

## **Prospects of E-Commerce in Pharmaceutical Industry of Bangladesh: Lessons from the Case of Drugstore.com**

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***Abstract:** To evaluate the overall prospect of E-commerce in the pharmaceutical business is the main goal of this study. Here, one of the biggest names in online pharmacy arena, Drugstore.com, has been chosen for the case study. In this case, mainly the deductive approach of research is followed along with the appropriate combination of inductive method. The commercial feasibility of an online pharmacy and acceptability of the consumers has been attempted to be derived in this study with help of financial results and other indices of its overall performance. The results and analyses indicate a potential steep growth in business through great success stories of Drugstore.com. And at the same time, the regulatory and other strong challenges are still found to be threatening. The findings show a pathway towards a whole new revolutionary concept of a pure internet based online drugstore. Finally, the study illustrates the significance of setting online pharmacy in Bangladesh from the experiences of Drugstore.com.*

***Keywords:** E-commerce, Online Pharmacy, E-health, Internet Drugstore, Online prescription.*

### **Introduction**

The terms "e-business" and "e-commerce" have entered in the dictionary of pharmacy in very recent times, and while many people consider them interchangeable, they have distinct meanings. E-business refers to the complete transformation of business processes, distribution channels, and organizational structures to create a high-performance company that efficiently uses computer and network technologies, especially the Internet, to execute transactions with customers and trading partners. E-commerce tends to connote the sales component of an e-business transaction (Turban et. al, 2008).

One of the first e-health concepts to really capture the popular imagination was the online pharmacy. The Internet takes the purchase of prescription drugs from the local pharmacy to the Internet superstore across the nation or around the world. The idea was that

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Internet-based pharmacies, with highly efficient operations and vast economies of scale, could offer prescription drugs at lower cost than local pharmacies could. Online-pharmacies have emerged as part of a general increase in reliance on the Internet for health information and treatment. The majority of industry leaders agree that Internet pharmacy brings potential value to the consumer and justifies its place in the market. Pharmaceuticals being a large industry and the overall cost of prescription drugs spiraling upwards, these pharmacies seemed like an ideal niche for an e-health venture. Their Web servers could quietly provide cheap drugs to millions at any time of the day or night. In this case study on Drugstore.com, this particular E-tailer has been chosen to be evaluated against the theoretical framework of e-commerce because of its prominent rise in its business arena.

### **Literature Review**

The literature on e-commerce/e-business has turned into a key issue in business research. E-commerce in Bangladesh actually started in the year of 1999 by some non-resident Bangladeshi (Ishtiaque et.al, 2002). Recently, there are several companies in Bangladesh who are using e-commerce application to provide easier services for their consumers. Despite the fact that a wide-ranging study on e-commerce/e-business is not carried out in Bangladesh. Most of the researches in e-commerce/e-business have concentrated on portraying the role of concerned organizations (Rakibul et.al, 2008; Shahidul et.al, 2010). Nevertheless, only a few researches were conducted in Bangladesh in the field of e-commerce/e-business regarding its opportunities and challenges in the business landscape of Bangladesh (Ishtiaque et.al, 2002), general perspectives (Ishtiaque et.al, 2004; Ferdousi, 2003), analysis of conceptual framework (Rakibul et.al, 2008), practices in rural areas (Ashraf, 2013), marketing (Ishtiaque, 2000), banking (Mia, 2007; Ali et.al, 2007), finance (Raihan, 2001) and so on.

The 21<sup>st</sup> century witnessed a steady increase in e-commerce/e-business all over the world. The levels of organizational involvement, methods of operation, and facilities offered by the IT sector have accelerated the pace of e-commerce improvement. In one study Islam et.al (2007) analyzed the adoption of Internet banking in the country and explored the various ways how the customer inhibited with the system. Rahman et.al (2004), Islam et.al and Mia et.al (2009) have also studied about online banking. In contrast, Hossain (1995) have elucidated the potentialities of electronic tourism in the country. But on the contrary, security issues remain as a major hindrance in the way of widespread implementation of E-commerce in our country. As different security methods provide different relative advantages, it is the responsibility of the organization to select the appropriate methods for the security of the electronic transaction (Morshed and Ferdous, 2005).

