

**A STUDY OF B2C WEBSITES AND TRADITIONAL STORE IN BANGLADESH**

**BY**

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This Thesis Presented in Partial Fulfillment of the Requirements for the Degree  
of Master of Science in Computer Science and Engineering

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## **APPROVAL**

The Thesis Report “A Study of B2C Websites and Traditional Store in Bangladesh” submitted by Shahanara Khanam ID: 103-25-185, to the Department of Computer Science and Engineering, Daffodil International University, Dhaka, Bangladesh, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Master of Science in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on October, 11, 2012.

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## DECLARATION

I, hereby, declare that, this Thesis has been done by me under the supervision of **Dr. Md. Kabirul Islam, Associate Professor, Department of CSE** Daffodil International University. I also declare that neither this Thesis nor any part of this Thesis has been submitted elsewhere for award of any degree or diploma.

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## **Abstract**

There are more than half a dozen Business to Consumer (B2C) websites running online business in Bangladesh by selling requested items and providing home service to different locations. But no study has been done to analyze the prices of online products and how they differ from traditional stores. This study examined important features of four B2C websites (online stores), prices of 31 products from five major categories (grocery, fish, meat, vegetables, and cake) and difference of prices of each of these four online stores and the traditional store (super market) in Dhaka city. Moreover prices of 31 items of all the four B2C websites were also compared.

The objectives and the nature of the study lead to utilize descriptive research method that employs qualitative and quantitative techniques. For this study data were collected from four B2C websites, traditional store and customer service of the four websites. The results revealed eleven important features (for example registration, product information, interaction facility etc) of the B2C websites that increased user friendliness of the websites. This qualitative part of the results was verified by a group of students who are familiar with the online stores that increases the reliability of the findings. The findings also show that the prices of all 31 products of online store are higher than the traditional store and this pattern is consistent for all four websites. However substantial difference is found in case of some selected products. There are also differences of prices of all 31 products among the four online stores.

The data received from customer service of the websites suggested the reasons for very high prices of products were the collection charge incurred for each purchase, and maintenance cost of the websites. There was no scope to collect data from the customers of these websites because of the unavailability of their contacts which is a limitation of this study. Further research should address this limitation for better understanding of the B2C websites in Bangladesh.

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## 1.0 Introduction

The advent of the Internet and the increasing sophistication of the communication technology of the 21st century have made almost every aspect of our life possible electronically such as Education, Governance, Health, Commerce and Business etc. 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 [20]. It is a form of Electronic Commerce. The present status of E-commerce in Bangladesh is one step ahead of initial stage as electronic banking, electronic ticket, limited services of mobile banking, and virtual shopping are being conducted online.

More than half a dozen business to consumer (B2C) websites are running business to sell products online and organize home delivery in Dhaka city and some selected district headquarters in Bangladesh. Various categories of products such as grocery and vegetables, fish and meat, bakery and sweets, gifts, cloths etc are available to buy from a B2C website called online store. Most of the products have introduced with brand names. But it is perceived that many customers who have internet access are not aware of these online stores in Bangladesh. The residents of Dhaka have bitter experience of traffic rush in the city. They spend hours and hours on the street to reach their shopping mall or destination. Online shopping could be an alternative way to escape from this unpleasant situation.

Everyone is familiar with supermarket or shopping mall. Shopping at these markets or stores is called traditional shopping in this study. Traditional shopping has a lot of advantages. Seeing, touching, and smelling products are important factors for many people when they buy things. Most people would not buy a piece of expensive jewelry or dress only on the basis of a picture on a website. Shopping is also viewed as an entertainment by many people and it is a place for get together with family and friends.

In spite of certain advantages of traditional shopping, increasing popularity of shopping online many customers in western countries are reluctant to face inconvenience and crowds, incompetent shopping assistants in the store, going all the way to the shop only to find the product they are looking for [19]. 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 comparison shop [17]. Online shopping has also created better pricing and incentives in western countries. There are several options for payment for example credit card, billing to mobile phone, cash on delivery etc. Despite numerous benefits convenience, physical, performance and social factors may effect on the attitude toward online shopping [18].

In Bangladesh very limited research has been conducted into electronic commerce especially on online shopping. The purpose of this study is to discern important features of online stores in Bangladesh and to see how the prices of traditional store differ from the online stores.

## 2.0 Literature Review

### 2.1 Overview of an E-Commerce

Electronic commerce, commonly known as e-commerce, ecommerce, eCommerce or e-comm, refers to the buying and selling of products or services over electronic systems such as the Internet and other computer networks. Electronic commerce draws on such technologies as electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life-cycle, although it may encompass a wider range of technologies such as e-mail, mobile devices and telephones as well[1].

A large percentage of electronic commerce is conducted entirely in electronic form for virtual items such as access to premium content on a website, but mostly electronic commerce involves the transportation of physical items in some way. Online retailers are sometimes known as e-tailers and online retail is sometimes known as e-tail. Almost all big retailers are now electronically present on the World Wide Web. Electronic commerce that takes place between businesses is referred to as business-to-business or B2B. B2B can be open to all interested parties (e.g. commodity exchange) or limited to specific, pre-qualified participants (private electronic market). Electronic commerce that takes place between businesses and consumers, on the other hand, is referred to as business-to-consumer or B2C. This is the type of electronic commerce conducted by companies such as Amazon.com. Online shopping is a form of electronic commerce where the buyer is directly online to the seller's computer usually via the internet. There is often no intermediary service involved, and the sale or purchase transaction is completed electronically and interactively in real-time. However in some cases, an intermediary may be present in a sale or purchase transaction, or handling recurring or one-time purchase transactions for online games. Electronic commerce is generally considered to be the sales aspect of e-business. It also consists of the exchange of data to facilitate the financing and payment aspects of business transactions[1].

## 2.2 Application

Some common applications related to electronic commerce are the following:

- Document automation in supply chain and logistics
- Domestic and international payment systems
- Enterprise content management
- Group buying
- Automated online assistants
- Instant messaging
- Newsgroups
- Online shopping and order tracking
- Online banking
- Online office suites
- Shopping cart software
- Teleconferencing
- Electronic tickets

## 2.3 Types Of Website

Ecommerce can be broken into four main categories: B2B, B2C, C2B, and C2C.

- B2B(Business-to-Business)  
Companies doing business with each other such as manufacturers selling to distributors and wholesalers selling to retailers. Pricing is based on quantity of order and is often negotiable[2].
- B2C(Business-to-Consumer)  
Businesses selling to the general public typically through catalogs utilizing shopping cart software. By dollar volume, B2B takes the prize, however B2C is really what the average Joe has in mind with regards to ecommerce as a whole[2].

Having a hard time finding a book? Need to purchase a custom, high-end computer system? How about a first class, all-inclusive trip to a tropical island? With the advent of e-commerce, all three things can be purchased literally in minutes without human interaction. Oh how far we've come[2]!

- C2B(Consumer-to-Business)

A consumer posts his project with a set budget online and within hours companies review the consumer's requirements and bid on the project. The consumer reviews the bids and selects the company that will complete the project. Elance empowers consumers around the world by providing the meeting ground and platform for such transactions [2].

- C2C(Consumer-to-Consumer)

There are many sites offering free classifieds, auctions, and forums where individuals can buy and sell thanks to online payment systems like PayPal where people can send and receive money online with ease. eBay's auction service is a great example of where person-to-person transactions take place everyday since 1995.

Companies using internal networks to offer their employees products and services online--not necessarily online on the Web--are engaging in B2E (Business-to-Employee) e-commerce.

G2G (Government-to-Government), G2E (Government-to-Employee), G2B (Government-to-Business), B2G (Business-to-Government), G2C (Government-to-Citizen), C2G (Citizen-to-Government) are other forms of e-commerce that involve transactions with the government--from procurement to filing taxes to business registrations to renewing licenses. There are other categories of e-commerce out there, but they tend to be superfluous [2].

## **2.4 History of an e-commerce**

Originally, electronic commerce was identified as the facilitation of commercial transactions electronically, using technology such as Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These were both introduced in the late 1970s, allowing businesses to send commercial documents like purchase orders or invoices electronically. The growth and acceptance of credit cards, automated teller machines (ATM) and telephone banking in the 1980s

were also forms of electronic commerce. Another form of e-commerce was the airline reservation system typified by Sabre in the USA and Travicom in the UK.

From the 1990s onwards, electronic commerce would additionally include enterprise resource planning systems (ERP), data mining and data warehousing

In 1990, Tim Berners-Lee invented the World Wide Web web browser and transformed an academic telecommunication network into a worldwide everyman everyday communication system called internet/www. Commercial enterprise on the Internet was strictly prohibited by NSF until 1995.[1] Although the Internet became popular worldwide around 1994 with the adoption of Mosaic web browser, it took about five years to introduce security protocols and DSL allowing continual connection to the Internet. By the end of 2000, many European and American business companies offered their services through the World Wide Web. Since then people began to associate a word "ecommerce" with the ability of purchasing various goods through the Internet using secure protocols and electronic payment services[1].

2001: Alibaba.com achieved profitability in December 2001.

- 2002: eBay acquires PayPal for \$1.5 billion. Niche retail companies Wayfair and NetShops are founded with the concept of selling products through several targeted domains, rather than a central portal.
- 2003: Amazon.com posts first yearly profit.
- 2004: DHgate.com, China's first online b2b transaction platform, is established, forcing other b2b sites to move away from the "yellow pages" model.
- 2005: Yuval Tal founds Pioneer- a secure online payment distribution solution
- 2007: Business.com acquired by R.H. Donnelley for \$345 million.
- 2009: Zappos.com acquired by Amazon.com for \$928 million. Retail Convergence, operator of private sale website RueLaLa.com, acquired by GSI Commerce for \$180 million, plus up to \$170 million in earn-out payments based on performance through 2012.
- 2010: Groupon reportedly rejects a \$6 billion offer from Google. Instead, the group buying websites plans to go ahead with an IPO in mid-2011.

- 2011: Online payment and recurring billing services provider Vindicia, developer of the CashBox SaaS billing solution, is named the 20th fastest growing company in Silicon Valley.
- 2011: US eCommerce and Online Retail sales projected to reach \$197 billion, an increase of 12 percent over 2010. Quidsi.com, parent company of Diapers.com, acquired by Amazon.com for \$500 million in cash plus \$45 million in debt and other obligations GSI Commerce, a company specializing in creating, developing and running online shopping sites for brick and mortar businesses, acquired by eBay for \$2.4 billion.

Business models across the world also continue to change drastically with the advent of eCommerce and this change is not just restricted to USA. Other countries are also contributing to the growth of eCommerce. For example, the United Kingdom has the biggest e-commerce market in the world when measured by the amount spent per capita, even higher than the USA. The internet economy in UK is likely to grow by 10% between 2010 to 2015. This has led to changing dynamics for the advertising industry.

Amongst emerging economies, China's eCommerce presence continues to expand. With 384 million internet users, China's online shopping sales rose to \$36.6 billion in 2009 and one of the reasons behind the huge growth has been the improved trust level for shoppers. The Chinese retailers have been able to help consumers feel more comfortable shopping online. eCommerce is also expanding across the Middle East. Having recorded the world's fastest growth in internet usage between 2000 and 2009, the region is now home to more than 60 million internet users. Retail, travel and gaming are the region's top eCommerce segments, in spite of difficulties such as the lack of region-wide legal frameworks and logistical problems in cross-border transportation. E-Commerce has become an important tool for businesses worldwide not only to sell to customers but also to engage them[1].

## 2.5 Online Shopping Characteristics

Online shopping is a form of electronic commerce whereby consumers directly buy goods or services from a seller over the Internet without an intermediary service. An online shop, eshop, e-store, Internet shop, web shop, webs tore, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping centre. The process is called business-to-consumer (B2C) online shopping. When a business buys from another business it is called business-to-business (B2B) online shopping[5].

