis is primarily used for data reduction or structure detection. The purpose of data reduction is to remove redundant (highly correlated) variables from the data file, perhaps replacing the entire data file with a smaller number of uncorrelated variables. The purpose of structure detection is to examine the underlying (or latent) relationships between the variables. The analysis determined factors that affect implementation and use of E-shop for agricultural products in Bangladesh in the study area that explains most of the variance observed in the much larger number manifest variables by reducing the number of causes to a few factors. The analysis used principle component method to extract the factors with varimax rotation technique. Table 6.2.1 shows the results of the factor analysis those influence on E-shop. Based on the total variance, among 30 components, 11 components were selected with factor loadings more than equal to 40 percent. The eigen values of 12 to

30th components were less than 1. The selection of a particular variable to be included as a factor was made on the basis of whether the correlation value (factor loadings) was high or not. Further, six components were selected as main factors based on maximum variation from these selected 11 components.

KMO and Bartlett's Test: The Kaiser-Meyer-Olkin measure of sampling adequacy is a statistic that indicates the proportion of variance in variables that might be caused by underlying factors. High values (close to 1.0) generally indicate that a factor analysis may be useful with data. If the value is less than 0.50, the results of the factor analysis probably won't be very useful. Here, the KMO value was 0.547.

Bartlett's test of sphericity test: The test indicates that variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) of the significance level indicate that a factor analysis may be useful with data. Here the significance level was 0.00 or 1 percent.

On the basis of the maximum variation of the factors, the study identified six main factors from farmers' perspectives as the causes affecting implementation and use of E-shop for agricultural products. These factors are:

Factor-I (Economic status of the farmers': Annual income, income source: agriculture, annual expenditure, expenditure source: production.

Factor-II (Agricultural product marketing): Storage activity performed by farmers, selling products just after harvest (-), selling products selling when price is high, no storage facility (-), adequate storage facility.

Factor-III (Problems and solution for farmers): Attitude of farmers, selling of farm products, influence of lack of education, items to be improved in E-shop, constraints of agricultural products marketing.

Factor-IV (Technical knowledge): Education of the farmers, reasons for adopting E-shop, access to bank account, transaction through bank accounts.

Factor V (Interest on E-shop): Access or use of internet, interest on learns to use internet, reason to accept E-shop, Age.

Factor VI (Mobile user): Sex and access to mobile phone.

Table 6.2.1: Factor analysis of causes that affect the implementation and use of E-shop for agricultural products (from farmers' perspectives)

Causes affect E-shop for agricultural products	Factor loadings											Communities
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	
F1= Economic status of the farmers'												
Annual Income	.967											.965
Income from agriculture	.977											.981
Annual Expenditure	.979											.980
Expenditure source production	.978											.977
F2= Agricultural product marketing												
Storage activity performed by farmers'		.576										.711
Selling products just after harvest		-.622	.437					-.431				.656
Selling products when price is high		.838										.811
No storage facility		-.734										.870
Adequate storage facility		.812										.871
F3= Problems and solution for farmers'												
Attitude of farmers'			-.703									.734
Farmers' activity: selling			.599									.691
influence of lack of education			.459						-.418	.449		.674
items to be improved in E-shop			.854									.865

Constraints of agricultural products marketing			.453	.531									.743
F4= Technical knowledge													
Education of the farmers'		.422		-.493									.738
reasons for adopting E-shop				.400	.686								.792
access to bank account				.798									.763
transaction through bank				.757									.651
F5 =Interest on E-shop													
Access or use of internet					.667								.573
interest on learns to use internet					.489								.633
reason to accept E-shop				.400	.686								.792
Age					.462								.637
F6 =Mobile user													
Sex						.717							.668
Access to mobile phone						.701							.744
Eigen value	5.40	3.45	2.63	2.29	1.85	1.57	1.54	1.39	1.18	1.15	1.01		
Percent of variation	17.99	11.49	8.76	7.63	6.18	5.22	5.14	4.65	3.947	3.816	3.35		
Cumulative percent of variation	17.99	29.48	38.25	45.87	52.06	57.28	62.42	67.06	71.01	74.83	78.18		
KMO= 0.547, Bartlett's Test of Sphericity (Approx. Chi-Square)= 1331.205 & Only factor loadings \geq 0.40 has been shown in the table, P- value= 0.000													

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 25 iterations.

The elements of each of the above factors were arranged in order of their respective magnitude (absolute) of factor loadings indicating the importance of a particular element in a factor. The causes comprising Factor I was mainly related to Economic factor; the causes comprising factor II contained the causes related to factor affecting Agricultural product marketing; the Factor III related to Problems and solution for farmers'; the elements of Factor IV included the causes related to Technical knowledge factor. Factor V related to Interest on E-shop and the element of Factor-VI include the reasons related to farmers' response. The negative value of factor loadings for the variables number of time of selling just after harvest, no storage facilities in Factor II; attitude adopting new marketing system (E-shop) in Factor III; education in Factor IV indicated that these variables were inversely related to Factor II, Factor III and Factor IV. The results suggest that these factors are mainly responsible for establishing new marketing channel such as E-shop for agricultural products in Bangladesh. Therefore, the government agencies and other concerned should take proper action to improve the economic condition of farmers', factors regarding agricultural products marketing, constraints and solutions for agricultural products marketing, ICT based technological knowledge and socio cultural norms of the farmers' for adopting and implementation new marketing channel such as E-shop.

6.3 Assessment of factors influence on implementation and use of E-shop for agricultural products (consumers' perspectives)

The present study was attempted to identify the most influencing factor both from rural and urban consumer which will be further used for implementation of E- shop.

6.3.1 Rural consumers' perspective

On the basis of the maximum variation of the factors, the study identified six main factors from rural consumers' perspectives as the causes affecting implementation and use of E-shop for agricultural products (Table 6.3.1). These factors are:

Factor-I (Disadvantages): E-shop is complicated, perishable agricultural products, lack of security and trust, lack of knowledge, purchase frequency from E-shop.