However, many relevant areas on e-commerce/e-business study in Bangladesh are not covered so far. Similarly, enough literatures on the issues of e-commerce/e-business in Bangladesh are not available particularly in the area of pharmaceutical business. From this point of view, the implication of this study can play a significant role in setting and achieving the business goals and satisfying the target customers' need.

### Objectives

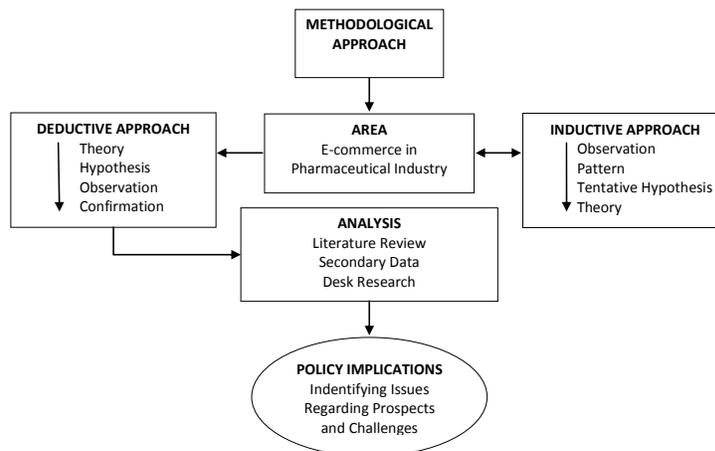
The general thrust of this study is to evaluate the commercial feasibility and overall prospect of E-commerce in pharmaceutical industry. In the light of this main objective, specific objectives (Malhotra, 2007) of the study are as follows:

1. To find out the main advantages and disadvantages of online pharmacies.
2. To identify the major challenges faced by online pharmacies.
3. To gain the lessons that can be taken from the experiences of Drugstore.com to set up online pharmacy in Bangladesh.

### Methodology

In a business research like the one undertaken here, the correct approach for the research methodology is generally preferred to be a sensible blend of two basic approaches: Deductive Approach and Inductive Approach (Saunders et. al, 2003). Deductive approach involves the development of a theory and eventually some hypothesis, which are to be tested through extensive and structured methods of scientific research. In case of the inductive approach, the analysis of the collected data results in the development of a theory. The sequential steps to conduct this study as shown below:

**Figure 1: Methodological Approach to Policy Implications**



In this study, mainly the deductive approach of research is followed with the appropriate combination of inductive method. At first the theoretical framework of this study is developed on the basis of classic and modern theories of e-commerce. Then the case of Drugstore.com is chosen to be evaluated. Therefore, the result of the study follows logically from premises i.e. available facts.

The study is basically explorative in nature because no previous study focuses on this issue. By definition, an exploratory research involves familiarity with a phenomenon, investigation of problems on which little formal knowledge is available, and achieve new insights into it (Malhotra, 2007).

The necessary financial data and relevant business information have been collected from annual reports of Drugstore.com and various authentic news reports. Simultaneously, to make this paper more informative different published text books, related journals, reports, seminar papers, magazines and research worked have been consulted. Literatures were generally collected from said sources and the Internet.

An extensive review of literatures helped to make logical representation on the topic of the study that also ultimately helped to shape up a comprehensive view about the prospects and challenges of online pharmacy services. The overall commercial feasibility of a successful online pharmacy in terms of e-commerce has been attempted to be derived with help of financial result reports and other indices of its overall performance.

### **Theoretical Underpinnings**

#### **B2C or Business-to Consumer E-commerce**

This is by far the most commonly discussed form of e-commerce. Here online businesses attempt to reach individual consumers. Even though B2C is smaller than other forms, it has grown extensively since 2000 (Laudon and Traver, 2010). The most significant characteristics of a B2C business is it is able to create a direct relationship with consumers without the involvements of intermediaries (Turban et al, 2002). Customers anywhere can browse and order goods or services at any time in this case. B2C are the electronic equivalent of the traditional mail-order or telephone based ordering system (Awad, 2007).

#### **B2C Models**

**Portals.** These offer users powerful web search tools as well as an integrated package of content and services. These include news, email, instant messaging, video streaming and much more in one place. Now a days portal business models is to be a destination site (Laudon and Traver, 2010). Among the numerous portal and search engine sites, the top

ten sites gather more than 90% of the traffic because of their superior brand recognition (www.searchenginewatch.com, 2001 cited by Laudon and Traver, 2010).

