

**The Problem, Prospect & Opportunities of Electronics Commerce in  
Bangladesh**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Masters of Science in Computer Science and Engineering

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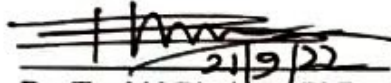
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## APPROVAL

This Thesis titled “**The problem, Prospect & Opportunities of Electronics commerce in Bangladesh**”, submitted by **Kamrun nahar, ID No: 212-25-018** to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of M.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 19-01-2021.

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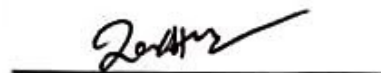
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## **ABSTRACT**

Bangladesh is integrating an array of e-commerce solutions into its business processes. Beginning with procurement through preferred vendor partners, Bangladeshi customers can now use authenticated web access to buy and sell different products in very small scale. Bangladesh has a large potential for e-commerce and its related activities. This presentation will demonstrate the prospect and the future of e-commerce for those business organizations that may be preparing to implement e-commerce solutions into their daily functions. It also tries to show an overall picture of e-commerce, in the context of Bangladesh.

The 21<sup>st</sup> century is the era of science and technology. Where we believe in technology for our betterment. As new technology advances, we gain new experiences and create new inventions in response to the current state of the global environment. Day by day the atmosphere we are surrounded by is changing more and more. To concurrent this situation, we made an idea which is a strong and optimistic environment monitoring system. This is a Linux-based work Solution. Which is a cost-efficient project. where we use the Operating system of Linux and a lot of distributions of Linux. We also try to make an easy and user-friendly network server. It is better than and ensures security than windows. Linux is the simplest term for operating the ring system it can allow to run of all kinds of applications with maintaining proper security.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background

E-Commerce deals with the buying and selling of goods and services over an electronic platform i.e., through the internet. Various E-Commerce models have emerged such as Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B) and Consumer to Consumer (C2C). E-commerce is an ability to allow businesses to communicate and perform transactions anytime and from anywhere. The power of e-commerce allows to vanish geographical and physical barriers and creates potential customers and suppliers. The growth of the E-Commerce sector depends on rapid technology adoption like the increasing use of devices smartphones phones and access to the internet, which lead to an increased online consumer base. eBay and Amazon E-Commerce companies are good examples of e-commerce businesses are able to post their items and sell them around the Globe or the world.

### 1.2 Aim Of The Research:

The Recharge has the following aims:

- Problem of E-commerce in Bangladesh.
- To study the opportunities of E-Commerce in the Rural sector of Bangladesh.
- To identify the challenges and problems of E-Commerce in Bangladesh.

### 1.3 Problem Statement:

It is a big challenge to establish and provide the facilities of e-commerce to the majority population lives in rural areas.

- Inadequate delivery mechanisms.
- A relatively low internet penetration rate.
- The lack of a robust online transaction system.

- To support the low-income rural population, government funding is needed for the expansion and development of rural infrastructure.

#### **1.4 Methodology:**

The data used in this study is of descriptive in nature. Data are collected from secondary sources i.e., collected from various websites, research articles, books, and statistical reports. In real-life experience besides this, the internet has been used. Another source of information. The main attempt of this study is to summarize the literature about e-commerce and its implementation in rural areas.

#### **1.5 Research Outcome :**

- Increasing mobile and internet users in rural Bangladesh.
- Increasing internet speed.
- Financial enablement for rural customers.
- Digital skilling initiatives by government and private sector.
- Digitization of addresses.
- Postal Services.
- Recently introduced community e-centers has a good potential which can provide the services of e-commerce in rural areas.

#### **1.6 Conclusion:**

Bangladesh is a least developed country where a large number of population in rural areas live under substantial poverty. Recently, phenomenal growth has been witnessed in accessing mobile phones and the internet which shows a new way for trade and commerce (e-commerce). Our government is taking initiative to encourage people in rural areas to transact through E-Commerce. To boost the usage of E-commerce there is a need of to educate the people regarding computers and technology. There must be strictly legal framework regarding E-Commerce security and privacy to raise the confidence of rural consumer in this system.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