In 1990 Tim Berners-Lee created the first World Wide Web server and browser. It opened for commercial use in 1991. In 1994 other advances took place, such as online banking and the opening of an online pizza shop by Pizza Hut During that same year, Netscape introduced SSL encryption of data transferred online, which has become essential for secure online shopping. Also in 1994 the German company Intershop introduced its first online shopping system. In 1995 Amazon launched its online shopping site, and in 1996 eBay appeared. Online customers must have access to a computer and a method of payment.

In general, higher levels of education, income, and occupation of the head of the household correspond to more favorable perceptions of non-store shopping. Also, increased exposure to technology increases the probability of developing favorable attitudes towards new shopping channels.

In a December 2011 study Equation Research found that 87% of tablet users made an online transaction with their tablet device during the early holiday shopping season. 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.

Once a particular product has been found on the web site of the seller, most online retailers use shopping cart software to allow the consumer to accumulate multiple items and to adjust quantities, like filling a physical shopping cart or basket in a conventional store. A "checkout" process follows (continuing the physical-store analogy) in which payment and delivery information is collected, if necessary. Some stores allow consumers to sign up for a permanent

online account so that some or all of this information only needs to be entered once. The consumer often receives an e-mail confirmation once the transaction is complete. Less sophisticated stores may rely on consumers to phone or e-mail their orders (though credit card numbers are not accepted by e-mail, for security reasons).

## **2.6 Traditional Store Characteristics**

A big-box store (also supercenter, superstore, or megastore) is a physically large retail establishment, usually part of a chain. The term sometimes also refers, by extension, to the company that operates the store. Examples include large department stores such as Wall-mart and Target [6].

Large, free-standing, rectangular, generally single-floor structure built on a concrete slab. The flat roof and ceiling trusses are generally made of steel, the walls are concrete block clad in metal or masonry siding [6].

Floor space several times greater than traditional retailers in the sector, providing for a large amount of merchandise; in North America, generally more than 50,000 square feet (4650 m<sup>2</sup>), sometimes approaching 200,000 square feet (18,600 m<sup>2</sup>), though varying by sector and market. In countries where space is at a premium, such as the United Kingdom, the relevant numbers are smaller and stores are more likely to have two or more floors [6].

Generally, big-box stores can be broken down into two categories: general merchandise (examples include Wall-mart and Target), and specialty stores (such as Menards, Barnes and Noble, or Best Buy) which specialize in goods within a specific range, such as hardware, books, or electronics. In recent years, many traditional retailers—such as Tesco and Praktiker—have opened stores in the big-box-store format in an effort to compete with big-box chains, which are expanding internationally as their home markets reach maturity [6].

## **2.7 E-commerce in Bangladesh context**

Internet services are presently available in Bangladesh. Its usage for e-commerce by the Bangladeshi producers to export as well as to access inputs will be dependent on their willingness and ability to use this medium as well as that of the buyers of final products and the

sellers of intermediate goods and services. Business-to-Consumers (B2C) e-commerce is practically non-existent within Bangladesh, while a very limited level of Business-to-Business (B2B) and Business-to-Government (B2G) transactions exists. The potential for use of e-commerce by Bangladeshi consumers and businesses with foreign firms is much brighter, and can play an important role in boosting the country's exports. A significant volume of B2G is also possible, as the government remains the biggest spender[8].

### **2.7.1 Business-to-Consumer (B2C) Scenarios**

Business-to-Consumer (B2C) e-commerce is unlikely to be of much use in the foreseeable future in Bangladesh. At the domestic level, low per capita income, limited infrastructural facilities (e.g. low teledensity), weak legal environment (inadequate contract laws, poor implementation and enforcement), and lack of trust and confidence between business and consumers are going to hinder B2C. In the backdrop of such limitations, the low wage economy, with high levels of unemployment and underemployment, will continue to rely on the physical presence of buyers and sellers during a transaction in most cases. B2C for cross border trade is inhibited by the factors suggested for the domestic front. In addition, non-availability of international credit cards, foreign currency remittance restrictions, delays and informal payments at customs clearance even for small value and quantity items will discourage B2C[8].

### **2.7.2 Business-to-Business (B2B) Scenarios**

As mentioned before, the Business to Business (B2B) scenario prevails in Bangladesh to a very limited extent. The B2B scenario exists mostly in the export sector, especially in the Ready Made Garments (RMG) industry. RMG has the lion's share of the export earnings in Bangladesh, accounting for 75 percent of total exports. The current value of annual exports of the RMG sector is close to \$4.35 billion. The RMG sector has begun to use the Internet, and its dependence on e-commerce is likely to grow significantly in the coming years. E-commerce through the Internet is poised to be an effective business tool for the RMG exporters. The Internet would enable them to seek information about potential buyers as well as raw material suppliers. Similarly the practice of posting a website by individual producers has begun. Opening a website is a step towards the right direction. Also, the adherence of Bangladeshi firms to quality, labor and environmental standards (e.g. ISO 9000, QS 9000) can also be shared and highlighted through the Internet technology [8].

### **2.7.3 Business-to-Government (B2G) Scenarios**

The government is a major buyer of goods and services from the private sector. Typically, the government procures goods and services by inviting tenders. This has been the traditional method of any government procurement for goods and services. Tender notices are published in the major national dailies followed by selling the Request for Proposal (RFP) documents to the interested bidders. If any bidder seeks clarification on any aspect of the RFP, the customer is mandated to notify that clarification to all bidders by mail. In addition to costing money and taking time, such notification sometimes forces the customer extending the bid-closing deadline [8].

Bidders also obtain the RFP document “unofficially” for a comprehensive understanding of the ‘scope of work’ as well as for assessing their own capability. The availability of the RFP and other relevant documents on-line provides an alternate choice, thereby reducing the monopoly rent that can be extracted. In order to prevent such unfair practice, the Bangladesh Telegraph and Telephone Board (BTTB) initiated publishing the RFP documents of selected projects in its website. This immediately stopped the illicit practice of unofficially selling the RFP document, and only competent bidders were able to procure the RFP documents. In addition to reducing the extra administrative burden of BTTB, it also enabled BTTB to close those bids within a reasonable timeframe. The posting of the RFP documents on the Web is however an isolated effort being initiated by a few BTTB officials.

## **2.8 E-Commerce in Different Sector in Bangladesh**

Despite being a under developed country, selected segments of the Bangladeshi business community has embraced technology with reasonable success. The Facsimile in the 1980’s and mobile telephones in the 1990’s popularized modern technology in the mass market. Personal computers and the Internet are also emerging as day-to-day business tools. These positive indicators are favoring the prospects of e-commerce in Bangladesh[7]

### **2.8.1 Banking Sector**

In Bangladesh, electronic fund transfer is at an early stage and used on a very limited scale. Electronic banking, which is highly dependent on the application of IT, has been pioneered by the foreign commercial banks.

The local banks are yet to be fully automated. Most local banks use computers on a stand-alone basis. The extent of computerization in the local banks is limited to database management and electronic communication (through e-mails) only. A few foreign commercial banks and local banks are offering on-line banking facilities in the form of Automated Teller Machines (ATM) and local credit cards. Only one multi-national bank is now practicing on-line fund transfer between its branches, and two other local banks are supposed to introduce it within 2001. Also, the banks now offering ATM facilities have formed a common ATM pool. Under this system, a customer of any bank in the pool can receive the services using the same ATM[8].

## **2. 8.2 Education sector**

The universities of Bangladesh are already partly digitised. DB visualises that by 2021 all universities, colleges, high schools, primary schools, and madrasahs will have computerised connectivity. ICT is intended to be used as teaching-learning aids. After five years of schooling all students should have regular access to computers with internet facilities. The goal is to improve the quality of education. The use of automated library is spreading slowly in most universities, although they have to go a long way to be digital in the real sense. By 2021 the entire education sector should be digitized with third generation wireless technology [10].

## **2. 8.3 Health sector**

Under the Ministry of Health there are medical universities, colleges and hospitals in big cities. In addition, there are a large number of rural hospitals/clinics/healthcare service centre at district, Upazila, and Thana levels. However, most of these hospitals and clinics are not well equipped and their services are not of desirable quality. The number of qualified doctors and nurses is much less than required. Nor do they have required type of diagnostic equipment and operating theatres. Reportedly, the available facilities and medicines are often misused [10].

## **2.9 Constraints to E-Commerce in Bangladesh:**

Out of 64 districts, Internet services are available only in 6 major district headquarters. BTTB is planning to gradually roll out an IP network up to the 64 district headquarters. In January 2002, the Internet facilities were extended to 12 districts. The project is running on very fast and today

almost 40 plus districts are getting Internet facilities. Followings are the barriers of e-commerce in Bangladesh [7]:

- Very minimum number of users of web sites;
- Poor telecommunication infrastructure with limited fixed-line access, unreliable connectivity and low bandwidth (9K);
- High price of computer and hardware: The per capita income of our people is less than US\$520. But in order to buy a computer it is needed US\$500 and for this reason, it is beyond the capacity for a villager's to buy it.
- Lack of technically efficient personnel;
- Lack of investment in hardware and software;
- The banking infrastructure in terms of electronic payments and inter-bank connectivity is poor. As such, the customers of 5770 branches of the local banks are unable to operate their account with the other branches of the same bank. Inter bank transactions more cumbersome as the clearing-house of the central bank is not online. An inter-bank transaction may take even 2 weeks if the branches are different cities. Only branches of the private banks are interconnected with their respective head offices. They are also satisfactorily computerized. This represents only 25% of the entire banking sector.
- Small number of Credit Card users;
- Limitations of supportive legal system. Such as, exchange controls, protection of telecommunication monopolies, restrictive trade practice and prohibitions;
- Absence of cyber law;
- People's mindset and very slow and expensive Internet services;
- Enterprise managers' lack of initiative and leadership in taking advantage of e-commerce [7].

## **2.10 Challenges of E-commerce for Bangladesh**

- Network Infrastructure
- Intra-bank and Inter-bank Connectivity
- Local and Global
- Bank-Client Connectivity

- Security of transaction
- Banking mechanism
- Automation
- Convertibility of the Bangladesh currency
- Retention quota
- International credit cards
- Capacity Building: Human, Technical and Regulatory
- Quick Settlement, Online credit Information, Skilled e-Manpower, Regulatory Framework
- Investment
- Legal Infrastructure
- Currency Convertibility: Access to Global Finance
- E- Culture[7]

## 2.11 Latest Development About E-commerce

**Online Product catalogs:** With an online catalogue, you make it easy for your buyers to do business with you. Business info Bangladesh offers powerful, scalable, easy-to-use e-commerce development ...[11]

**Dynamic Shopping Cart and Secure Order Form:** Business info Bangladesh ready to make a database driven dynamic shopping cart and Secure Order Form which is appropriate for businesses that have large or frequently updated inventories...

**Online request for quote (RFQ) :** Business info Bangladesh Technologies offers a variety of online RFQ systems, from simple forms to powerful product configuration systems...

**Real-Time Credit Card Processing and Fraud Prevention:** Business info Bangladesh committed to give you a automated, quick, hassle-free and secure e-commerce experience ...

**Customer Management with Login:** Allow returning customers to retrieve and reorder & speed the checkout process with customer relations management ...

**Advanced, Customizable Ecommerce Search:** Perform advanced searches by keyword, manufacturer, vendor, price range or sale items ...

**Package/Shipment Tracking :** Business info Bangladesh can set up online order tracking system, by which patrons can check their package/shipment through online ...

**Real-Time Inventory and Database Solutions :** This is one of the most powerful tools available to online retailers today. Business info Bangladesh can provide you with a database of your products that provides automatically updated inventory, works with other e-commerce web site solutions ...

**Enhanced Product Displays :** When online shopping was in it's infancy; critics doubted that e-commerce would work for the majority of retail merchandise ...

**Customer Tracking and Database Solutions:** With customer tracking you will be able to keep an online database of your customers, their addresses, emails, preferences, and answers to any web site marketing questions they may have answered ...[11]

**Order Confirmations :** Business info Bangladesh can automate your site that send email confirmations after every order. The emails may contain thank you information with order confirmation id ...

**Site Specific Search Engines:** Online shoppers often want to find a specific item, checkout and go. They don't always have the time or the desire to browse through your entire online catalogue. If you have many products to offer, your web site should be searchable ...