**E-tailer.** Online retail stores are referred as e-tailers. They come in varying size and web features. They are identical to the traditional brick and mortar stores except that the customers have to get into the internet to check their inventory and place an order. As the overall retail market in the US in 2000 was estimated to be huge according to Laudon and Traver (2010), the market opportunity for e-tailing is very large. Every internet user is a potential customer in this case. And at the same time, this sector is extremely competitive.

**Content Provider.** Information content is considered to be the cause of the largest type of internet usage (Laudon and Traver, 2010). Content providers distribute information content over the web. These may include news, music, photos, video, and artwork and so on. Retrieving and paying for contents is the second largest revenue source of B2C e-commerce (Dykema, 2000 cited by Laudon and Traver, 2002). Content providers usually make money by charging the subscribers a subscription fee. But then again there are websites that do not do it. Advertising and partner promotions provide money for the second category of websites. The content providing websites can be successful fully when they own the content by copyright.

**Transaction Broker.** The sites that process transactions for consumers normally handled in person, by phone, or mail are transaction brokers. Financial services, travel services, job placement services etc use this model very often. Their primary value proposition is saving money and time. Online stock brokers charge lucratively low commissions to lure new customers (Bakos, Lucas et al., 2000 cited by Laudon and Traver, 2010).

**Market Creator.** Market creators create a digital environment where buyers and sellers can interact and meet, display products and establish price for the products. Here the transactions are carried out by the sellers and buyers opposite to transaction brokers who do the transaction themselves. The market creating website has to have the potential financial resources and marketing plan to attract sufficient buyers and sellers. Otherwise it may not be successful. Speed and good management are other main factors in this case (Laudon and Traver, 2010).

**Service Provider.** Service providers offer services online. Some charge a fee and others generate money from other sources like advertising. The basic value proposition here is that the service providers offer consumers a valuable, convenient, time saving and low cost alternative to traditional services (Laudon and Traver, 2010).

**Community Provider.** Community providing websites create a digital environment where people with similar interest can transact, meet with like-minded people receive

interest related information etc. Community providing websites rely on hybrid revenue sources. According to Laudon and Traver (2010), the key to develop a new community is to carry out a well defined niche that is not currently being served.

### **E-tailing Business Models**

According to Turban et al. (2002) in B2C, business models are often categorized by the way of revenue generation. These includes: **(a)** Subscription Model– these Charge a monthly or annual fee for the subscription of the service, **(b)** Transaction fee model– they Charges a service fee based on the level of transactions offered, **(c)** Advertising-supported models– instead of users, they charge advertising companies. This can be applied along with the previous two models, and **(d)** Sponsorship Models– the companies who benefit or who are willing to donate beyond financial reasons may sponsor the business. This is usually a supplementary source of income.

Another angle of classifying E-tailing business models is the type of sites that sell directly to customers (Turban et al., 2002). These includes: **(a)** Direct marketing– these are the sites from manufacturers, **(b)** Pure-play e-tailers– these e-tailers have no physical stores, and **(c)** Traditional retailers with websites– these are called click-and-mortar retailers.

### **Different forms of internet pharmacies**

**Domestic Web Pharmacy.** The first group includes online pharmacies that accept legitimate prescriptions from doctor for discounted online shopping. These pharmacies operate in much the same way as local brick-and-mortar pharmacies, filling prescriptions written by individuals' doctors and selling other goods such as over-the-counter medications, hygiene supplies, etc. The concerns surrounding this type of online pharmacy are the least severe among the three categories (Nunneley, 2008).

**Cyber-Doctor.** A second type of domestic Internet pharmacy is one that accepts online requests for drugs without an independent doctor having provided a prescription. Instead, these businesses hold that they can issue a prescription through on-site doctors that hold "Internet consultations". A plethora of these online stores emerged, many specializing in selling Viagra, Propecia, obesity medications, anabolic steroids, and other drugs like these (Nunneley, 2008).

**Global Web.** The third and perhaps most interesting online drugstores are the "over-seas" drugstores. This use of the Internet for cross-border medication provisioning is only part of the increasing globalization of healthcare and health law. There is an increasing trend among patients with AIDS or other severe and terminal diseases to go to these outside sources. For these individuals, offshore pharmacies provide the promise of

powerful, perhaps unavailable medications at a fraction of the cost of an equivalent treatment through their doctor (Nunneley, 2008).