Factor-II (Usefulness): Response about E-shop, time savings, information and reviews of product, direct link between buyers and sellers

Factor-III (Consumers' movement towards E-shop): Type of mobile phone, internet access, cheap price, selection, good quality.

Factor-IV (Constraints & economic status): Constraints in using E-shop, annual income, expenditure: food, insufficient product information, occupation: service

Factor -V (Educational factor): Level of education.

Factor -VI (Knowledge on E-shop): Heard about E-shop. Any others advantages and disadvantages of E-shop.

Table 6.3.1: Factor analysis of causes that affect implementation and use of E-shop for agricultural products (rural consumers' perspective)

Reasons that affect E-shop of rural consumers'	Factor loadings							Communalities
	F1	F2	F3	F4	F5	F6	F7	
F1=Disadvantages								
E-shop is complicated	.844							.744
Perishable agricultural products	.811							.827
Lack of security and trust	.891							.848
Lack of knowledge	.888							.845
Purchase frequency from E-shop	-.528		-.419					.772
F2= Usefulness								
Response about E-shop		.732						.822
Time savings		.706						.649
Information and reviews of product	.427	.766						.813
Direct link between buyers and sellers		.838						.838
F3= Consumers' movement towards E-shop								
Type of mobile phone			-.771					.651
Internet access			.779					.814
Cheap price, selection, good quality			.790					.727

F4= Constraints and economic status										
Contraints in using E-shop					-.455			.425	.765	
Annual income					.364			.798	.802	
Expenditure: food					.906				.864	
Insufficient product information					.603				.691	
Occu: service					.512	.572			.809	
F5=Educational factor										
Level of education						.860			.759	
F6= Knowledge on E-shop										
Heard about E-shop								-.664	.633	
Others						-.502	.694		.836	
Others							.585		.732	
Sex of the respondents								.429	-.515	.720
Eigen value	5.63	3.38	2.25	1.75	1.52	1.31	1.11			
Percent of variation	25.59	15.37	10.24	7.97	6.91	5.95	5.06			
Cumulative percent of variation	25.59	40.97	51.22	59.19	66.09	72.04	77.09			
KMO = 0.502, Bartlett's Test of Sphericity (Approx. Chi-Square)= 396.649 & only factor loading $\geq .40$ has been shown in the table, P-value= 0.000										

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 25 iterations.

The elements of each of the above factors are arranged in order of their respective magnitudes indicating the importance of a particular element in a factor. It can be concluded from the results that disadvantages and usefulness, response of consumers' on E-shop, consumers' movement towards E-shop, constraints and economic status, educational level and knowledge on E-shop are the most important factors that affect on adopting new marketing channel E-shop.

6.3.2 Urban consumers' perspective

On the basis of the maximum variation of the factors, the study identified six main factors from urban consumers' perspectives as the causes affecting implementation and use of E-shop for agricultural products (Table 6.3.2). These factors are:

Factor-I (Limitation in using E-shop): Type of mobile phone, response about E-shop, Insufficient product information, High delivery time and cost, any others disadvantages if exists

Factor-II (Advantage and use of E-shop): Purchase frequency from E-shop, best place for SME, information and reviews of product

Factor-III (Personal characteristics of consumer): Occupation: service, heard about E-shop, level of education, occupation: business

Factor-IV (Economic status): Annual income, expenditure: food, cheap price, selection, good quality, sex of the respondents.

Factor-V (Use of E-shop): Internet access, constraints in using E-shop, total satisfaction index.

Factor-VI (Cost for education): Expenditure source: education.

Table 6.3.2: Factor analysis that affects implementation and use of E-shop for agricultural products (urban consumers' perspective)

Reasons that affect E-shop of urban consumers'	Factor loadings							Communalities
	F1	F2	F3	F4	F5	F6	F7	
F1 =Limitation in using E-shop								
Type of mobile phone	.513							.717
Response about E-shop	-.561	.453					.496	.832
Insufficient product information	.789							.814
High delivery time and cost	.773							.739
Others	.800							.782
F2= Advantage and use of E-shop								
Purchase frequency from E-shop		-.844						.900
Best place for SME		.733	.455					.825
Information and reviews of product		.482				.582		.889
F3= Personal characteristics of consumer								
Occu: service			-.833					.772
Heard about E-shop			.401					.463
Level of education			-.749					.688
Occu: business			.693					.778
F4 =Economic status								
Annual income				.823				.781
Expenditure: food				.822				.791

Cheap price, selection, good quality					-.423		.709		.741
Sex of the respondents		-.463			-.628				.807
F5 =Use of E-shop									
Internet access						-.838			.893
Constraints in using E-shop						.657		-.449	.747
Total satisfaction index						.852			.866
F6= Cost for education									
Expenditure: education							.851		.781
Age of the respondents								.844	.805
Eigen value	4.69	2.79	2.56	2.15	1.82	1.37	1.03		
Percent of variation	22.32	13.30	12.19	10.24	8.66	6.52	4.90		
Cumulative percent of variation	22.32	35.63	47.83	58.08	66.72	73.24	78.14		
KMO=0.516, Bartlett's Test of Sphericity (Approx. Chi-Square)= 339.256 & only factor loading $\geq .40$ has been shown in the table, P-value= 0.000									

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 9 iterations.

The result suggests that the elements of each of the above factors are arranged in order of their respective magnitudes indicating the importance of a particular element in a factor. Though the age of the respondents is a significant factor for urban consumers on the use of E-shop it lies in factor 7. It can be concluded from the results that consumers attitude, reasons for interested and not in E-shop, socio-economic condition of the urban consumers, constraints and satisfaction index on E-shop are the most important factors that effect on urban consumers adopting new marketing channel such as E-shop.

CHAPTER VII

MODELING OF E-SHOP FOR AGRICULTURAL PRODUCTS

Agricultural products marketing involve what consumers want and supplying it to them at a profit. In other words, the series of services involved in moving a product from the point of production to the point of consumption. The two most important points related with marketing system are

- The marketing process has to be customer oriented.
- Marketing is a commercial process which provides profit to farmers, transporters, traders, processors etc. or they will be unable to stay in business (Dixie, 2005).