E-Commerce provides you with a venue to sell your product or service without losing part of

your profit to distribution costs, retail stores or catalog printing. An E-Commerce website demand a good hosting with highest up-time & other e-commerce features like secure SSL, public key encryption protocols etc.

## **2.12 Finding from Previous Research**

In November 2006 1,275 e-Panel members who had shopped online during the previous 12 months responded to our online survey conducted by TNS. In January 2009, 93 per cent (970) of the 1,037 UK consumers responding to the TNS Online bus had shopped online in the previous twelve months.

An internet shopper said they have been spending less in the 12 months previous to January 2009 than they had in November 2006. The percentage who said they spent less than £100 had trebled from seven per cent to 21 per cent and the proportion who said they had spent £100 - £249 had nearly doubled from 15 per cent to 27 per cent. In contrast, the percentage saying they had spent more than £1,000 online fell by more than 50 per cent (32 per cent to 13 percent)[12].

While previous researchers examined Internet shoppers characteristics (Donahue & Garcia, 1999; Donahue & Gilli and, 1996) and others investigated website features (Kim & La Rose, 2003; Lohse & Spiller, 2000), respectively, the present research links these two with online buying activity. Specifically, usage of interactive e-commerce features connects shopping orientations and online buying behavior. This study showed that the interactive features of e-commerce websites play a pivotal role in most online buying activity regardless of one's shopping orientation.

Shoppers with recreational orientations utilize website features in order to pursue hedonic outcomes, and the excitement of an online sale or an enticing array of product offerings weakens their self-control, increasing unregulated buying activity. On the other hand, shoppers with utilitarian outcomes in mind tend to be directly led to buying behavior unmediated by the usage of interactive e-commerce features. This may be because consumers with convenience orientations shop with a specific purchase plan in mind, quickly locate the item, and proceed directly to the checkout. That may be also because they have already done their comparison shopping before they arrive at the site from which they planned to make the purchase or have

satisfied themselves that the site they regularly use has good deals. Therefore, shoppers with convenience orientations may not be out "window shopping" and may not waste time even on convenience features such as search engines, product reviews, or other convenience shopping features [4].

This study showed that convenience and recreational shopping orientations are linked to each other. Convenience and recreational shopping orientations were positively correlated, replicating Babin et al. study (1994)[4] of offline shopping, which showed that these two orientations might not be mutually exclusive. Convenience orientation also led to the usage of Web features associated with unregulated buying, which is shown by the fact that convenience orientation made a significant contribution to the usage of recreational shopping features in this study. Perhaps shoppers who visit websites with convenience orientations can be drawn into unregulated purchases through interactive features, which, in the end, feed unregulated buying. For example, shoppers who want to make efficient and time saving purchases may use a new product list as an efficient tool to locate the exact product they are planning to buy, reducing their search cost. For shoppers who approach websites with recreational orientations, on the other hand, the new product list could be used as bait for unplanned buying. However, this feature also creates a trap for the shoppers who are trying to do efficient shopping in that it undermines self-regulation, leading to unregulated buying. Thus, some of the shoppers who started shopping with convenience orientations may have been led down the path from recreational shopping feature to deficient self-regulation, which led to unregulated buying[4].

Perhaps, as some have suggested (Hoffman & Novak, 1996; Novak, Hoffman, & Duhachek, 2003; Novak, Hoffman, & Yung, 2000), consumers who utilize interactive features enter a seamless sequence of responses, a flow state in which their sense of time and reality becomes distorted and their self-control is diminished. In the present framework, flow states might be interpreted as an indication of deficient self-regulation, specifically a failure of the self-monitoring sub function of self-regulation. Lack of time pressure created by a flow state may also lead to unregulated buying (Beatty & Ferrell, 1998). So, the convenience of online shopping could facilitate unregulated buying proclivities that are present in nearly all consumers (cf. Cobb & Hoyer, 1986), as well rational consideration of minimizing search and transaction costs.

Overall, the present findings offer a challenge to explanations of the online shopping experience that emphasize economic convenience and the operation of an efficient electronic marketplace. Deficient self-regulation is the antithesis of that explanation. It indicates that online buying could be out of control and is either not being actively self-monitored or not being judged against rational standards of consumer efficiency. Even consumers who approach the Internet with a convenience orientation, who are presumably seeking the efficiencies that convenience maximization perspective speaks of, can have their self-regulation diminished by playing certain of the interactive features found at online stores [4].

We have presented a conversational dialog system for helping users shop for notebook computers. User studies comparing our conversational dialog system with a menu driven system have found that the conversational interface reduced the average number of clicks by 63% and the average interaction time by 33%. Based on our findings, it appears that for conversational Systems like ours, the sophistication of dialog management and the actual human computer interface are more important than the complexity of the natural language processing technique used. This is especially true for web-based systems where user queries are often brief and shallow linguistic processing seems to be adequate. For web-based systems, integrating the conversational interface with other interfaces (like menu-driven and search driven interfaces) for providing a complete and consistent user experience assumes greater importance. Many systems' fate has been decided not because they cannot handle complex linguistic constructions but because of the difficulties in porting such systems out of the research environments [13]. One possible explanation could be the similar cultural background and education levels of both samples.

### **2.13 Traditional Shopping Finding**

- Expense
- Inconvenient
- Difficulty in price
- Social interaction
- Face to face communication
- Shopping Experience: Touch and fell product

## **2.14 Customers Satisfaction Finding**

Customer satisfaction findings generally support the notion that buyers in the World have the tendency to display different motives in online shopping. In addition, gender also becomes less influential on online shopping motives when country actor is taken into consideration. Overall, both males and females are satisfied with their online shopping experience [14].

There are likely to be a number of factors other than country and gender that affect variance in user motivations for and satisfaction towards online shopping, such as internet experience, online shopping experience and occupation[14].

## **2.15 Customer Satisfaction Surveys**

Companies struggle to understand customer satisfaction and many now attempt to quantify it through customer satisfaction surveys. This allows them to construct business plans which appeal to their customers and, in turn, generate the greatest income for the company. Yet measuring satisfaction is difficult. Many companies still rely on methods like measuring sales and complaints. Whilst these methods do have value, they fall short of a customer satisfaction survey. Corporate business meetings frequently make reference to their own customer service ratings as well as those of their competitors [16].

A customer service review should aim to improve the experience of the customer. Things that need to be achieved by any survey include:

- Understanding what customers require and expect.
- Determining quality in comparison to competitors.
- Developing services and products.
- Examining trends and acting upon findings.

Careful consideration of what the organization is trying to accomplish and how the information will be utilized is essential, so that the results help the company to achieve their goals [16].

## **3.0 Methodology**

Research methodology generally referred to as research methods and techniques, usually encompasses the procedures followed to analyze and interpret the data gathered from different sources. Internet commerce or eCommerce is an integration of business and communication technology that is doing business through the internet. This study comprised collecting quantitative data on the internet and analyzing features of selected business to consumer websites who are doing business in Bangladesh. The study used descriptive research method that covers qualitative and quantitative techniques. Objectives of the study, an explanation of the appropriateness of the descriptive research method for this study, data collection, and data analysis are discussed in this chapter.

### **3.1 Objectives**

The objectives of the study are to:

1. Analyze the features of four business to consumer websites (online stores) which are providing services in Bangladesh
2. Compare the prices of online store and traditional store
3. Compare the prices of four online stores

### **3.2 Descriptive Research Method**

Descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation [25]. Descriptive research does not fit neatly into the definition of either quantitative or qualitative research methodologies, but instead it can utilize elements of both, often within the same study. The term descriptive research refers to the type of research question, design, and data analysis that will be applied to a given topic [24]. Despite, in electronic commerce it is crucial that researchers may devise a research method, by selecting a research technique, or combining several techniques and demonstrate the appropriateness of the method to the research sub-domain and research questions [23].

For the proposed study both qualitative and quantitative data are collected from the selected online stores. The qualitative data includes the features of selected online stores, interview data from the management of online stores. The quantitative data includes the prices of items or commodities of four online stores and the prices of same commodities of traditional store located in Dhaka city. So these techniques fit well with the present study.

Descriptive research can involve collections of quantitative information that can be tabulated along a continuum in numerical form, such as the prices of commodities of online stores and traditional store. This method of research also involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection[26]. It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. The quantitative data collected has been represented graphically to compare the prices of online stores and traditional store, and among the four online stores [24]. In line with these views statistical data analysis techniques are utilized in this study for example the prices of online store and traditional store, and difference between the prices of online stores are represented graphically.

### **3.3 Selection of Online Store**

There are at least ten online stores (B2C websites) available for giving services in Bangladesh. These websites sell almost all types of products which are available in the traditional store for example Dress, various types of gifts, electronics, mobile phone, watches, Chinese food, cake and pastry, fruits, vegetables, fish and meat, grocery items etc. However there are differences in product categories among the websites. Among the ten websites only four websites were selected on the basis of their product categories and items of products. The reason is to compare the prices of the same products of these online stores, and compare the prices of each of these online stores with the traditional store in Dhaka city. Each of the selected online stores is given a code for identification as A, B, C, and D. An example of home page of a selected website is given in figure 3.1.



Figure 3.1 Home page of an online store

The identity of the website is kept secret because of confidentiality. The home page is an example of the online site of this study. The home page has links with other related pages. Each of the web sites has several features for selling products to their customers. The list of products included in the online stores or web sites are available in the traditional store that is the super markets in Dhaka city. When order is placed by the online customers the products are taken from the traditional market and supplied to the destination requested by the customers.

### 3.4 Data Collection

For this study collection of data was done from different sources. These are: four online stores (web sites), traditional store that is super market in Dhaka city, and customer service of the online stores. The data collection processes are discussed below.

#### 3.4.1 Online Store

Two types of data were collected from the four web sites such as features of the web sites and prices of products. Each of the four websites (online stores) was searched and the features were listed for example customer registration, interaction facility, presentation of items etc. The features of all four web sites were then summarized. Another type of data collected from these

web sites was the prices of products/items. Prices of five categories of products were collected from these web sites. These are:

- i. Vegetables (ten items)
- ii. Groceries (six items)
- iii. Fish (five items)
- iv. Meat (six items) and
- v. Cake (four items)

The number of items chosen from each of the above five categories are mentioned with each category. Prices of a number of products were noted under each of the five product categories. For example rice, lentil, oil etc are the items of grocery category. The prices are given in both Bangladeshi Taka (BDT) and US Dollar (USD). For this study only BDT is noted. The prices of common items in the four web sites were collected for comparison. Prices of 31 items were noted from among the five product categories.

### ***3.4.2 Features of Websites***

Each of the four websites was searched separately to indentify features of the websites for example interaction facilities with the customer service, product information, quality of images etc. After finalizing the features of all the four websites ten computer science students were asked to search the same websites to verify the features. These students were also asked to comment on the user-friendly status of the websites. These students were familiar with the eCommerce websites. This method increases the reliability of the data as well as the findings.

### ***3.4.3 Traditional Store***

The traditional store is defined in this study as the super market or any other market where the customers go physically for buying products for their daily life. To compare the prices of online and traditional store the prices of all five categories of products as well as items were collected from the tradition store (super market) in Dhaka city. In doing so size, weight, packet, tube, bundle etc were taken into consideration for collecting the prices of items.

#### ***3.4.4 Interview with Customer Service of online store***

Interview questions were prepared to conduct interview with the customer service of the four online stores. The interview questions were related to the prices of products, payment method, delivery area, delivery charge, and customer information. The responses of the interviewee were noted at the time of interview.

### **3.5 Data Analysis**

For this study both qualitative and quantitative data analysis techniques were employed for analyzing data collected from online store, traditional store and customer service of the four online stores. Details of data analysis methods are given below.

#### ***3.5.1 Features of B2C website***

The features of online stores were analyzed qualitatively. In doing so the features of each of the four online stores were listed in a table with their little descriptions. The features were then compared and identify common and uncommon features. The feedback and comments received from the ten CSE students were considered to summarize the features. Finally a list of features was prepared. Each of the features was then explained with variations or exceptions found in different web sites. The comments made by the ten students who verified the features were noted.