### **Major Findings**

The observation derived from the study are summarised below:

#### **The Evolution of Drugstore.com**

Drugstore.com, inc. (Drugstore.com) is a leading online provider of health, beauty, vision, and pharmacy products. It offers health, beauty, household, and other non-prescription products and prescription medications through their web store located at *www.drugstore.com*. The drugstore.com pharmacy is certified by the National Association of Boards of Pharmacy (NABP) as a Verified Internet Pharmacy Practice Site (VIPPS). It operates in compliance with federal and state laws and regulations in the United States (Drugstore.com website). It is headquartered at 411 108th Ave. NE, Suite 1400; Bellevue, WA 98004; (425) 372-3200. Its customer service centers are located in Bellevue, Washington and Halifax, Nova Scotia. Its web operations were launched on February 24, 1999. Partnerships with other companies that allow customers to pick up prescriptions at Rite Aid stores, enables drugstore.com to sell Rite Aid products, as well as vitamins from retailer General Nutrition Center (GNC). Although the online pharmacies had to face adversaries afterwards due to a binge of uncontrolled and unfocused spending, Drugstore.com regressed its business and placed itself in a very stable and upward-moving situation in terms of finance and global e-presence afterwards. However, in March 2011, Walgreen announced plans to buy the online pharmacy drugstore.com, in a deal valued at \$409 million. As a result of the merger, Walgreens acquired the Drugstore.com website in addition to other websites operated by the company, including Beauty.com and SkinStore.com. At last after a phenomenal independent history of online pharmaceutical business, Drugstore.com closed operating on its own by June 2011. But Drugstore.com still has been maintaining the separate branding of its websites after the merger closes and also their corporate office in Bellevue, Washington.

#### **Business Overview**

Drugstore.com operates its business in three business segments: (a) Over-the-counter, (b) Vision, and (c) Mail-order pharmacy.

#### **The Business Model of Drugstore.com**

The business model for most of the successful online pharmacies is mainly a virtual merchant model, whereby revenues are derived directly from the sales of prescription drugs.

The e-business model of Drugstore.com can be specifically termed as business-to-consumer (B2C). In the traditional community pharmacy, patients walk in (or sometimes call in) to a "bricks and mortar" retail operation to buy products and services. In the B2C model of e-business, customers have the opportunity to "click in" from their personal computers to a pharmacy's Web site to learn about or purchase goods and, increasingly, access health information services.

For a few pharmacies, such as drugstore.com (www.drugstore.com), the "click in" option is their only means of access other than the telephone. These are known as "*pure play*" Internet pharmacies. However, many pure play pharmacies are struggling to find a sustainable business model and have had difficulty competing against traditional pharmacies, particularly those that have also established an Internet presence. Pharmacies that combine a traditional retail operation with Internet-based B2C services are called "bricks and clicks" pharmacies. In the view of many experts, this model is poised to become the most successful type of pharmacy in the future.

### **Management strategies of Drugstore.com**

It has been several years since drugstore.com came to market as one of the first Internet pharmacies. We can see from the annual reports, financial reviews and news reports that it has been steadily improving its bottom line. While sales have grown exponentially, costs have been reduced and margins enhanced by Drugstore.com's marketing strategy and merchandising versatility. Therefore, the top management does not need to be accused too much for their inexperience in retail drug industry. Moreover, in the process of becoming profitable, Drugstore.com has not sacrificed growth. Very recently, the company plans to expand its use of mobile technology and social media. This includes the Facebook store the retailer launched. And E-commerce operations are also very much steadily rising. And drugstore.com management team is very hopeful to be able to maintain that growth rate and continue to make money well into the foreseeable future (Drugstore.com website).

### **Financial analysis of Drugstore.com**

**Key Financial Highlights of 2008 (4<sup>th</sup> quarter).** Gross margins for the quarter increased 130 basis points to 24.0%. Total contribution margin dollars increased by over 20% for the quarter and exceeded \$20.7 million the highest in company history. Total orders grew by 9% to 1.6 million, while contribution margin dollars per order grew almost 10% to approximately \$13. Cash, cash equivalents and marketable securities were \$35.2 million at quarter end (Drugstore.com annual report, 2008).