A simplified diagram showing the flow of farm products to the markets are also a useful tool to help farmers to understand the alternative ways that they can sell their products (Fig. 7.1).



Figure 7.1: Diagram of the traditional marketing channels for agricultural products (source: Dixie, 2005).

At present, several intermediary stages are involved in the marketing system of farm products. The result is, of course, that the consumer pays an excessive price and the producer receives a very low price for his production. Naturally, it is in the interests of both farmer and consumer that consumers want to pay low prices while farmers want to receive high prices and to be paid as much of the consumer price as possible. The best way of achieving a balance between these two conflicting aims is through an efficient and low-cost marketing chain. This generally involves using larger scale transport (achieving economies of scale), reducing losses, and reducing other costs. An example of how costs can be reduced is the promotion of competition between buyers and also the number of steps in the marketing process be reduced as much as possible.

Now a day's use of technology in each and every sector is very common. In this era of globalization it can hardly find any sector operating without using technology. So there is no doubt and it is quite natural that business world will also use technology effectively as well as efficiently and take the greatest advantage which is offered by technology. Internet is one of the largest blessings of technology, which enables people from the distant parts or county to interact or communicate easily. It has made the whole globe a single village. A new horizon has been opened up for trade and commerce, namely electronic business (E-business) by none other than one and only internet. E-business entails the use of internet in the marketing, identification, payment and delivery of goods and services all are done by e-business using internet. To discover the future of e-business in Bangladesh, we must need a clear idea about e-

business. At present, there is some field where e-business is running successfully in Bangladesh.

E-shopping is considered to be a very helpful way of buying products through the internet especially during the holidays and clearance seasons. It allows customers to enjoy a wide variety of products and items not only from a specific store, but from a diverse storage that includes all kinds of items. E-shopping also provides customers with a good customer service that also occurs online. Many people around the world prefer to shop online and buy products from several brands and companies that they cannot find or are not available for purchase in their home countries. Nowadays with the help of the new technology and the support of the internet, people from all around the world started to purchase items online by simply sitting in their homes. Purchasing items and products through the Web is a very easy task to do. It is now playing a very important role in everybody's life especially elderly people, as well as people with a very busy life schedule.

Although this sectors are operating very limited operations in Bangladesh due to lack of adequate customer, still it has many potentials to be pervasive. Whilst it may not be possible to predict with any degree of certainty how the internet will shape the design of markets, the practice of marketing or the behavior of on-line shoppers, in the future, it is very clear that on-line retailing's market-share and influence will continue to rise. An appropriate model of E-shop can reduce the gap between the seller and consumer through online shop. Both consumer and seller will receive more benefits thus E-shop might provide a two way effective measure which may reduce the middle man in the supply chain.

In this study, the proposed model of E-shop for agricultural products have four distinct functional phases. At first, an easy user interface is introduced for selling farm products direct from the farm (Fig. 7.2). Secondly, the functional model of using E-shop for agricultural products from consumer perspective is presented diagrammatically (Fig. 7.3). Thirdly, the E-shop for short distance consumers from farmers' perspective is presented diagrammatically (Fig. 7.4). Fourthly, the E-shop for long distance consumers from farmers' perspective is presented diagrammatically (Fig. 7.5). Finally, combining the four different phases of E-shop for agricultural products, a complete model is proposed (Fig. 7.6).

7.1 User interface of Mob apps/web of E-shop



Figure 7.2: User interface of E-shop both for farmer and consumer.

First, an online shopper or farmer needs to create a personal account which includes a username and a password. It is very important for the customer to save the account information in a safe place in order not to lose it or allow other people to use it under their personal name. In the present study, major number of farmers were not well educated but, most of them used mobile phone. Therefore, taking the advantage of mobile phone use of farmers, it is suggested that a technically experienced person should be appointed to assist farmers and provide training about using E-shop.

After creating an E-shop account, the consumer will start enjoying the wide variety of products and items that are available in E-shop. The customer will then click on the desired item in order to add it to the personal shopping bag or basket. By contrast, after creating an online account, farmers will upload the information about their farm products. It should be noted that for both buyers and sellers, security is considered as the most important factor and it is necessary to sign out every time when buyers and sellers are using common computers or laptops and internet.

7.2 Functional model of E-shop (consumers' perspective)

The complete process of buying an item from E-shop is presented in Fig. 7.3. At first consumers enter in E-shop and create an account with their personal information. The identity will be created in the E-shop database and save all the activities of the consumers. The consumer will browse for the desired products from several sellers and compare the price and quality among the sellers. Then the consumer will select an item from a specific seller. Then they need to choose a payment method of the product and send a request to the E-shop provider. After, receiving the request of an item from consumer, the E-shop provider will start further processing and inform to the

consumer about the details information about the delivery time and cost. After confirming the product request, the consumer checks out or sign out from the mob app/ website of E-shop. This whole process of buying products by consumer is monitored by a reliable third party organization. The third party organization should be a well-known governmental or non-governmental organization which will manage the whole process.