#### ***3.5.2 Interview data***

The data collected from customer service of the online stores was also analyzed qualitatively. The transcript of each interview was prepared. Then same idea of each question was coded and summarized.

#### ***3.5.3 Prices of items of online and tradition store***

The prices of all 31 items taken from traditional store were compared with each of the four online stores. The comparison was shown by presenting tables (Appendix A) and graphs. The

differences of prices in BDT were calculated for each item and the percentages were shown. The prices of common items of four online stores were also compared.

A small group discussion with a statistician was conducted to select appropriate analysis techniques for comparison of the above set of data. It was discussed that in comparing prices of online and traditional store correlation is not appropriate because there is no dependency of the variables and in this case the variable is only the prices of products/items. Finally it was suggested to show the comparison using table and column/bar graph. Line diagram was also suggested but since the prices of products fluctuated because of level of prices and the graphs closed each other several times. So the idea of using scatter or line diagram was dropped.

The prices of four online stores were also compared. The data of each of the items for each of four online stores were entered into a table to show the differences. Bar graph was also created to show the differences.

### **3.6 Limitations of the Study**

The study was mainly based on the collection of data from online sources. Four business to consumer (B2C) websites was the main source of data collection. Other data collection sources were the traditional store or super market in Dhaka city, and customer service of the online stores. While conducting interviews with the customer service they were hesitant to provide information related to their business. On the other hand senior level staff was not available for conducting interviews. It was known that the owner of the web sites live in different overseas countries.

Initially it was planned to interview customers of the products but for confidentiality the customer service was reluctant to disclose the name and address of the customers of online stores. Data from the customers could enrich the findings of this study. In spite of these limitations the findings of this study is considered reliable and authentic as most of the data were collected from the online and traditional stores.

## 4.0 Results

The results chapter comprised three sections. In section 1 feature of online stores have been presented with suitable figure taken from the websites of the online stores. The second section is an overview of the prices of online and traditional store. The prices of traditional store are compared separately with each of the four online stores. The third section includes the comparison of prices of products online stores. The differences between the prices of the four stores are presented graphically in this section.

### 4.1 The Features of Online Store

The facilities for selling and buying of the four online stores were analyzed to identify the features of the websites. It has been found that all the eleven features are present in every online store except 'Real-time Chatting' and 'Customer feedback. The 'real time chatting' feature is present only in online store B and 'Customer feedback' is present in D. Quality of the common features of the websites may have differences in some aspects which are explained later in this section. For example 'quality of image' is a feature of all the four websites but the quality of image may vary to some extent among the four websites. The eleven features identified from the four websites are given in table 4.1. The features are described below.

#### 4.1.1 *Content Architecture*

Content architecture is the presentation of the contents and design of the webpage to make the online store user friendly and achieve goals of the electronic business. It has been found that the presentation of each feature of each of the online store including the list of products is well set. In the home page of the websites different category of products (fish, meat, cake, vegetables etc.) are placed on the left while other useful information such as sign up, delivery area, delivery of products, discounts are given in the top row. Each category of products includes a range of items and in the next stage the customers can view the detail information of each item (product).

Registration opportunity is available in the home page of the website. The home page is also designed with new arrivals, best selling products, and festival items. The commercials are given at the bottom of the page presumably to avoid indistinctness but exception was found in online store B. This website presented no commercial in the home page.

Table 4.1 Features of four online stores

SI no	Features	Online Store A	Online Store B	Online Store C	Online Store D
1	Content Architecture	√	√	√	√
2	Clarity Of Product Information	√	√	√	√
3	Quality Of Image	√	√	√	√
4	Registration	√	√	√	√
5	Interaction Facilities	√	√	√	√
6	Order Placement	√	√	√	√
7	Payment Option	√	√	√	√
8	Delivery Of Products	√	√	√	√
9	Shopping Cart Functionality	√	√	√	√
10	Real time Chatting	-	√	-	-
11	Customer Feedback	-	-	-	√

Note: The tick mark (√) indicates presence of the particular feature in that website

### 4.1.2 Clarity of Product Information

Clarity of product information means providing correct and reliable product information. A range of products are listed under each product category and each item is introduced with required information. An example is given from 'Cake' category. Kids cake is an item of this category (figure 4.1).



**Kids Cakes**

**Spider-man Cake**  
US\$ 56.67 per Unit  
Tk 4250.00 per Unit  
 Unit

Round Spider-man Cake  
Flavor: Vanilla  
Weight: 6 Pounds

**Item Code:** 2359  
**Delivery Area:** Dhaka  
**Product of** SkyLark

**Note:-**  
All cakes will be decorated to the same standard as the picture. Because our cakes are hand made, fresh to order, designs may vary slightly. The information you input while order will help determine the style.  
Minimum 2-3 days advance order required to deliver.

[Add to cart](#)

Figure 4.1 Kids cake with relevant product information

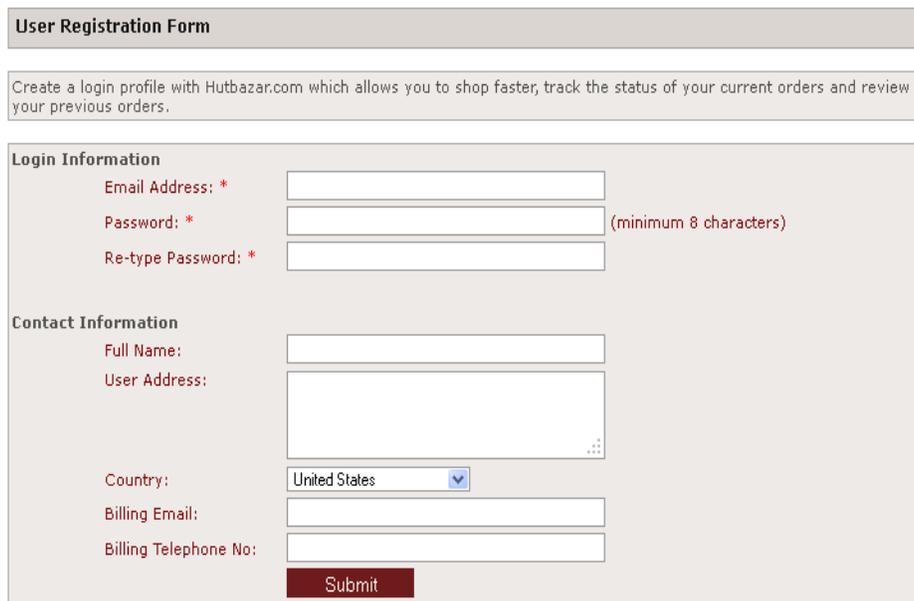
The information provided with this item includes brand name that is, where the item is available (SkyLark), name of the cake (spider-man cake) weight, item code, flavor, delivery area and price in both USD and BDT. Additionally more information is given in the note related to the decoration and advance order requirement. Most of the items have adequate information that the customers need to know before buying. Besides, images of items are given with most of the products. Some products had vague information. For example four pieces chicken sold in packet with a note 'size and weight may vary depends on availability'.

### 4.1.3 Quality of Images

As mention above, most of the items of online store have pictures/images. The images have small and large view. The images of the most of the items are well presented with actual brightness and shape (figure 4.1) but different stores have their own style of presentation. Some products contain special notes with the picture regarding design and color.

### 4.1.4 Registration

Registration is mandatory for buying products from online store that seemed easy for customers. A person requires only email address, telephone number, name and address and password to become a registered member of a B2C website (figure 4.2).



The image shows a 'User Registration Form' for Hutbazar.com. At the top, there is a title bar 'User Registration Form' and a descriptive text: 'Create a login profile with Hutbazar.com which allows you to shop faster, track the status of your current orders and review your previous orders.' The form is divided into two main sections: 'Login Information' and 'Contact Information'. Under 'Login Information', there are three input fields: 'Email Address: \*', 'Password: \*' (with a note '(minimum 8 characters)'), and 'Re-type Password: \*'. Under 'Contact Information', there are four input fields: 'Full Name:', 'User Address:', 'Country:' (with a dropdown menu currently showing 'United States'), 'Billing Email:', and 'Billing Telephone No:'. A dark red 'Submit' button is located at the bottom right of the form.

Upon writing the information the users are require to submit this online form for confirmation of registration. Registered users have to complete 'sign in' information (only email address and password) in the next visit for buying products. The information required for registration varies in different websites but the email and password are common in all the four websites.

#### ***4.1.5 Interaction facilities***

The communication facilities available for customers for buying products are only the email and phone including mobile phone. Customers may contact the customer service of the online stores with these facilities if they want more information. Customers may negotiate on the prices of the items over telephone. One website has real time chatting option for customers.

#### ***4.1.6 Order Placement***

The online store provides step by step short instructions for making order of products. It covers registration/sign up process, selection of items, and selection of delivery area with date and time, and payment procedure. The customers will receive an email of confirmation at the time of order placement and receipt of items.

#### ***4.1.7 Payment option***

Payment of online shopping is made mainly using credit card through paypal account. Data collected from customer service of online stores suggests that the customers who have paypal account can do online shopping using credit card. There is alternate arrangement of payment such as advance cash payment and bank account payment. The arrangement can be done after negotiation with the customer service over telephone.

#### ***4.1.8 Delivery of Products***

The online store charges delivery fees on the basis of the locations (district headquarters). No delivery charge is taken for Dhaka city. Each website has a list of delivery area with delivery charges. An example of delivery area with delivery charges is given in figure 4.3. The number of places and delivery charges varies in different websites but there are some common places in each websites.

Product Delivery Charge Rate	
The list below contains the delivery area names with delivery charge rate.	
Area Name ~ Charges	
+ Chandpur Town	~ Tk. 300
+ Chittagong	~ Tk. 800
+ Comilla Town	~ Tk. 400
+ Dhaka	~ Tk. 0
+ Feni	~ Tk. 500
+ Gazipur	~ Tk. 100
+ Jessore	~ Tk. 800
+ Khulna	~ Tk. 875
+ Kishoregonj	~ Tk. 350
+ Manikgonj	~ Tk. 300
+ Munshigonj	~ Tk. 275
+ Mymensingh	~ Tk. 450
+ Narayanganj	~ Tk. 250
+ Narshingdi	~ Tk. 250
+ Savar	~ Tk. 100
+ Sylhet	~ Tk. 800
+ Tangail	~ Tk. 475

Figure 4.3 Delivery area with charges offers by an online store

#### 4.1.9 Shopping Cart Functionality

Shopping cart functionality is a feature that allows the customers to select the buying items and store in the cart similar to a basket or trolley in case of a traditional store. At the bottom of each item there is an option 'add to cart' by clicking on this icon the item can be stored in the cart for later use. The shopping cart also provides the total purchased price of the selected items.

#### 4.1.10 Real Time Chatting

One of the four websites has real time chatting option. The signed in customers may interact with the customer service by exchanging messages. This could be related to the negotiation of prices, delivery area and charges, delivery locations, and quality of products.

#### 4.1.11 Customer Feedback

One of the websites (online store D) has customer feedback options where customers may make comments on the product quality or any other related issues by posting messages. It has been found that the customers provide feedback to improve their services and appreciate good qualities of products.

## ***4.2 Use Friendly Status of the websites***

As mentioned in the methodology chapter of this report that ten Computer Science and Engineering students who had eCommerce familiarity were asked to comment on the user friendly status of the websites that is, how the websites are useable without ambiguities. More specifically how the visitors would feel that the websites are easy to use for buying products. All the students commented that the four websites are user-friendly.

## **4.3 Difference between Prices of Traditional and Online Store**

The prices of four online stores (websites) were compared separately with the prices of traditional stores located in Dhaka city. A total of 31 items selected from four categories of products such as groceries, vegetables fish, meat and cakes were compared with the same products and brands of the traditional store. Comparison of prices between these two modes of stores is given below.