Security is maybe the hardest issue looked by clients who wish to trade the internet business world. The issue results from the Internet's weaknesses where online business is based. Right when a client web through the Internet, anyone from wherever all around the world may be prepared to get to the data being sent. The gamble of information burglary, stealing of organization, and debasement of data could transform into a reality. In addition, the opportunity of distortion increases basically on the Internet because of the difficulty of addressing the use of organizations, or possibly, secrecy. The shortcomings of the Internet could limit clients from support online business accepting they feel that the level of chance is unsatisfactory. Most corporate bosses revolve around the probability that a sneak could catch their information or their client's data as it explores Internet channels. Expecting security breaks occur, clients could hurt running from interruptions of their insurance to money related disaster. Affiliations will persevere through genuine setbacks going from the lack of critical information to a horrible public picture and, shockingly, legitimate disciplines by managerial associations. Security control for protection, steadfastness, and security of information is, thusly, an imperative fundamental for the working of web business. Various specialists have discussed the fundamental security-control necessities of web business These essentials can be summarized in five arrangements: confirmation, nonrepudiation, mystery, security affirmation, besides, data genuineness. Approval ensures that the trading parties an electronic trade or correspondence are who they ensure they to be. Nonrepudiation infers that neither of the trading social occasions should have the choice to deny having checked out a trade a while later. Characterization warrants that all trades between trading parties are bound to the social affairs being referred to in the trade. Security is imperative in the web business world because of the probability that software engineers could procure one's sensitive information. Security affirmation ensures that singular information about clients assembled from their electronic trades is safeguarded from

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exposure without assent. Data trustworthiness suggests that data in transmissions are not made, obstructed, adjusted, or deleted unlawfully. These necessities are accomplished by various developments, for instance, encryption, untouchable confirmations, modernized imprints, and consistence with assurance methodology .Many assessments have focused security issues in the Internet and online business setting, focusing in fundamentally on the execution and backing of safety control .disregarding the way that advances in Internet and electronic business security development during the 1990s have diminished the opportunity of web business security breaks, clients don't adequately gain security influence, including Internet and online business security progressions . In addition, they can't understand which controls are applied and executed at a page they wish to visit. Since clients have near no knowledge into security headways, advanced security slips make them careful about web-based business security. As such the genuine strength of security control may not totally figure out client affirmation of online business.

## **2.2 Related Works**

Trust takes on an important role in assisting clients with resolving the feeling of risk and vulnerability. To request to comprehend the significant parts of purchaser trust regarding on online business, the piece of the method involved with making trust, chance, and choices should be completely perceived. This piece of the proposal would at first depict the purchaser certainty focus forces to be reckoned with, coordinating the four parts of electronic business characterized unwavering quality credits: online business association dependability, web unwavering quality as a point, online business framework components, and individual components. The psychological components of individuals are in like manner took apart with respect to electronic business, hence mirroring the mind of the client in a contrasting way

## **2.3 Risk in e-commerce**

The partition among buyers and online brokers, and the inadequacy of the Internet as a medium, are key factors that offer the impression of danger. Online exchanges have various kinds of shortcoming factors: social and ordinary shortcomings. As shown by the ring, risks are correspondingly improvement based, what's more, the aftereffect of web business framework

itself, or social in this way occurring because of online business trader's immediate. A social shortcoming is made considering the way that web business affiliations get an astounding opportunity to make the most of the segment and emotionless piece of internet shopping. To join, there are no controlled exercises set up to screen each and every exchange to give the buyer additional demand. These elements can in addition be portrayed as deft exercises. Sharp exercises concerning on the web business likewise join thing twisting, fake person introductions, spilling and selling of private data and misleading showing. In general, lead shortcoming contains various types of dangers: financial, individual, execution, and security gambles. Natural shortcoming is connected with the hazardous considered the web a stage, which is never in the full control of the purchaser or even the electronic business seller. Web business vendors could plan to develop the client's impression of trust by creating firewalls and encryptions, yet there is now the gamble of outsider impedance of the exchange framework. Typical dangers merge the burglary of Visa data and outer catch of private data by programmers for example. Interminably out, the dangers generally contain cash related dangers and security chances. Hazard can also be reviewed by a solitary perspective. Seen risk is coordinated by the singular's impression of continuing on through an accident looking for the best result. Thusly, online business clients have singular insights connected with risk and data open at that particular second. Since saw chance is connected with client trust also, it will overall be settled that the higher the degree of saw chance the lower the target to make exchanges on the web.