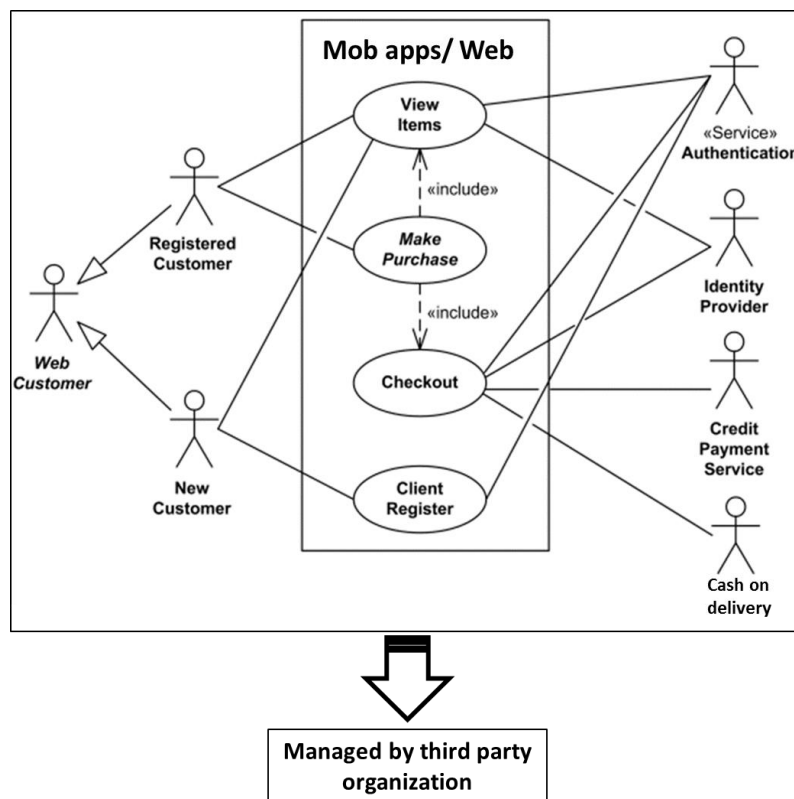


Figure 7.3: Diagram of the functional model of E-shop (consumers' perspective)

7.3 Functional model of E-shop for short distance consumer (farmers' perspective)

The complete process of selling an item from E-shop by farmers to short distance consumers is presented in Fig. 7.4. For selling a product from E-shop, farmers need to create an account using their personal information such as voter identification card and their bank account information. It was already found that the education level and the annual income of the farmers were very low in the study area. It was also noticed that most of them were marginal or small farmer. Therefore, it is necessary to assist them at the beginning of using E-shop such as create and account and different steps of selling products. After creating an account, they will provide details information about their farm products. This activity will be done when farm products are growing in the field. Farmers call for pre-booking for their products and consumer will choose from several farmers for same items. After they get the order of their products, they will package and deliver the products directly by themselves outside the farm or in short distance. It will reduce the delivery and storage cost of their products and able to manage large amount of consumers with little effort. During delivering the products, farmers collect the money by themselves. It will reduce the complexity of money transaction by bank or other medium. After receiving an order, if a farmer fail to deliver the products without any strong reason, the consumer will claim to the E-shop website and mark the farmer in red list.

In the present study, the consumer from rural area were also interested in using E-shop. It will provide a great opportunity for them to receive fresh farm products directly

from farmers. The functional model system of E-shop for short distance consumer might be a useful model system for selling farm products in the rural area

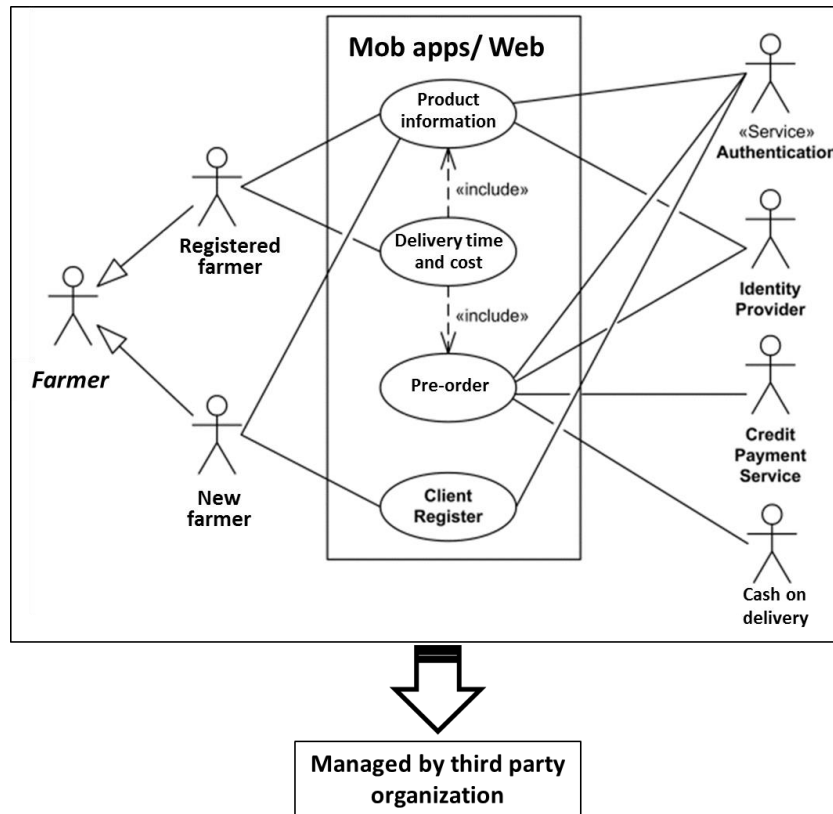


Figure 7.4: Diagram of functional model of E-shop for short distance consumers (Farmers’ perspectives).

7.4 Functional model of E-shop for long distance consumer (farmers’ perspective)

The complete process of selling an item from E-shop by farmers to long distance consumers is presented in Fig. 7.5. Selling the farm products from E-shop for long distance farmer is also similar with the model of selling farm products for short distance farmers. In this this model farmer need to create an account and provide details information in the E-shop. The main difference between the model of short distance and long distance consumer is that, in this model, product delivery and

payment system will be managed by a third party organization. In addition, they also provide customer support and helpline phone number for the long distance consumers. After receiving the pre-order from several consumers, the third party organization packages the products according to requirement and combined all orders of the same area. Then they will send all the items together to a specific area to reduce the transportation cost. This third party organization also plays an important role in delivering the product to the customer and paid the money to the farmers. In this model, the third party organization will perform a characteristic role in selling the farm products in long distance. Therefore, the third party organization must be a reliable, trusted and friendly source for farmers and consumers.