### ***4.3.1 Prices of Online Store A and Traditional Store***

Among 31 items, prices of all items of online store A were higher than the traditional store. The prices are shown in table 1 of Appendix A. It has been found that the fluctuation of prices was very high in some products. The prices varied from 38.4% (Rice, pran) to 420% (Bean). Out of 31 products prices of nine items were found double or more than double. Percentage of differences of prices of these items was calculated. These are: Flour (112%), Cabbage (212%), Chicken deshi (129%), Chicken broiler (180), Fish Hilsa (136%), Fish, Rupchada (100%), Shrimp (145%), Fish, Kachki (196%), and Cake, Chocolate (119%). These items belong to all four categories which are very essential in our daily life. The prices of five items of meat category and six items of are shown in figure 4.4.

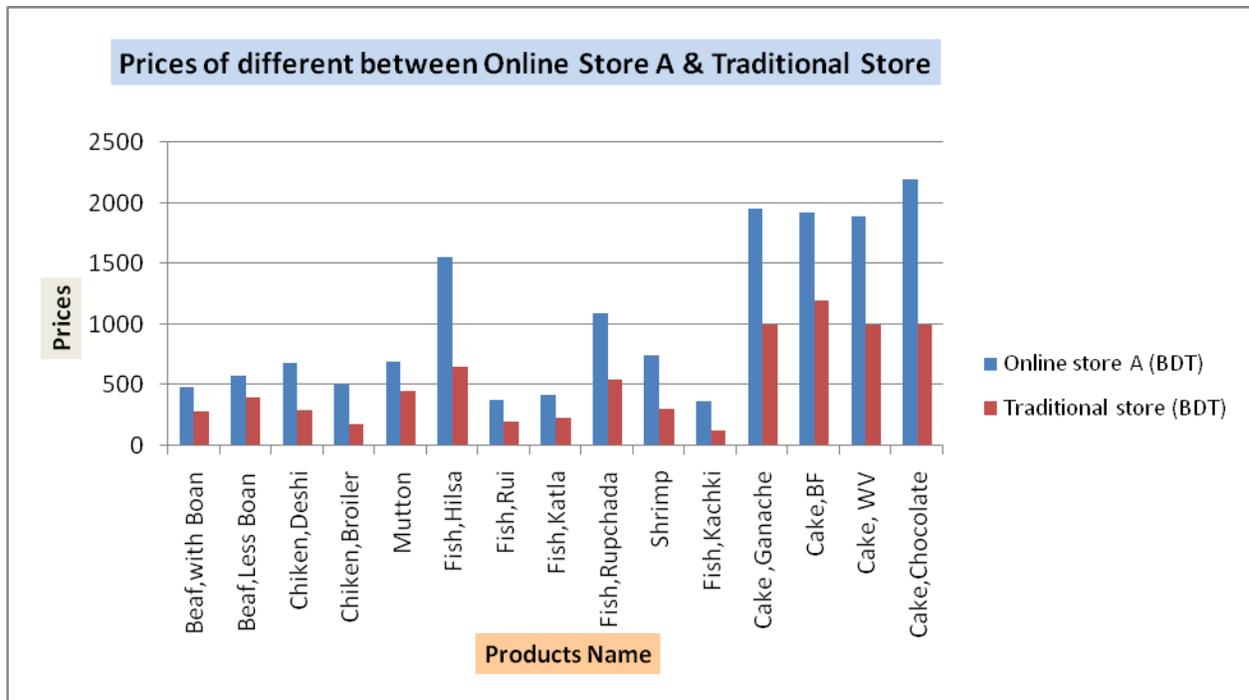


Figure 4.4 Prices of online store A and traditional store for meat, fish and cake category

Figure 4.4 indicates that the prices of 15 items of meat, fish, and cake category are very high than the traditional store. The graph also shows very high differences in Hilsa fish, Rupchada fish, and all items of cake. A similar comparison is shown for ten items of groceries and six items of vegetables in figure 4.5.

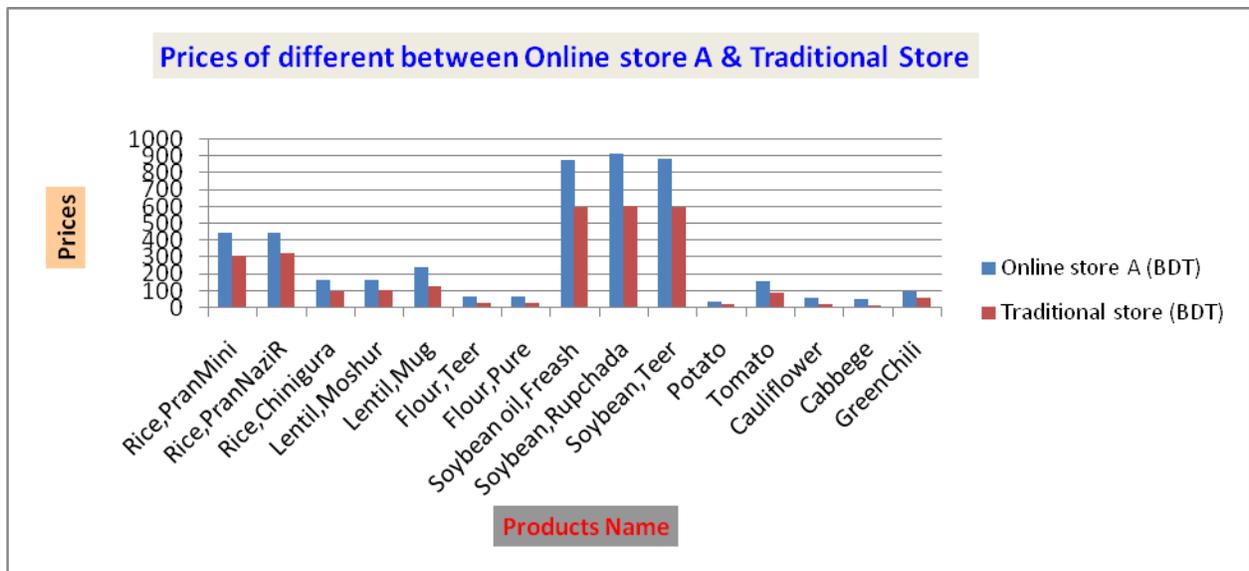


Figure 4.5 Prices of online store A and traditional store for grocery and vegetables category

In grocery and vegetable category the prices of all items of online store are higher than the traditional store. The graph and table 1 in Appendix A also indicates that the prices of some of the items are double or triple or more in online store for example bean.

### 4.3.2 Prices of Online Store B and Traditional Store

Figure 4.6 represents the prices of online store B and the traditional store for 15 items of fish, meat, and cake category. Prices of all 15 items are much higher than the traditional store. The figure indicates that two products of fish category such as Hilsa, and Shrimp are very high in the online store while the prices of chicken (broiler) are very high in online store. Similar to these categories prices of three items of cake category such as Cake (Ganache), Cake (WV), and Cake (chocolate) are high in online store.

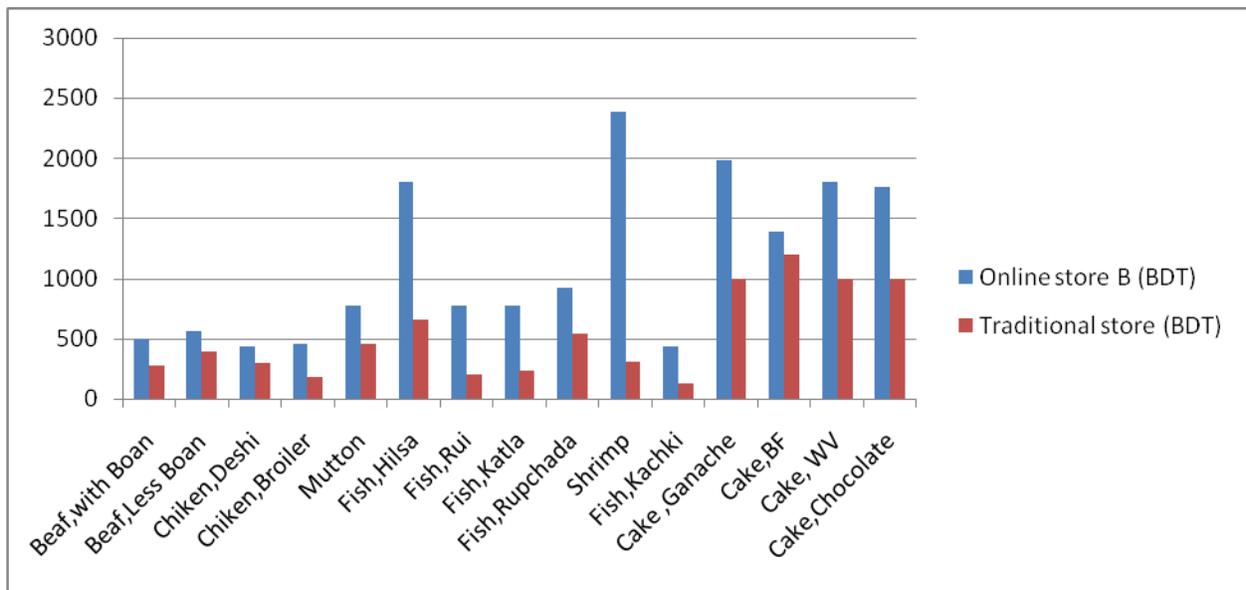


Figure 4.6 Prices of online store B and traditional store for fish, meat, and cake category

Among 31 items prices of rest of the 16 items of online store B and the traditional store are shown in figure 4.7. Prices of all 16 items of grocery, and vegetables are higher in online store. But substantial differences are found in most of the items in these two categories such as Rice (pranNazir), Rice (chinigura), Flour (pure), Lentil (mug), Lentil (moshur) Soyabean oil (rupchada), Soyabean oil (teer), Soyabean oil (fresh), Potato, Green Chilli, and Bean.

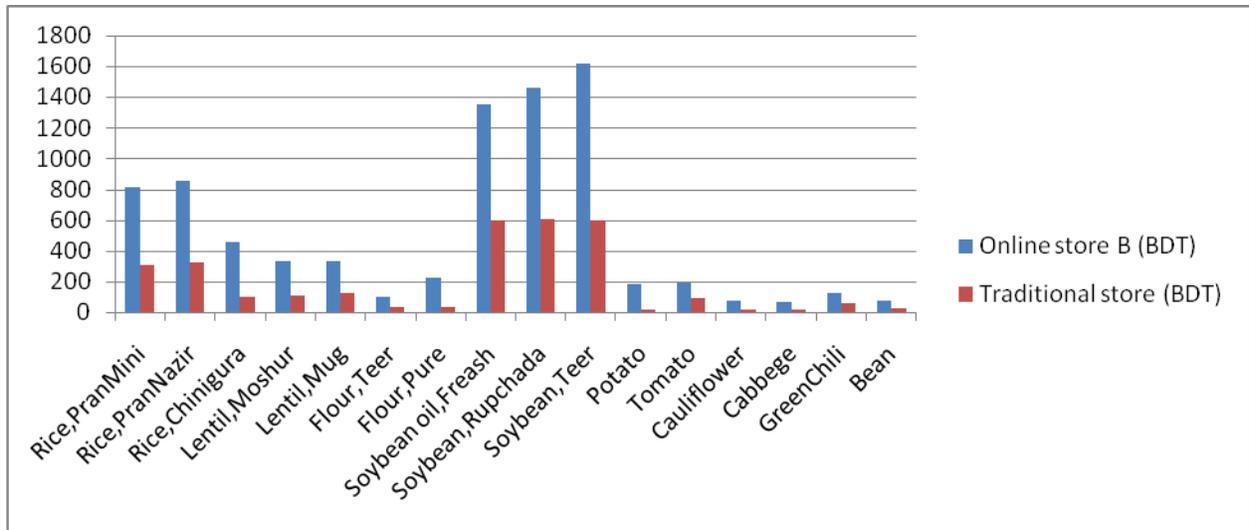


Figure 4.7 Prices of online store B and traditional store for grocery, and vegetables category

### 4.3.3 Prices of Online Store C and Traditional Store

Figure 4.8 shows the differences of prices of 15 items of online store C and the traditional store for three categories- meat, fish and cake. The figure indicates that the prices of online store C are higher than the traditional store for 15 items of meat, fish, and cake category. Substantial differences are found only in three items such as Fish (hilsa), Fish (katla), and Fish (kachki). Among these three items prices of Fish (hilsa) are seen exceptionally high. Prices of other 12 items have a range of differences with the traditional store.