**Key Financial Highlights of 2009 (3<sup>rd</sup> quarter).** Gross margins increased 70 basis points to a record 29.3%. Total contribution margin dollars increased by approximately

15% to \$20.4 million. Total orders grew by approximately 15% to 1.5 million, while contribution margin dollars per order were flat at \$14. Operating expenses as a percentage of sales decreased to 31% from 34.1% in the same period last year. Cash, cash equivalents and marketable securities were \$37.4 million at quarter end (Drugstore.com annual report, 2009).

**Key Financial Highlights of 2010 (4<sup>th</sup> quarter).** Total contribution margin dollars increased by 4% to \$25.4 million. Total orders, excluding partnership orders, grew by 17% to 1.7 million (9% unadjusted) and contribution margin dollars per order were approximately \$14. Gross margins were 28.5%. Cash provided by operations during the quarter was \$4.3 million, a \$2.1 million improvement from the prior year period. Cash, cash equivalents, and marketable securities were \$33.5 million at quarter end (Reuters, 2011).

In the year 2011, Walgreen acquired Drugstore.com and the financial analysis and business analysis of the previously independent online pharmacy after this great change took a completely new dimension, which gives further scopes of study afterwards. However, the company still continues to thrive as Drugstore.com Inc. The management team of Drugstore.com say that they expects annual revenue of at least \$750 million in 2013, with mobile and social media helping the company get there. Moreover, the retailer plans to sell more of its products outside the United States and expects more than 200% growth in 2011 from its specialty sites (Internet Retailer, 2011).

### **Analysis of the study**

**Advantages of Online Pharmacies.** The biggest advantage of online pharmacies is obviously, the convenience factor. These pharmacies allow one to buy all the medications one wants, pay for these online and have them delivered to one's home. These packages can be delivered to any convenient location. Payments can be made by credit card or several other payment options. Besides, an online pharmacy allows consumers to purchase drugs that they would have been embarrassed to purchase otherwise. Also, online pharmacies tend to offer their customers fabulous discounts and special offers on purchases. For example, those who purchase bulk quantities of a single drug may get some free medicines. Another important factor that attracts consumers to online pharmacies is the privacy and confidentiality in the acquisition (and ensuing consumption) of pharmaceutical products. Pharmaceutical products that may inculcate consumer anxiety, such as personal quality-of-life pharmaceuticals (e.g., Viagra or birth-control pills), may be purchased via online sites from the privacy of one's home, reducing the anxiety or embarrassment of using traditional pharmaceutical channels (Erdem and Chandra, 2003). Furthermore, the anonymity factor may encourage consumers to ask questions about a treatment or drug that may have been too embarrassing in a traditional face-to-face pharmacy setting (Fung et al., 2004).

Another great advantageous point to be noted is, like many other e-businesses, the online pharmacy took advantage of the ease with which complementary products could be sold on their site. These other products added to the potential sources of revenue (Whitten et al., 2006).

**Disadvantages of Online pharmacies.** The main disadvantage of online pharmacies is that patients who obtain their prescriptions through online pharmacies place themselves at a higher risk of drug-related injury. While injuries can arise regardless of whether a patient obtains drugs through the Internet or through in-person visits to a local clinic and pharmacy, the risks can be amplified when prescription drug use is arranged exclusively through online pharmacies. Patients may suffer physical injury or harm as a result of taking improperly prepared drugs or drugs that are not appropriate for their conditions. They may also suffer harm from receiving poor quality medical or pharmaceutical advice, not learning of alternative therapies, or not receiving physical examinations or follow-up care. Online drug purchasing is also associated with drawbacks such as safety concerns, lack of ethicality, and legal non-compliance (Fung et al., 2004). Another downside of online pharmacy is, most of the websites selling drugs do not allow patients to use their insurance benefits when filling prescriptions online.

**Main Challenges of Online Pharmacy.** Being a completely new concept, the online pharmacy has been facing many challenges. Firstly the cost of delivery had to be absorbed or added to every sale. Since quantities of prescription drugs are usually not large, little efficiency was possible for home deliveries. In addition, many people obtain prescription drugs only when they become ill, and need medication right away. For these customers, even overnight delivery represents an intolerable delay.