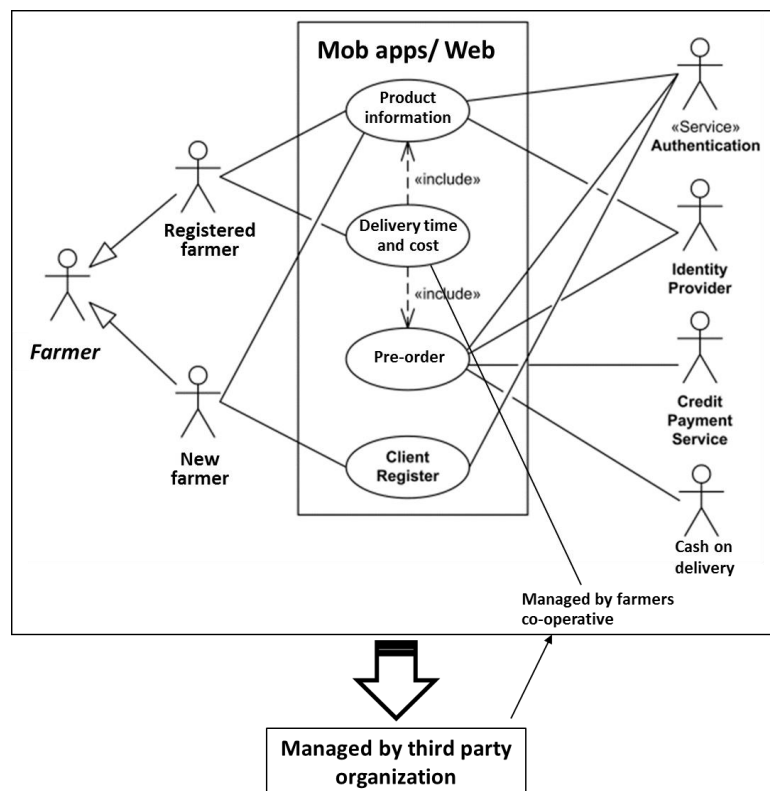


Figure 7.5: Functional model of E-shop for long distance consumers (Farmers' perspectives).

7.5 Proposed model of E-shop for agricultural products

The proposed model of E-shop for agricultural products is presented in Fig. 7.6. In this model, the E-shop is managed by farmers' co-operative organization which is friendly to farmers and controlled by farmers. This organization will assign technical personnel to help and teach farmers about using E-shop. One of the most important purpose of this organization is to provide all necessary support to the farmers by arranging workshop and training program about use of internet, web browsing and E-shop. The main goal of this farmers' co-operative organization is to make all the farmers self-sufficient for selling their farm products using E-shop.

In this model system, farmers will provide details information about to the farmers' co-operative organization when farm products is growing in the field. The assigned technical person of this organization will upload the information about farm products and call for pre-order from consumer via E-shop. They also provide different kinds of promotion and discount offer to attract the consumer.

Consumers entered in the E-shop and search for their desired items. They compare the items based on farmers ranking, price and quality or according to the growing area. They will select an items and pre-order of an item to the E-shop. At the same time they also select the amount of farm products and payment method.

When farmers' co-operative organization receive an order through E-shop, they will inform the details about the order to the farmer. After harvesting farm products, farmers package the products according to the order. Farmers' co-operative organization will provide support to farmers in storage and packaging of their farm

products. After packaging, co-operative organization will collect all the farm products from different farmers. They combined all the orders of consumers from similar location and manage transportation. For delivering the farm products in the desired location, farmers' co-operative organization work in collaboration with some other companies such as currier service.

After receiving the products, consumer will rate the quality of service and their opinion which will be used for future improvement. If the consumer have some problem in receiving the products or product quality, they will directly make a contact through customer support center of the E-shop.

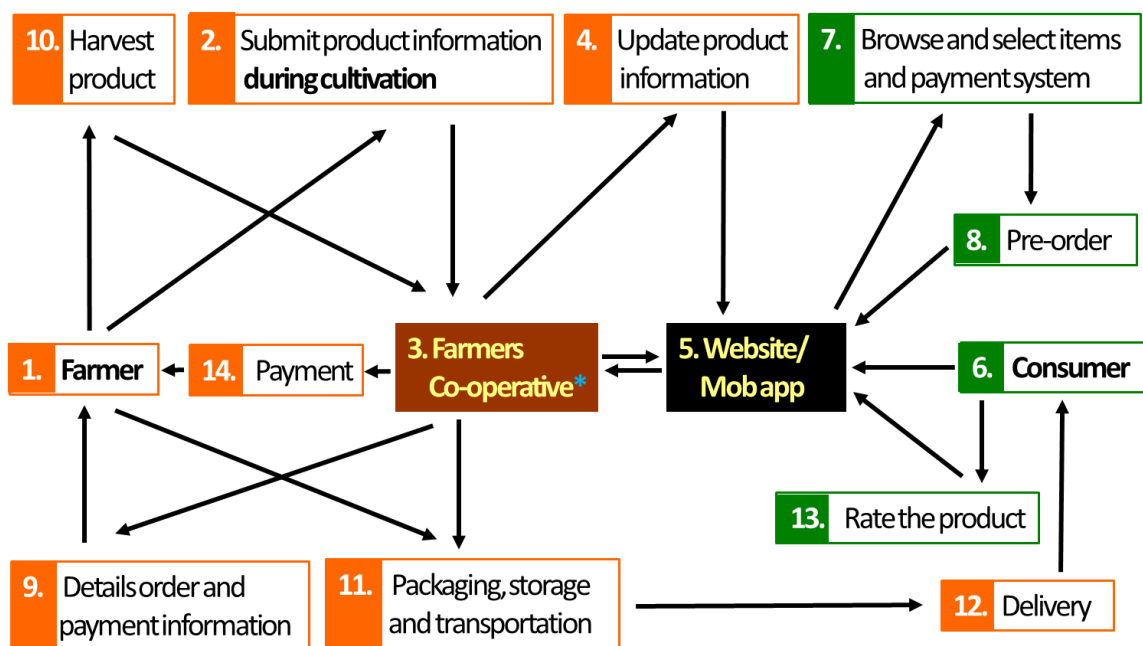


Figure 7.6: Proposed model of E-shop for selling agricultural products for all kind of consumer.