Fortunately for the brokers, there are control factors that could work in the dealer's generosity. Advancing evaluations have shown that rehash of shopping is an uncommonly influencing part confining the impression of chance. To join, web business retailer's standing and consumer loyalty's during the past electronic exchanges are all risk decreasing forces to be reckoned with. Producers have examined the deficiency of evaluation connected with the upkeep of trust and its effect on danger. As per Turban and Lee (2017), sponsorship of trust creates various parts, as such inciting a suspected where trust and hazard ought to be depicted in various strong groupings considering the way that keeping up the trust is an on-going approach. Thusly, the immense size of assessment ought to be composed to address trust as a making wonder and not as a static naturally suspected. As per Salam et al. 72-77 trust is a making thought, wherein

the trust is the postponed result of persuading trade affiliations. Thusly, online clients who see the electronic business page as associating with, significant, and made will without a doubt make sureness sees towards the electronic dealer.

## **2.4 Research summary**

In outline, in the years to come, the business of electronic commerce will be a one of the main area in the field of electronic business. The transformation in electronic business decidedly affects the exchange business by quick contribution new business sectors and crossing edges. It extraordinarily impacted the customary market framework on the planet and made it conceivable to work on the existences of individuals. In spite of the fact that it gives clients and merchants rewards, web based business presents customary organizations with obstructions to a practical spot. Emerging nations Vipin Jain et al/An Overview of Electronic Commerce (internet business) Journal of Contemporary Issues in Business and Government | Vol 27, Issue 3, 2021 670 represent a scope of difficulties to the successful direct of web based business while standing out it from non-industrial nations. Whenever Internet costs are negligible, web based business thrives rapidly and many organizations are ordinarily depleted. Comfort is one of the significant benefits of electronic business for shoppers and consequently expanding client steadfastness. This is on the grounds that buyers can put orders by means of web access from anyplace, they are. Organization internet business offering a consistent activity and different installment decisions ought to be crucial for any client and give more capacities open on the web. Different benefits incorporate extended items and improved territorial inclusion. In any case, internet business organizations face many difficulties in their development.

The study described in this article inspected the effect of clients' apparent strength of control on their acknowledgment of online business. Customers perceived strength of nonrepudiation, privacy protection, and data integrity

## **2.5 Scope Of The Problem**

Visual signs in the traditional retail environment are absent in the online condition, for instance, the presence of the store and the immediate interaction with clients offers that influence shoppers consumers feeling comfortable. The lack of physical information pieces and online physical contact makes it increasingly difficult to establish trust with buyers. In this way, a significant test is developed for organizations involved in internet business. It is crucial to discover factors along these lines that help create buyer trust in Internet business

## **2.6 Challenges**

Trust among merchants and purchasers assumes a critical part in any effective web-based business exchanges. Yoon and Oceana observe that trust in the online business world is the essential inquiry. Certainty is more significant in web based business contrasted with conventional exchange, since labor and products bought on the Web can't be affirmed immediately and moreover in view of the shortfall of rules and rule in internet based business.

Another element in online business issues is the level of preparation. Introduced a three-degree method of preparation: Organizational Readiness (OR), Industry Readiness (IR), and National Readiness (NR)- (NR)¥

## **2.7 Conclusion**

The potential size of the Bangladeshi e-commerce market and a promising sign of development in its ecosystem has resulted in some impressive valuations for some of the country"s burgeoning e-commerce. There has been much debate about whether these valuations are part of an overly optimistic „bubble“, or if they are relatively conservative. Despite being a poor 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. The synergy between telecommunications and information technology has the proven capability of monitoring and administering real-time transactions. Therefore liberalizing the telecom and Information Technology (IT) sectors as well as reforming the country's financial and commercial procedures is the precondition of successfully implementing e-commerce in Bangladesh. In the case of marketing, simply having a website in the vast sea of the Internet is not sufficient. Uniformity is an important factor in the commencing of contracts through the Internet. Therefore to take advantage of the newer opportunities that IT development presents, Bangladeshi companies have to attain internationally accepted certification on quality control, competitive price and timely delivery. Creating awareness among the Bangladeshi exporters regarding e-commerce is essential. They have to be knowledgeable to appropriate and to utilize the benefits of IT. The exporters are not required to acquire operating knowledge on IT. Their understanding on the cost-benefit aspects followed by adopting e-commerce would be an achievement. Business Associations can play a major part at this juncture by highlighting the benefits of IT to its members and encouraging them to use customized software for their day-to-day operations.