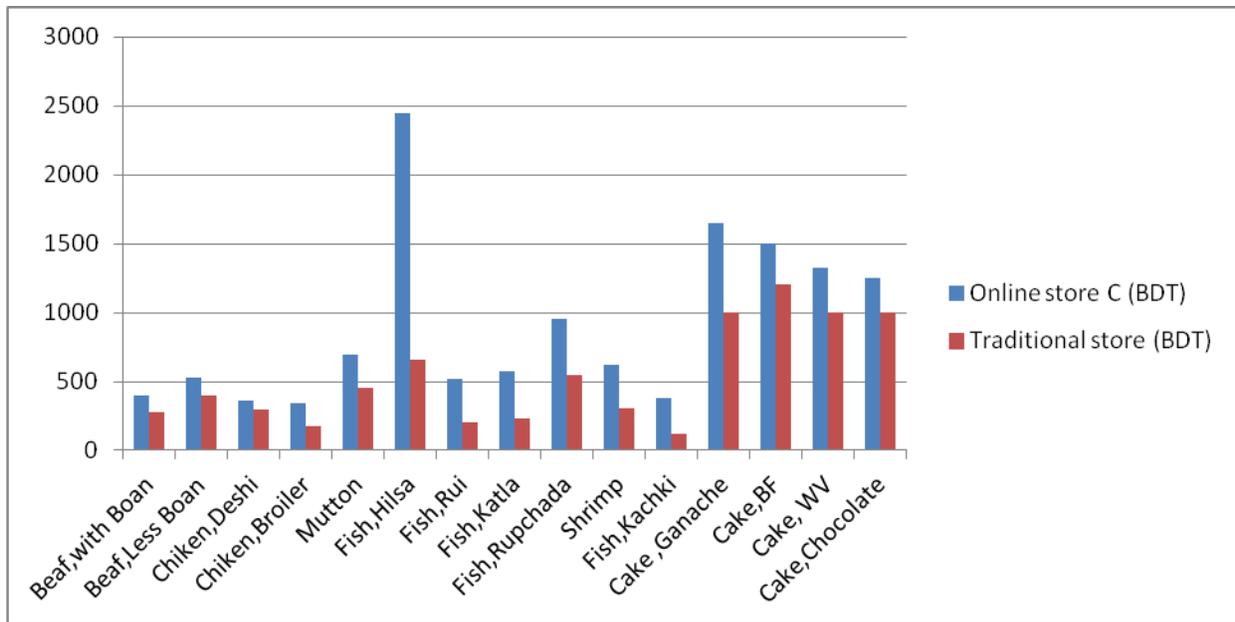


Figure 4.8 Prices of online store C and traditional store for meat, fish, and cake category

Prices of 16 items of grocery, and vegetables for online store C and the traditional store are given in figure 4.9. Similar to the other three categories of online store C the prices of grocery and vegetables are higher than the traditional store. However differences are found low in most of the items except Flour (pure), Cauliflower, and bean. Very negligible difference is found in Tomato which is an item of vegetables.

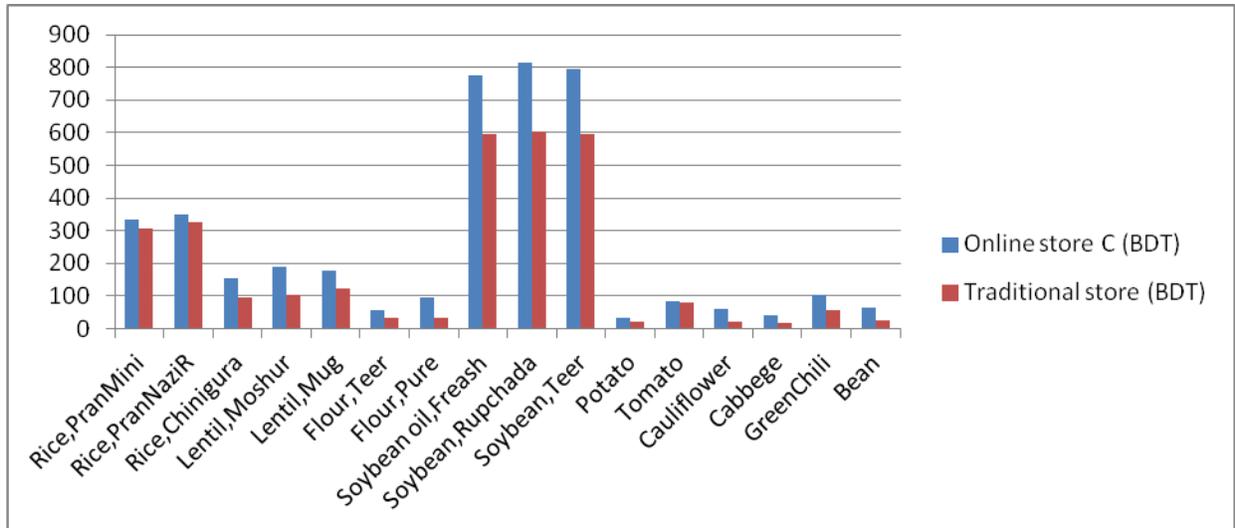


Figure 4.9 Prices of online store C and traditional store for grocery, and vegetables category

#### 4.3.4 Prices of Online Store D and Traditional Store

Prices of 15 items of online store D and the traditional store for meat, fish and cake categories are shown in figure 4.10. Similar to other three online stores the prices of online store D are higher than the traditional store. However the prices of some of the items are substantially high such as Chicken (broiler), Fish (hilsa), Fish (rupchada), Shrimp, Fish (kachki) and Cake (ganache). Prices of other items of the above three categories are also high compared to the prices of the traditional store.

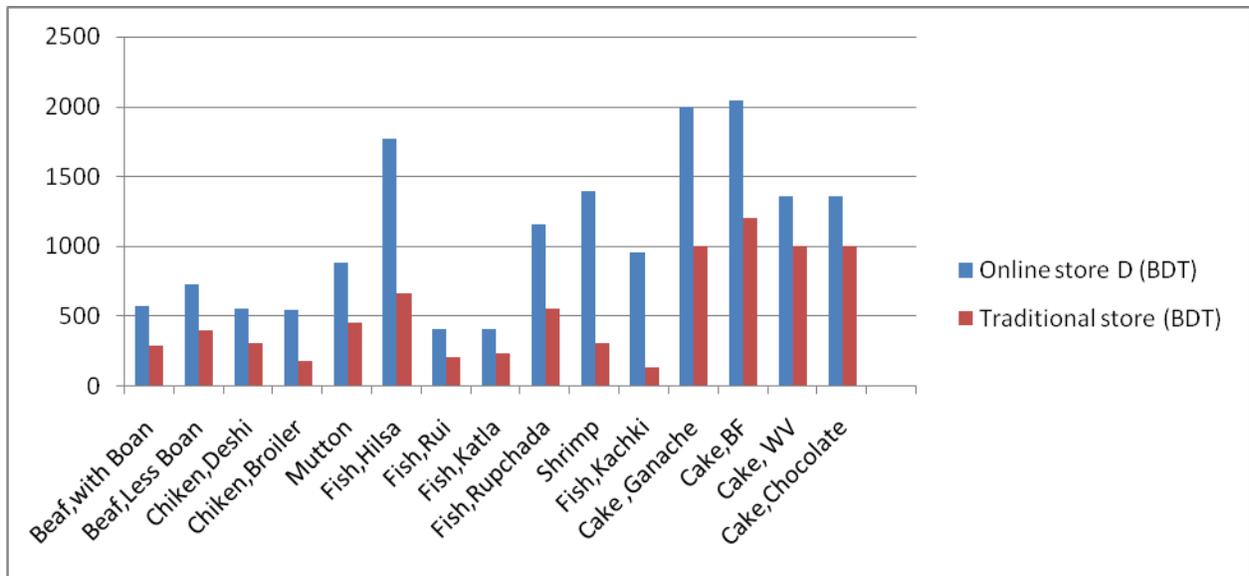


Figure 4.10 Prices of online store D and traditional store for meat, fish, and cake category

Prices of vegetables and grocery categories of online store D and the traditional store are shown in figure 4.11. The figure indicates that the prices of all 16 items for the above two categories are high than the traditional store. But some of the items have substantially high price. These are Lentil (mug), Soybean oil (fresh), Soybean oil (teer), Tomato, Green chili, and Bean.

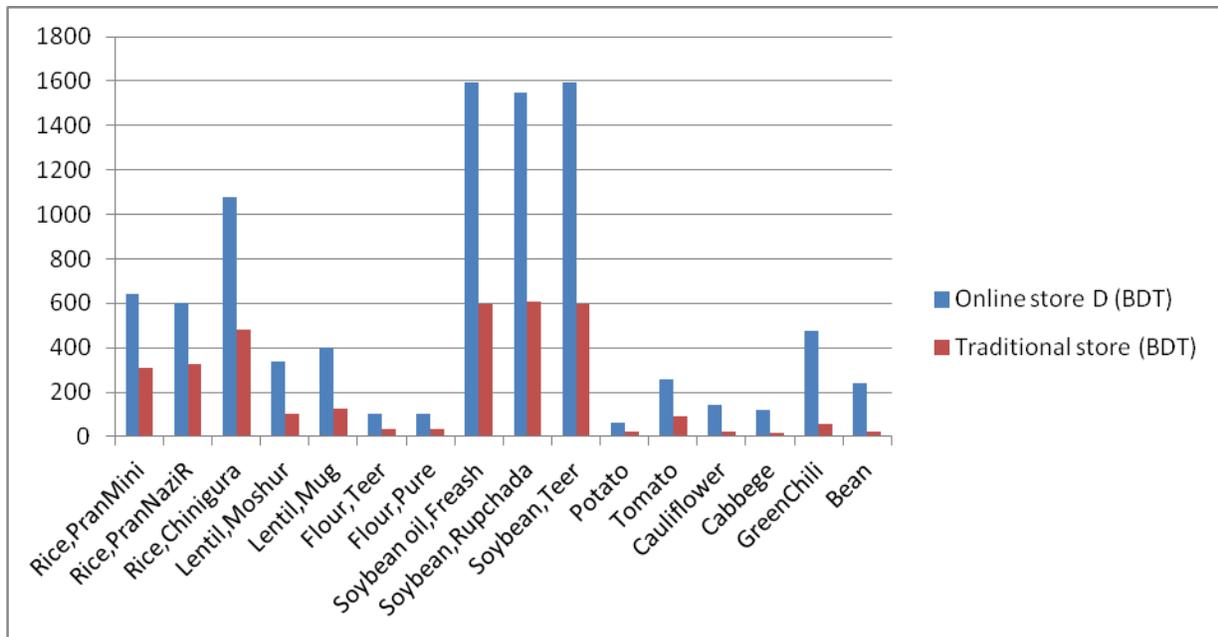


Figure 4.11 Prices of online store D and traditional store for grocery, and vegetables category

The results presented in this section indicates that the prices of online store are higher than the traditional store which is consistent in all four online stores that is four Business to Consumer (B2C) websites. Prices of some of the items are substantially high in some of the items in each of the five different categories.

#### 4.4 Variation of Prices in Four Online Stores

Analysis was done to show the variation of prices of 31 items among the four online stores. This variation of prices is shown using line graph for each of the five product categories separately. Figure 4.12 shows the variation of prices of five items of meat category. The figure indicates highest prices of the five items in online store D and lowest in online store A. Second and third highest prices of products were in online store C and D respectively. The graph also shows substantial variation of prices between online store D and A.