(* Farmers' Co-operative will form and manage directly by the farmer which controls the whole marketing system)

When farmers' co-operative organization receive green signal from consumer they will pay the money to the farmers'. Based on consumers rating, farmers' co-operative will improve their service and attract more consumer to their E-shop.

When people purchase at an electronic store, they may have different considerations at different decision stages. A good design must support customer needs at each stage of their decision processes. Therefore, a model is a useful tool which use as a base to derive user requirements for electronic stores. When consumers feel demand for an item, they collect product information and alternative products are also checked and evaluated. Once an alternative is chosen, the consumer evaluates the outcome and save the experience for the future (Liang and Lie, 2000).

The price of agricultural products is double after adding the delivery cost. However, co-operation among farmers decreases transportation costs and that collective initiatives enable farmers to enter the pathway of quality food production without investing excessive labor or capital (Verhaegen et al., 2001). A producer organization or growers cooperative can be established to reduce the intermediaries from the supply chain of agricultural products. The establishment of cooperative ensuring the participation of local farmers and ensure fair price for the growers and consumers with the direct marketing system (Mondol, 2010; Abdullah and Hossain, 2013).

In the present study, the model of E-shop is based on a farmers' co-operative organization which must be formed by the farmers or growers of specific region and this cooperative is responsible for all kinds of activities that are essential to the farmers including financial, informational and all other marketing activities. This will help the famers get the fair price and the customer will get the products at fewer prices.

The farmers' cooperative organization must have specific strategic planning for the operation of the cooperative. The strategic planning must incorporate some fundamental issues through which growers' participation and fair price are ensured for the farmers'.

The farmers of the study area were poor but interested in adopting and use of E-shop for selling their products. At the initial stage of implementation of E-shop, they need some assistance to complete the selling process of their farm products. Later they will learn the process operated by themselves. This proposed model of E-shop might be useful in poverty alleviation and improve the social condition of farmers. By contrast, consumers will get large scope to buy fresh product directly from farmers.

CHAPTER VIII

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 Summary

Marketing management is the planning and implementation of programs designed to create, build and maintain sales of a product. In Bangladesh, agriculture is one of the most important contributing sectors to the economy. The economic growth of an agro-based country like Bangladesh mainly depends on the development of agriculture sector. Therefore, agricultural marketing channel at present, their constraints and future improvement were investigated. By contrast, consumers' attitude in buying agricultural products from a new marketing platform named E-shop was also investigated. In addition, this study also focused on the constraints related with present agricultural product marketing channel and consumer satisfaction on E-shop.

The study was divided into mainly two parts such as from farmers' perspective and from consumers' perspectives. Two separate questionnaires were prepared for data collection from farmers' and consumers'. Farmers' data were collected from two villages in Thakurgoan district. Consumers' data were collected from rural (Thakurgoan) and urban area (Dhaka) to understand their requirements from E-shop for buying agricultural products. Finally, a model was proposed for implementing E-shop which was directly managed by the farmers and their organization to get the highest benefit from their farm product.

The analysis of socio-demographic variables of farmers indicated that most of the farmers were middle and old aged. They were mostly illiterate or poor in education.

It was hard to find farmers with higher level of education. The economic conditions of farmers were also unsatisfactory. Highest proportion of their income came from their agricultural farm products which was not enough for their daily living cost. Thus, they lend or loan money every year from several sources for farming. They were bound to sell their farm products after harvest to return the lending money from others. Another reason was that, they did not have adequate storage facility to store their product for a long time. They eagerly need money, for that they did not have any chance to think about benefit or loss from selling their farm products. Most of them were involved in only growing, harvesting and selling of their products. As a result, some middle man performed in rest of the marketing activities and get benefitted. The agricultural marketing system was surrounded with different kinds of constraints and most of the farmers faced these constraints. The results of factor analysis indicated that economic status and agricultural marketing system had high influence on the acceptance of E-shop among the farmers.

Due to high level of constraints in present agricultural marketing system, most of the farmers were interested in adopting a new marketing channel called E-shop without knowing it very well. With a lack of knowledge about E-shop, the main reason for adopting this marketing system was that to get fair price of farm products and they can directly communicate with the consumers. However, they also suggested that the E-shop must be managed by highly trusted organization which ensures the security and privacy of farmers.

The analysis of socio-demographic variables of consumers showed that the consumers lived in rural area had less education level compare with the consumers in urban area.

The most of the rural consumer were directly or indirectly involved with agriculture while the main earning source of urban consumers were governmental or non-governmental service. The annual income and expenditure was higher among the urban consumer than rural consumer. Urban consumer were mostly using smart phone which can be further utilized for internet access while few respondent had smart phone and access internet in rural area. The knowledge about E-shop was also high among urban consumers and sometime they purchase some products from E-shop. However, majority of urban and rural consumer browse in E-shop to compare the price. Both the rural and urban consumers were faced some constraints in using E-shop, but, they were satisfied with E-shop.

The main underlying reason for highly positive response in adoption of E-shop among rural and urban consumers were that it save time and delivered the product at home. The results of factor analysis indicated that advantages and disadvantages in using E-shop had high influence in adoption and use of E-shop. The response of urban consumers also showed that limitation in using E-shop and the positive site of using E-shop had the highest influence in adoption and use of E-shop.

8.2 Conclusions

The internet and mobile user in Bangladesh is growing day by day. Now a day's all kinds of people are interested to get benefitted from using latest technology. The urban people were ahead than rural people in using latest technology. However, this difference is not so important for the marketing of agricultural products. In several study, it is proposed that E-shop in Bangladesh can be a boost if all the participants join in internet based business. The home delivery, time saving and fulfill the demand

in emergency are the characteristic advantages of using E-shop. However, there are still some limitations related with E-shop such as lack of trust and security, which should be improved. Various discounts, promotional campaign and different types of interesting offers should introduce to attract more consumers.