## **CHAPTER 3**

### **CURRENT SCENARIO OF ELECTRONIC COMMERCE**

### **IN BANGLADESH**

#### **3.1 Introduction:**

E-commerce (Electronic commerce) is a big hit in today's market. E-commerce is an abbreviation for electronic commerce. E-commerce is that the purchase and sale of products and services over the net. E-commerce is a term used to describe the shift from a regular market to a digital marketplace. It is a new era in business. As Bangladesh progresses toward becoming a digital Bangladesh, the participation of women in digital platform is tremendous over the past two centuries and their participation as digital entrepreneurs is inspiring. This noteworthy way of doing business is progressing admirably all over the world, and Bangladesh does too. The sample of the study was exploited using the convenient sampling technique. Primary information was collected using structured forms and the questionnaire consist of statements in Likert's five-point scale and secondary data was collected using various types of journals, document, and paper cutting etc. The primary area contains a segment profile of the respondents, and the second section is a questionnaire designed to understand women's involvement in the E-commerce sector and their perspectives in Bangladesh. The focus of this study is to evaluate the present state of women's e-commerce in Bangladesh, as well as to investigate the components, and challenges, and to sort out those challenges: road to fix it. The results of this study showed that, Cyber security now drives online-based businesses, resulting

in web users building trust in the digital world. Finally, everyone in the community must collaborate to secure women's digital access and a safe atmosphere.

### **3.2 Government Policy**

Bangladesh has seen e-commerce was inception in the late 90's and early 2000s. Even though there was a lack of infrastructure, internet facilities, and government policy but it received better appreciation from the consumers. In 2013, the government allowed to purchase and sale of goods and online services by using international credit cards (export.gov, 2017). Before that wireless internet service, WiMAX and 3G roll out in some major cities and internet speed got faster. To some extent, that gave a major boost to the online business. Initially, the growth was not that significant, but it was promising. In 2016, the e-commerce industry recorded a 67% growth in the first three quarters, and the country's e-commerce transactions reached 3.59 billion takas (50 million U.S. dollars) (Xinhua, 2016).



**Figure 1: E- Commerce Market Size**

Global online platform is yet to permit to operate in Bangladesh but somehow few services are available and small online services are given to Bangladesh consumers. The local online shops are using different internet based platforms against payment. Attention has been drawn to the fact that various internet based platform earning but not paying tax to the Bangladesh exchequer. The High Court in early November 2020, has ordered the authorities to collect revenue, including tax at source and other taxes on all sorts of transactions for advertisement, domain sale, licence and other fees, from internet-based platforms like Google, Yahoo, Facebook, YouTube and Amazon. The Court has instructed The National Board of Revenue (NBR), Bangladesh Bank, Bangladesh Telecommunication Regulatory Commission and other agencies to collect revenues payable in the past as well from the tech firms. At the same time, American

e-commerce giant Amazon and retail heavyweight Walmart are working out possibilities of enhancing their presence in Bangladesh. At present, Google operates in 40 countries around the world, having set up 70 offices, while Amazon has offices in 17 countries. Walmart already has a very big office in Dhaka for sourcing RMG and planning to start outlet while Amazon is in talks with the government for entering into online business. Chinese ecommerce giant Alibaba is already operating in Bangladesh through one regional e-commerce company Daraz. Upon evaluation of the law and rule of Bangladesh, Walmart and Amazon find that the complex VAT registration and payment methods as deterrents. The e-VAT registration is unfavourable for Amazon because a permanent local address is a mandatory requirement and they do not have any local office. They want to review all regulations/guidelines as well as papers prepared for VAT payments for these two companies. Both of these companies do not want to pay taxes through existing procedure. They prefer to make payments through any global bank, preferably by electronic fund transfer. They want an intermediary global professional firm like any one of the Big 4 largest accounting and audit firms PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst & Young, and KPMG with a strong presence in Bangladesh to solve VAT issues on their behalf. Another major issue faces is the risk of double taxation. When a buyer/customer in Bangladesh uses a credit card to make a purchase from Amazon or other similar vendors, the bank that the card belongs to automatically deducts VAT from the transaction. These two companies even were not informed of the deduction for adjustment of such advance deductions causing double taxation. Both Google and Amazon want this kind of automatic VAT deduction to stop. Instead, they want to make VAT payments through a banking intermediary in Bangladesh, facilitated by any of the globally reputed big 4 accounting companies. These two companies are seriously watching how the government reacts to their proposals. These accounting firms already contacted NBR to know the Bangladesh's VAT structure and regulatory affairs. This is a test case of mentality of policy makers and bureaucratic system in Bangladesh. Google and Amazon are now studying issues like how much tax they may have to pay, and the regulatory framework that they will have to follow if they set up offices here. According to the new VAT law it is mandatory to use Sales Data Controller if a company's turnover exceeds Tk5 crore. It will also have to show purchase