Figure 4.12 Variation of prices of four online stores for meat category

Variation of prices of four online stores A, B, C, and D for fish category is shown in figure 4.13. Similar to meat category highest prices of the items was found in online store D and lowest in online store A. In this category variation of prices of four items was close but large variation of prices exists in Fish (hilsa) and Shrimp.

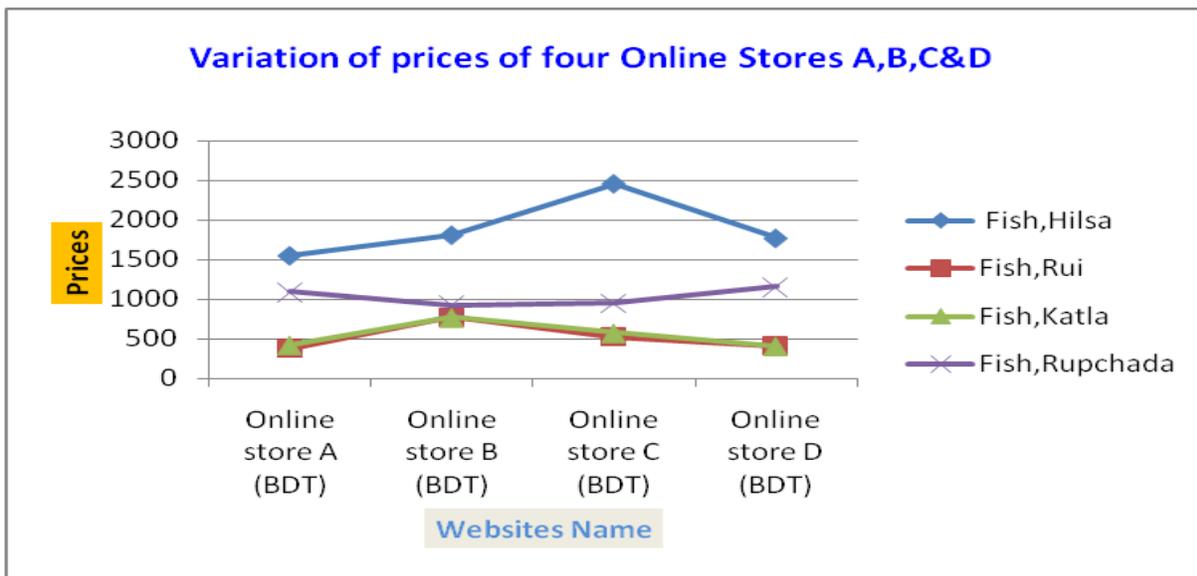


Figure 4.13 Variation of prices of four online stores for fish category

Among ten items of grocery category variation of prices of eight items was very close in online store A, B, C, and D but substantial variation is found in three items between online store A and D (figure 4.14). Prices of these three items were close in online store B and C. These are three types of soybean oil.

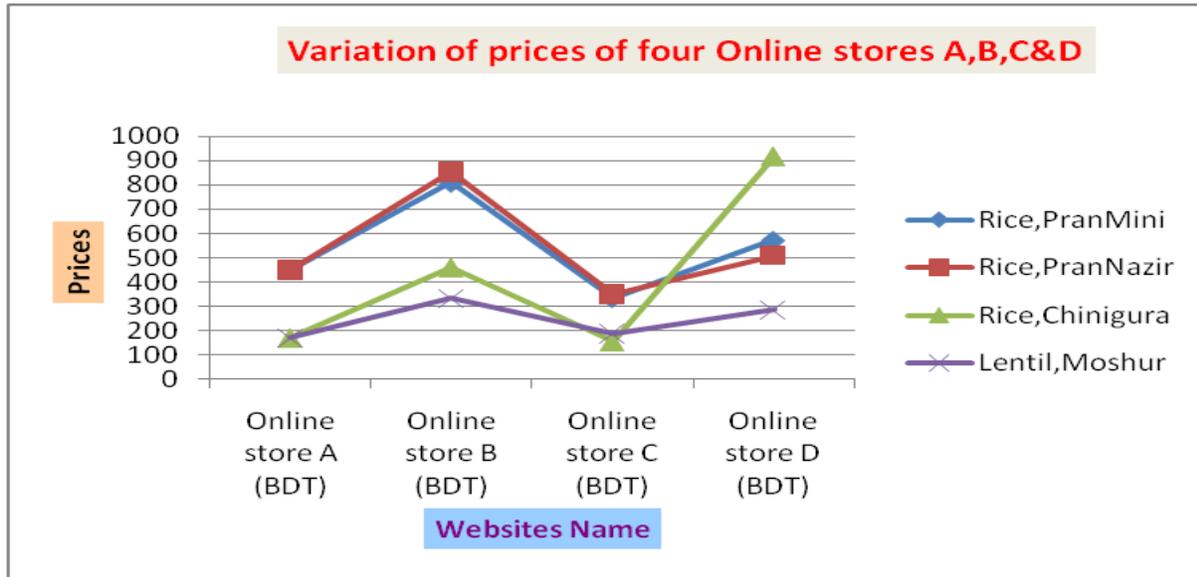


Figure 4.14 Variation of prices of four online stores for grocery category

Variation of prices of vegetables category is shown in figure 4.15. Among six items of vegetables category prices of four items are comparatively low in the four online stores. These are potato, cauliflower, cabbage, and bean. Substantial variation of prices of tomato and green chili is found in online store A, and D. Again prices of all six items in this category were found very close in online store B and C.



Figure 4.15 Variation of prices of four online stores for vegetables category

Variation of prices of four items of cake category is shown in figure 4.16. The figure indicates same pattern of all four graphs of prices of four items. The variation of prices is high between the four online stores. Moreover substantial variation exists between online store A and D.

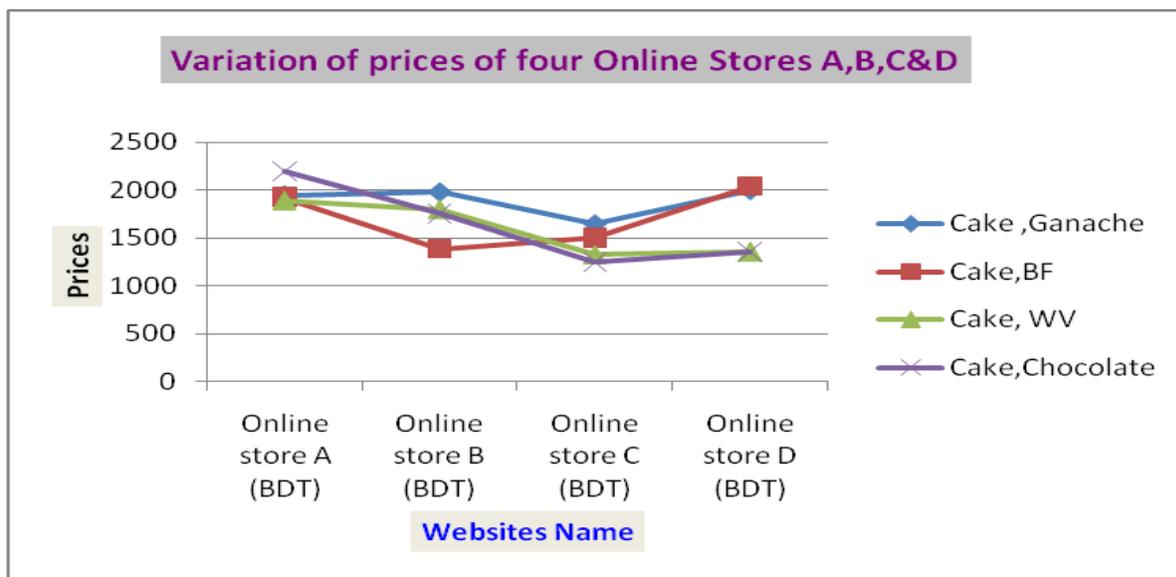


Figure 4.16 Variation of prices of four online stores for cake category

The results in this section indicate that there are variations of prices for all categories of products between the online stores. Different patterns of variations found in different category of products. Highest prices of items for all five categories were found in online store D and lowest in online store A. On the other hand, prices of online store C were more than the online store B

which is consistent for 31 items of five categories. But the variation of prices of these two stores was low.

### **5. Reasons for higher prices in online store**

As mentioned earlier that telephone interview was conducted with customer service each of the four B2C website to understand the higher prices of products, customer of the websites and the maintenance of the stores. The interview data suggested that collection charge for each purchase and maintenance costs of the websites are the reasons for higher prices of products of the online stores. Most of the customers of the websites are staying in overseas countries who place order for delivering products to their relatives in Bangladesh.

## 5.0 Discussion and Conclusion

The main purpose of this study was to investigate the prices of products sold by Business to Consumer (B2C) stores in Bangladesh and how they differ from traditional store that is super market in Dhaka city. The features of these eCommerce websites and variation of prices of products among the four B2C websites selected for this study were also examined. Descriptive research method was selected for this study which employed qualitative and quantitative techniques. The data were collected from the selected B2C websites, traditional stores in Dhaka city and customer service centre of the websites in Dhaka city by conducting telephone interview.

The excellent features of the Business to Consumer websites (appropriate product information including images, interaction facilities, flexible payment options, easy registration etc) in Bangladesh appear uncomplicated and may not involve much time to go through the website and place order for buying. These features may capture interest of the customers, make buying simple and secure, and finally make lasting relationship with the online customers (27). Conversely, complex features of an eCommerce website may increase customer's transaction costs and reduce customer's purchase intention (28). Moreover the results suggested user friendliness of the websites. The presentation of products with pictures, relevant information, and payment process are transparent.

Despite the above features and use friendliness the websites, the prices of the products may frustrate the customers as it is very high compared to the prices in the super markets in Dhaka city. The findings show that the prices of all 31 products of online store are higher than the traditional store and this pattern is consistent for all four websites. This pattern of higher prices in eCommerce websites in Bangladesh is not consistent with the developed countries (17). In developed countries the prices of online and traditional store are almost same. In some cases the prices of online store may increase in little amount because of the delivery charges (19). Moreover in this study substantial difference is found in case of some selected products. There are also differences of prices of all 31 products among the four online stores. This pattern of

variation of prices resembles with the prices of products in different super markets (traditional stores) but the nature of variation may be somewhat different in the two modes of shopping.

There could be several reasons for higher prices of products in online store. Since most of the customers are living overseas and buying products for their relatives in Bangladesh, apparently the number is quite less than the traditional store which may incur price hike in online products to adjust maintenance cost of the website. On the other hand the exchange rate of foreign currency (Dollar) in DBT is much higher which may impact on the increase of prices of online products than the traditional store. Furthermore collection charge is involved in online payment process as reported by the customer service.

However, the findings of the study show that online shopping is still expensive for the local customers as they are purchasing essentials in DBT instead of U.S. Dollar. The customers in Dhaka city may be attracted and encouraged by reducing the prices of the online stores which may release them from travelling hassle and spending valuable time in the distressing traffic jam.

Initiative is required to boost consumers purchase intention and trust on online shopping [22]. The owners of the online stores and the policy makers in the government may come forward to make this promising sector more attractive and popular to put forward our eCommerce status to achieve the dream of ICT supported Bangladesh.

Finally the findings of the study and the discussions above may suggest that:

The online stores (B2C websites) which provide services in Bangladesh are user-friendly and have excellent features for selling and buying but the prices are very high compared to the traditional store which may de-motivate customers for online shopping. However appropriate initiative may advance online shopping as well as eCommerce situation in Bangladesh

Further research is required to analyze the prices of other online stores and their product categories for broader understanding of online shopping in Bangladesh. In this study interview with online customers was not possible for unavailability of their addresses.