Farmers consider marketing of their farm products as being their major problem. However, while they are able to identify such problems as poor prices, lack of storage and transport facility, they are often poorly equipped to identify potential solutions. Successful marketing requires learning new skills, new techniques and new ways of obtaining information.

The proposed model of E-shop for selling agricultural products which is directed by farmers', is the first attempt to develop a new marketing channel using internet. This model of E-shop is fully managed by farmers' co-operative organization. The cooperative will perform as marketers for the farmers' through E-shop ensuring fair price for farmers and consumers. The co-operative must be controlled and monitored by the farmers of local area and proper management, capital requirement, marketing orientation programs and other activities are considered as major issues in implementing a successful co-operative organization.

The proposed model of E-shop is not only a model for farmers but also it can be implemented for all small and medium entrepreneurs (SME). The E-shop opens a wide area of business which can be operated from home. It might be possible that in future, the farmers of Bangladesh not only sell their products in national market but also they can use this platform for selling their product worldwide.

8.3 Recommendations

On the basis of the foregoing discussion, the following recommendations are suggested for the policy makers

1. Implementation of farmers' co-operative organization

To form an effective, meaningful and trustworthy farmers' co-operative organization, governmental support is needed. The department of agricultural extension (DAE) might play an important role in the implementation of farmers' co-operative organization and train up the local people about this new marketing system.

2. Focus on perishability of farm products

Most of the farm products are perishable and require post processing after harvesting. This is one of the biggest problems in marketing of fresh agricultural products. Several processing techniques are used recently to increase the longevity of farm products. The research should be conducted on processing of different kinds of farm products to find the suitable and cheap technique which will not harmful for health. In addition, some fresh food processing industry should be developed.

3. Improvement in transportation system

The supply of fresh agricultural products to the destination must be organized in such a way that the quality of the products remains unchanged. Therefore, specialized transportation system such as refrigerated van needs to be developed.

4. Assurance of quality farm products

For the increase in longevity, most of the agricultural products are adulterated with toxic chemicals which are responsible for several health issues. But when a consumer orders some products in E-shop, it will send by the farmers or farmers' co-operative organization. Therefore, the farmers' co-operative organization must be strict to deliver high quality and healthy products.

5. Low price of farm products

Pricing structure must be transparent and no hidden cost is included. The consumers of E-shop should be attracted and encouraged by offering products with reduced price.

6. Increasing the security and trust

Efforts to increase the security of E-shop and trustworthy behavior of retailers will prove the advantage for both consumers and farmers. To increase the security of E-shop, certification from international well known anti-virus organization should be needed.

7. Enacting proper laws and regulation

To avoid the fraud activity, government should establish laws and regulation which ensures the safety of personal information of farmers and consumers in E-shop.

8. Strengthening training program regarding use of Apps:

Government and NGOs can arrange training program for farmers to increase the use of mobile phone, internet access and also about E-shop among the local people in remote rural areas.

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APPENDIX-I

A Questionnaire on

A Study on E-shop for Agricultural Products in Selected Areas of Bangladesh

From Farmers' Perspective

Respondent no _____ Date _____

Name of the Respondent _____

Village _____ Union _____

Upazila _____ District _____

I. Socio-demographic factors of farmers

Sl. no.	Query	Response/Answer	Code
1.	Age		
2.	Sex		1=Male, 2=Female
3.	Education level		1= No formal education, 2= Can sign only, 3= educated (Specify education level)
4.	Annual income		Total annual income (a+b+c) = Taka

5.	Annual Expenditure	Sl.	Source	Taka
		i.	Production (month*12)	
		ii.	Food (month*12)	
		iii.	Cloth (Yr)	
		Iv	Health (Yr)	
		V	Education (month*12)	
		vi.	Others (Yr)	

I.4.a. Income from agricultural crops (last year)

Sl no.	Name of crops	Total income (Tk)
1.	Rice	
2.	Wheat	
3.	Jute	
4.	Maize	
5.	Pulse	
6.	Vegetables	
7.	Fruits	
8.	Others	
	Sub-total	

I.4.b. Income from domestic animals and fisheries (last year)

Sl no.	Source of income	Total income (Tk)
1.	Livestock	
2.	Poultry	
3.	Fisheries	
	Sub-total	

I.4.c. Income from non-agricultural source (last year)

Sl no.	Source of income	Total income (Tk)
1.	Service	
2.	Business	
3.	Day Labor	
4.	Other Family Members	
	Sub-total	

II. Factors affecting agricultural products marketing

Sl no.	Questions/Query	Response/Answer	Code
1.	Activities of farmers in agri-products marketing		1=Planning, 2=Growing, 3=Harvesting,4=Grading,5=Packaging,6=Transport,7=Storage,8= Distribution, 9= Sale
2.	Time of selling farm products		1= just after harvest 2= few time after harvest 3=when price is high
3.	Processing		1= raw product, 2= semi-processed, 3= fully processed 4= others

4.	Storage capacity		1= having no storage facility 2=having limited storage 3= having adequate storage facility
5.	Method of money transaction for selling agri-products		1= Hand cash, 2= Bank transfer 3=B kash 4= Mobile banking

III. Constraints faced by farmers' in agricultural products marketing

Constraints	Nature of constraints				
	Very high	High	Neutral	Little	Not at all
Perishability					
Low storage capacity					
Low transportation facilities					
Lack of processing industry					
Variation in price of agri-products					
Lack of bargaining power					
High production cost					
Lack of Govt. policy, rules, regulation					
Lack of improved technical personal					
Socio cultural norms of the farmers					
Fraud and lack of security					

IV. Attitude towards adopting a new marketing system (E-shop) for agricultural products

a. strongly agree b. agree c. neutral d. disagree e. strongly disagree

V(a). Please explain why you interested in adopting new marketing channel such as E-shop

Reasons to adopt E-shop	Nature of constants				
	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Best place for SME					
Cheap price, Selection and Good quality					
Information and reviews of products					
Buyers and sellers can communicate directly					
Time savings					
Others (.....)					
Reasons not to adopt E-shop					
Online shopping is complicated					
Product information is insufficient					
Online payment is risky					
Agricultural product is perishable					
Delivery time and cost is high					
Lack of security and trust					
Lack of knowledge					
Others (.....)					