Several challenges result directly from the complex structure of the healthcare industry. The online pharmacy was fighting to be listed as an approved supplier of prescription drugs by the major health insurance companies. Without this, customers would not be reimbursed for their medication expenditures, making it unlikely that they would substitute the online service for a traditional one recognized by their insurance provider. And, even if they could be reimbursed for online prescription drug purchases, the current model requiring customers to pay upfront via credit card is far less attractive for those with prescription drug coverage. That is because, they usually only have to make small co-payments or do not have to pay at all at their local traditional pharmacy.

The regulatory challenges that arise from the online practice of pharmacy and from the practice of medicine facilitated by the online pharmacies include professional practice standards and consumer protection concerns, as well as health care fraud and abuse issues. A brief introduction to these issues is presented below. Federal, state, and industry responses to these concerns also will be considered.

**Professional Standards:** An obvious regulatory concern is ensuring that online pharmacies do not provide an unfettered avenue for medical and pharmaceutical practitioners to avoid professional licensing requirements.

**Consumer Protection:** Identifying which entities are operating or affiliated with online pharmacies is not an easy task. Consumers may be unable to identify the pharmacies, pharmacists, physicians, and technicians serving them through online pharmacies.

**Business Practices:** Another challenge of online pharmacies is the potential for health care fraud and abuse presented by affiliations among health care providers. Physicians and online pharmacies are affiliating with each other in order to enhance their respective issuing and dispensing of prescriptions (Rajamma et. al, 2009).

### **Lessons Pharmaceutical Industry of Bangladesh can take to set up Online Pharmacy**

As the pharmaceutical Industry in Bangladesh is yet to explore the online marketing options, a lot of lessons can be learnt from the case of Drugstore.com to build up an initial infrastructure for an E-Pharmacy sector here. Here are some suggestions derived from the case study of Drugstore.com in respect of the advantages, disadvantages and challenges faced by the first internet based pharmacy that stirred the pharmaceutical industry.

1. As we have seen, Drugstore.com had to face a lot of challenges and difficulties being a “pure play” type of online pharmacy. It had no actual store and had to face a tough competition from the click and mortar stores that could easily win the trust of the consumers and became more readily acceptable. In our country, E-commerce being a very new concept, the actually renowned pharmaceutical companies can have an option of ordering online in the already existing websites on a trial basis at first stage.
2. Trust issue is such a big obstacle in a rigid social and cultural setting like ours, pure play type exclusive online drugstores are not likely to do too well right at this moment in Bangladesh. Instead, the already renowned big drugstores and established pharmaceutical companies should take initiatives to introduce ordering drugs online and have an option of paying through bank accounts, mobile bank accounts (like Bkash) or payment on delivery.
3. The rules and regulations on E-commerce and E-markets in Bangladesh are still on construction and need a lot of change and improvements to build up a favorable infrastructure for successful E-commerce implementation here. So extensive work and research need to be done in this sector.
4. As we have seen that drugstore.com showed its great strength in maintaining a low price consistently, the consumers paid back being loyal considering that they are

getting the best price. This thing should be kept in mind when any online drugstore starts operating in Bangladesh as well.

5. Bangladeshi health sector does not have a strict system for prescription drugs like antibiotics or specialized medicines. So it is going to be very difficult for an online drugstore to operate if it is based on these drugs. It will be wise for the pharmacies if they start their E-business by selling over the counter medicines like pain killers, Antacids etc. that are sold in a large scale all over the country.
6. In our climatic condition and due to the lack of proper care, the quality control of the bulk quantities of medicines kept for online operations should be very strictly monitored as fraud is very likely to happen here. An effective method for returning the unsatisfactory goods and drugs has to be found out, too.
7. A large amount of vitamins, supplements and other drugs involving well-being and maintaining good health are sold all over the country. Some of these are quite expensive and imported from other countries. Big pharmacies or the actual importer and distributors can take the opportunity of selling these online as most of its' customers are people with high income and they are the most likely to have internet access.
8. Expensive and exclusive drugs like that used in cancer treatments can be another sector that can be profitable for E-commerce. These medicines require to be kept in certain temperature and can be delivered when needed by the customers if they order online.
9. Products other than medicines that are sold by big pharmacies like health and beauty products, disposable diapers, health equipments and machines like wheel chairs, nebulising machine for serious asthma patients, blood pressure checking machines and also birth control goods and equipments can be sold online, too.
10. Proper market research and an extensive campaign promoting E-pharmacies are necessary for the initial success of an online drugstore. And it was even tough for Drugstore.com to be completely acceptable to the consumers in a country which is far more advanced than ours in respect of technological adoption and innovation acceptance.
11. A large number of skilled IT professionals are required to maintain and operate the online drugstores which can be a challenge but also an opportunity for the IT and computer graduates within the country.
12. Payments by debit or credit cards have not been so popular yet in our country. This indicates that the payment options for the prospective online drugstore in Bangladesh can only be through bank accounts, mobile banks or cash on delivery or pick up.