## Appendix A

Prices of flowing four online stores:

1. Online Store (A)
2. Online Store (B)
3. Online Store (C)
4. Online Store (D)

**Table 1. Difference between prices of traditional store and online store A**

Sl no/ Product	Online Store (BDT)	Traditional Store (BDT)	Difference (BDT)	Percent (%)
1.Rice,Pran Minicate	450	308/ 5 Kg	142	46.1
2.Rice,Pran Nazirshail	450	325/ 5 Kg	125	38.4
3.Rice,Pran Chinigura	170	96/ kg	74	77.0
4.Lentil, Moshur dal Deshi	170	105/ kg	65	61.90
5. Lentil, Mug Dal Deshi	240	125/kg	115	92.0
6.Flour,Teer	65	33/ kg	32	97.0
7. Flour,Pure	70	33/kg	37	112.12
8.Soybean oil,Freash	880	595/ 5 kg	285	47.89
9.Soybean oil,Rupchada	920	605/ 5 kg	315	52.06
10.Soybean oil,Teer	890	595/ 5 kg	295	49.57
11. Potato	35	20/kg	15	75.0
12.Tomato	160	90/kg	70	77.77
13.Cauliflower	60	20/pcs	40	200
14.Cabbege	50	16/pcs	34	212.5
15.GreenChili	100	57/kg	43	75.4
16.Bean	130	25/kg	105	420.0
17.Beaf,with Boan	480	280/kg	200	71.42
18.Beaf,Less Boan	580	395/kg	185	46.83
19.Chiken,Deshi	685	299/kg	386	129.09
20.Chiken,Broiler	500	178/kg	322	180.89
21.Mutton	690	452/kg	238	52.65
22. Fish,Hilsa	1550	655/kg	895	136.64
23. Fish,Rui	380	200/kg	180	90.0
24. Fish,Katla	420	228/kg	192	84.21
25. Fish,Rupchada	1090	545/kg	545	100.0
26. Fish ,Shirimp	750	305/kg	445	145.90
27. Fish,Kachki	370	125/kg	245	196.0
28. Cake ,Ganache	1950	1000/2 lb	950	95.0
29 Cake,Black Forest	1925	1200/2 lb	725	60.41
30. Cake ,White Vanilla	1890	1000/ 2 lb	890	89.0
31. Cake ,Chocolate Mousse	2195	1000/2 lb	1195	119.5

*Note: The prices were collected on 15/11/2011. Items 1-10:Grocery, 10-16:Vegetables, 17-21 Meat, 22-27: Fish, and 28-31 Cake category.*

**Table 2. Difference between prices of traditional store and online store B**

Sl no/ Product	Online Store (BDT)	Traditional Store (BDT)	Difference (BDT)	Percent (%)
1.Rice,Pran Minicate	810	308/ 5 Kg	502	192.20
2.Rice,Pran Nazirshail	855	325/5Kg	530	192.30
3.Rice,Pran Chinigura	460	96/ kg	364	4333.33
4.Lentil, Moshur dal Deshi	332	105/ kg	227	250.47
5. Lentil, Mug Dal Deshi	332	125/kg	207	194.4
6.Flour,Teer	103	33/ kg	70	248.48
7. Flour,Pure	225	33/kg	192	657.0
8.Soybean oil,Freash	1350	595/ 5 kg	755	152.10
9.Soybean oil,Rupchada	1462	605/ 5 kg	857	168.50
10.Soybean oil,Teer	1620	595/ 5 kg	1025	202.52
11. Potato	180	20/kg	160	900.0
12.Tomato	189	90/kg	99	133.33
13.Cauliflower	72	20/pcs	52	230
14.Cabbege	63	16/pcs	47	337.5
15.GreenChili	126	57/kg	69	145.62
16.Bean	76	25/kg	51	240.0
17.Beaf,with Boan	500	280/kg	220	98.57
18.Beaf,Less Boan	558	395/kg	163	57.0
19.Chiken,Deshi	432	299/kg	133	60.53
20.Chiken,Broiler	460	178/kg	282	187.64
21.Mutton	769	452/kg	317	89.15
22.Fish,Hilsa	1807	655/kg	1152	206.56
23.Fish,Rui	769	200/kg	569	327.5
24.Fish,Katla	769	228/kg	541	275.0
25.Fish,Rupchada	923	545/kg	378	88.25
26.Fish,Shirimp	2387	305/kg	2082	769.50
27.Fish,Kachki	432	125/kg	307	284.0
28.Cake ,Ganache	1980	1000/2 lb	980	120.0
29.Cake ,Black Forest	1386	1200/2 lb	186	28.33
30.Cake ,White Vanilla	1800	1000/ 2 lb	800	100.0
31.Cake ,Chocolate Mousse	1756	1000/2 lb	756	95.1

*Note: The prices were collected on 15/11/2011. Items 1-10:Grocery, 10-16:Vegetables, 17-21 Meat, 22-27: Fish, and 28-31 Cake category.*

**Table 3. Difference between prices of traditional store and online store C**

Sl no/ Product	Online Store (BDT)	Traditional Store (BDT)	Difference (BDT)	Percent (%)
1.Rice,Pran Minicate	335	308/5 Kg	27	8.76
2.Rice,Pran Nazirshail	350	325/5Kg	25	7.69
3.Rice,Pran Chinigura	155	96/kg	59	61.45
4.Lentil, Moshur dal Deshi	188	105/ kg	83	79.04
5. Lentil, Mug Dal Deshi	179	125/kg	54	43.2
6.Flour,Teer	55	33/ kg	22	66.66
7. Flour,Pure	96	33/kg	63	190.90
8.Soybean oil,Freash	775	595/ 5 kg	180	30.25
9.Soybean oil,Rupchada	815	605/ 5 kg	210	34.71
10.Soybean oil,Teer	795	595/ 5 kg	200	33.61
11. Potato	35	20/kg	15	75.0
12.Tomato	85	80/kg	5	6.25
13.Cauliflower	59	20/pcs	39	195.0
14.Cabbege	40	16/pcs	24	150.0
15.GreenChili	105	57/kg	48	84.22
16.Bean	65	25/kg	40	160.0
17.Beaf,with Boan	399	280/kg	119	42.5
18.Beaf,Less Boan	525	395/kg	130	32.92
19.Chiken,Deshi	365	299/kg	66	22.88
20.Chiken,Broiler	345	178/kg	167	93.83
21.Mutton	699	452/kg	247	54.64
22.Fish,Hilsa	2450	655/kg	1795	274.5
23.Fish,Rui	520	200/kg	320	160.0
24.Fish,Katla	575	228/kg	347	152.20
25.Fish,Rupchada	950	545/kg	405	74.32
26.Fish,Shirimp	625	305/kg	320	104.92
27.Fish,Kachki	380	125/kg	255	204.0
28. Cake ,Ganache	1650	1000/2 lb	650	65.0
29. Cake ,Black Forest	1500	1200/2 lb	300	25.0
30. Cake ,White Vanilla	1326	1000/ 2 lb	326	32.6
31. Cake ,Chocolate Mousse	1250	1000/2 lb	250	25.0

*Note: The prices were collected on 15/11/2011. Items 1-10: Grocery, 10-16: Vegetables, 17-21 Meat, 22-27: Fish, and 28-31 Cake category.*

**Table 4. Difference between prices of traditional store and online store D**

Sl no/ Product	Online Store (BDT)	Traditional Store (BDT)	Difference (BDT)	Percent (%)
1.Rice,Pran Minicate	573	308/ 5 Kg	265	147.46
2.Rice,Pran Nazirshail	510	325/ 5Kg	235	84.61
3.Rice,Pran Chinigura	917	480/ kg	437	124.80
4.Lentil, Moshur dal Deshi	284	105/ kg	230	219.4
5. Lentil, Mug Dal Deshi	339	125/kg	214	219.2
6.Flour,Teer	85	33/ kg	52	203.03
7. Flour,Pure	85	33/kg	52	203.03
8.Soybean oil,Frash	1356	595/ 5 kg	761	168.23
9.Soybean oil,Rupchada	1316	605/ 5 kg	711	156.3
10.Soybean oil,Teer	1356	595/ 5 kg	761	168.3
11. Potato	53	20/kg	33	215.0
12.Tomato	216	90/kg	126	183.33
13.Cauliflower	120	20/pcs	100	610.0
14.Cabbege	101	16/pcs	85	643.45
15.GreenChili	406	57/kg	349	738.60
16.Bean	203	25/kg	178	856.0
17.Beaf,with Boan	570	280/kg	290	139.64
18.Beaf,Less Boan	720	395/kg	325	114.43
19.Chiken,Deshi	552	299/kg	253	117.40
20.Chiken,Broiler	543	178/kg	365	258.99
21.Mutton	883	452/kg	431	129.87
22.Fish,Hilsa	1767	655/kg	1112	217.40
23.Fish,Rui	407	200/kg	207	139.05
24.Fish,Katla	407	228/kg	179	110.08
25.Fish,Rupchada	1155	545/kg	610	149.36
26.Fish,Shirimp	1393	305/kg	1088	137.38
27.Fish,Kachki	951	125/kg	826	795.2
28. Cake ,Ganache	1997	1000/2 lb	997	135.0
29. Cake ,Black Forest	2039	1200/2 lb	839	119.9
30. Cake ,White Vanilla	1359	1000/ 2 lb	359	60.0
31. Cake ,Chocolate Mousse	1359	1000/2 lb	359	60.0

*Note: The prices were collected on 15/11/2011. Items 1-10:Grocery, 10-16:Vegetables, 17-21 Meat, 22-27: Fish, and 28-31 Cake category.*

**Table 5. Comparison of prices of four different online stores A, B, C, and D**

Sl no/ Product	Online Store A (BDT)	Online Store B (BDT)	Online Store C (BDT)	Online Store D (BDT)
1.Rice,Pran Minicate	450	810	335	573
2.Rice,Pran Nazirshail	450	855	350	510
3.Rice,Pran Chinigura	170	460	155	917
4.Lentil, Moshur dal Deshi	170	332	188	284
5. Lentil, Mug Dal Deshi	240	332	179	339
6.Flour,Teer	65	103	55	85
7. Flour,Pure	70	225	96	85
8.Soybean oil,Freash	880	1350	775	1356
9.Soybean Oil,Rupchada	920	1462	815	1316
10.Soybean Oil,Teer	890	1620	795	1356
11. Potato	35	180	35	53
12.Tomato	160	189	85	216
13.Cauliflower	60	72	59	120
14.Cabbage	50	63	40	101
15.GreenChili	100	126	105	406
16.Bean	130	76	65	203
17.Beaf,with Boan	480	500	399	570
18.Beaf,Less Boan	580	558	525	720
19.Chiken,Deshi	685	432	365	552
20.Chiken,Broiler	500	460	345	543
21.Mutton	690	769	699	883
22.Fish,Hilsa	1550	1807	2450	1767
23.Fish,Rui	380	769	520	407
24.Fish,Katla	420	769	575	407
25.Fish,Rupchada	1090	923	950	1155
26.Fish,Shirimp	750	2387	625	1393
27.Fish,Kachki	370	432	380	951
28. Cake ,Ganache	1950	1980	1650	1997
29. Cake ,Black Forest	1925	1386	1500	2039
30. Cake ,White Vanilla	1890	1800	1326	1359
31.Cake,Chocolate Mousse	2195	1756	1250	1359

*Note: The prices were collected on 15/11/2011. Items 1-10:Grocery, 10-16:Vegetables, 17-21 Meat, 22-27: Fish, and 28-31 Cake category.*

## Appendix B

The students were asked to rank the user friendliness of the four websites

ID:102-15-1232

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B			✓		
Website C					✓
Website D				✓	

ID:102-15-1251

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B				✓	
Website C					✓
Website D				✓	

ID:102-15-1262

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B					✓
Website C					✓
Website D				✓	

ID:102-15-1282

Websites	Low	Medium	Fair	Very good	Excellent
Website A				✓	
Website B					✓
Website C					✓
Website D				✓	

ID:102-15-1293

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B				✓	
Website C					✓
Website D					✓

ID:102-15-1304

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B					✓
Website C					✓
Website D				✓	

ID:102-15-2355

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B					✓
Website C				✓	
Website D				✓	

ID:102-15-1452

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B					✓
Website C					✓
Website D					✓

ID:102-15-1674

Website	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B			✓		
Website C					✓
Website D				✓	

ID:102-15-1704

Websites	Low	Medium	Fair	Very good	Excellent
Website A					✓
Website B			✓		
Website C					✓
Website D				✓	

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