V(b). If you are interested in E-shop (IV), please answer the following questions

Question	Yes	No
Does lack of education affect to adopt a new strategy?		
Do you have mobile phone?		
Do you ever use internet?		
Are you interested to learn about using internet?		
Do you have an account in bank?		
Are you interested to transact money through bank?		
Have you ever transact through post office or currier service in your area?		

InterviewerDate:

Checked by:

SupervisorDate:

APPENDIX-II

A Questionnaire on

“A Study on E-shop for Agricultural Products in Selected Areas of Bangladesh”

From Consumers’ Perspectives

Respondents no _____ Date _____

Name of the respondent _____

Village _____ Union _____

Upazila _____ District _____

I. Socio-demographic factors of consumers

Sl no.	Questions/Query	Response/Answer	Code
1.	Age		
2.	Sex		1=Male, 2=Female
3.	Family member		
4.	Education level		1=No formal education, 2= Less than H.S.C, 3=Graduate, 6=Others (.....)
5.	Occupation		1 = Service 2 = Business 3= Student 4=Agriculture 5= Others (.....)
6.	Annual income		

7.	Annual Expenditure	Sl.	Source	Taka
		i.	Food (Month*12)	
		ii.	Cloth (yr)	
		iii.	House repairing (yr)	
iv.	Education (yr)			
v.	Health (yr)			
vi.	Others(.....)			
		Subtotal (tk/yr)		

II. Consumers' movement towards E-shop

Sl no.	Questions/Query	Response/Answer	Code
1.	Types of phone you are using		1= General phone, 2= Smart phone 3= No phone
2.	Access to internet		1= yes (a. mobile b. broadband c. WiMAX) 2= no
3.	Duration of using internet (hours per day)		1=less than 1 (hour), 2= 1-2 hours, 3= 3- 4 hours, 5= more than 4 hours
4.	Have you heard about E-shop or online shop		1= yes (If yes, please answer the following) 2= no
5.	How many times did you purchase from E-shop? (per year)		1= no purchase, 2= 1-5, 3= more than 5 4= gather information

6.	Payment method		1=Cash on Delivery 2=Credit card/Debit card 3=Mobile Transaction 4=Online Transaction 5=Via ATM 6=Money Order 7=Others (.....)
7.	Product delivery method		1=Self service 2=Courier service 3=Products from nearest shop

III. Constraints faced by consumers' in shopping from E-shop

Constraints	Nature of constraints				
	Very high	High	Neutral	Little	Not at all
Product price higher in E-shop than traditional shop					
Lack of security and trust					
Complicated payment system					
Ordering or receiving wrong item					
Delivery in wrong place					
Problems with online money transaction					

IV. Influencing factors related to consumers' satisfaction

Factors influence satisfaction level of consumer	Nature of constraints				
	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Satisfied with price and product quality					
Food safety					
Fulfill demand in emergency					
Order large amount of product					
Free home delivery					
Provides discounts					
Variation in pricing					
Transaction facility					

V(a). Is E-shop a useful tool for developing direct contact between farmers' and consumers'?

- a. Yes b. No

V(b). Please explain why you think that E-shop is useful or not

Advantages	Nature of constraints				
	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Best place for SME					
Cheap price, Selection and Good quality					
Information and reviews of products					

Buyers and sellers can communicate directly					
Time savings					
Others (.....)					
Disadvantages					
Online shopping is complicated					
Product information is insufficient					
Online payment is risky					
Agricultural products is perishable					
Delivery time and cost is high					
Lack of security and trust					
Lack of knowledge					
Others (.....)					

InterviewerDate:

Checked by:

SupervisorDate:

APPENDIX III

A. Different kinds of E-shop in Bangladesh

A.1 B2B

www.bizbangladesh.com/

www.bgmea.com.bd/

www.bangladesh.busytrade.com/

www.banglamart.com/

www.bdbrands.com/

www.buyerxpo.com/v2/index.php

www.bangladeshmarketplace.com/

A.2 C2C

www.clickbd.com

www.ekhanei.com

www.webbangladesh.com

www.bdbazaar.com

www.ekushyboimela.com

www.bikroy.com

A.3 B2C

www.realestatebazaar.com.bd/

www.bdplace.com/

www.akhoni.com/dhaka.

www.hutbazar.com/

www.arfigift.com/

www.bajna.com/?f

www.banglabazar.com/

www.deshigreetings.com/

www.dhakasharee.com

www.bdbazar.com/nshop/

www.beepsmart.net/Shop/

www.ancbooks.com/

www.mayerbazar.com/

www.boromela.com/

www.tazabazar.com/

B. E-shop selling agricultural products in Bangladesh

B.1 B2C

Meenabazar

www.meenabazar.com.bd/

Chaldal

www.chaldal.com/

Lalnil gift

www.lalnilgift.com/cake-food/fruits/fruits-basket.html

Ushop.com

www.ushop.com.bd/FLOWER/

Deshi greetings

www.deshigreetings.com/

Bd gift.com

www.bdgift.com/

Upohar bd

www.upoharbd.com/fresh-fruits-and-juices/cat_77.html

Bd Haat

www.bdhaat.com/bdhaat/food/grocery/kacha-bazar.html

B.2 C2C

Bikroy.com

www.bikroy.com/en/food-agriculture-in-dhaka-division

B.3 B2B

Amar desh E-shop

www.amardesheshop.com/

Alibaba.com

www.alibaba.com/countrysearch/BD/agricultural-products.html

Source: e-business, 2015.