13. Pharmacy business is very much sensitive in any country as it involves the health and lives of people. So business ethics and quality control have to be on top priority of any online pharmacy as we have seen in the case of Drugstore.com.
14. The prospect of Online drugstore in Bangladesh is very positive because our pharmaceutical business is very strong within the country and E-commerce operations are also very much steadily rising. Big and renowned pharmacies that already exist can take this great chance to introduce online drugstores in Bangladesh. But a fully virtual drugstore or some online buying and selling website should not initiate this at the moment as reliability and fraud issues can take over and cause grim problems.
15. Bangladesh already exports a lot of pharmaceutical drugs in a large scale to many countries. Our quality and price attracts more and more international buyers every year. The competitive price gives us a privilege and this whole operation can be done online and drugs can be ordered from overseas if an effective delivery system can be developed. Drugstore.com also took an advantage like this and expanded its operation at international level.
16. Along with actual buying and selling, the online drugstores and websites of renowned pharmaceutical companies and big pharmacies can emphasize on providing reliable health information and drug descriptions. Big hospitals and health centers can initiate their online side by providing information on doctors and have an option for online doctors' appointments to familiarize the consumers with online operations and after that they can introduce online pharmacies.
17. At initial stage, B2B E-commercial activities can be checked for feasibility within our pharmaceutical industry before introducing B2C E-commerce in this sector. This can involve the overseas importers and exporters, distributors, Bangladeshi pharmaceutical companies, renowned pharmacies and of course big hospitals that require a large amount of Prescription and non-prescription drugs along with health equipments.

## **Conclusion**

Drugstore.com was an early entrant, and appeared initially to have all the elements necessary to become a major player in the future of healthcare. But then again, the intense regulation of this industry created unique problems in this transition (Nunneley, 2008). Clearly, the potential for abuses and fraud in this area, as well as for potential health complications, gave good cause for concern. As a result, there have been increasing questions raised about the safety of these new pharmacies and calls for numerous types of regulation of pharmaceutical Internet commerce. Numerous media outlets have described the situation with alarm. The rapid growth has also been viewed with alarm by actors within the industry.

The secret for drugstore.com has been its ability to diversify its product mix into high-ticket categories that appeal to its existing customer base, and then to use such relatively inexpensive marketing tools as Internet search engines, like Yahoo and Google, to get the message out to a very broad market segment. Drugstore.com, just like its retail pharmacy counterparts in the bricks-and-mortar world, has diversified into a wide variety of front-end merchandise. The site offers products as diverse as paraffin wax spas and pet collars to yoga mats and baby care bags. The organisational structures and “pure play” type of business model somewhat gets in the way of achieving the zenith of success as the top management suggested at the early stage of drugstore.com. But in spite of the shortcomings, drugstore.com has exhibited some real strength and sustainability and a pathway towards a whole new revolutionary concept of a pure internet based online drugstore.

In the context of Bangladesh, E-commerce is a new concept. Again, trust and security issues can come in the way of its implementation in the pharmaceutical sector. That is because both electronic money transaction and sensitive items like medical equipments and medicines are likely to provoke doubts in the minds of customers. In this situation, the actually renowned pharmaceutical companies can have an option of ordering online in the already existing websites on a trial basis at first stage. Pharmacy business is very much sensitive in any country as it involves the health and lives of people. So for any online pharmacy attempting to run its business in Bangladesh should give top priority to quality control, easy return policy and business ethics. But in spite of regulatory and other challenges, pharmacy business in online environment can be feasible in our country with a large population through proper advertising campaign and market research about the actual needs of the consumers. Moreover, E-commerce operations are also very much steadily rising in our country. From all these observations, it can be concluded that the prospect of online drugstore in Bangladesh is very positive because our pharmaceutical business is already very strong within the country.

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