accounts while submitting returns. But the tech giants are facing complications around both the issues since

they use their own global platforms for accounts and make no purchase in Bangladesh. An official of the consultancy firm has told to a local daily newspaper that the international tech companies have two probabilities - one is to do business through deploying agents and completing the registration process, and the other is to set up local offices to get a more permanent business outlook. Bangladesh yet to have an effective e-commerce policy of investment mentioning the such as marketplace model and inventory based model. Preference should be given to the marketplace model of ecommerce. Government may encourage FDI in single-brand retail under the automatic route. It may also allow multi-brand retail but only with government approval and certain restrictions. Following to the experience of other countries, the rules should call for 50 percent of the total FDI money to be invest purely in the backend infrastructure. There are clauses for mandatory local sourcing of goods and services. Rules are relatively easier on the e-commerce front for the pure marketplace model. The pure market place e-commerce company can only provide a platform for third party buyers and sellers to come together and trade goods. It cannot buy, keep an inventory and sell the goods. Basically, it means that an entity with FDI or a foreign company cannot do e-commerce business under the inventory based model. An entity running an e-commerce marketplace shall not have control over inventory. E-Commerce company many try to control the market through sister companies. They may control of a vendor if more than 25 percent of the sales of such vendors are to the e-commerce entity or its sister companies. The definition of a sister company is a company herein ecommerce company have at least 25 percent voting equity stake. The policy should restrict e-commerce entities from requiring merchants to sell goods exclusively on their platform. Some of the e-commerce companies decide of their own

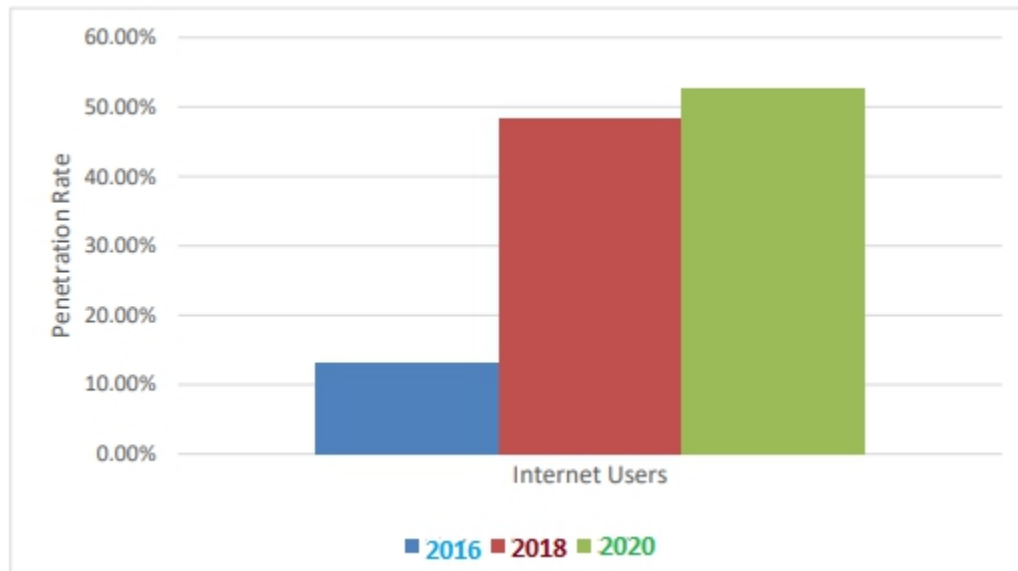
to forward the order to some of the own 'Shall' companies in order to maximise profit and have control over the market. Lastly and most importantly, e-commerce companies should not allow the direct or indirect influencing the price of products sold on their website. They should be allow the online heavy discounting tactic, which may give a hard time to offline retailers.

Amazon usually offer Amazon FBA (Fulfilment by Amazon) service. FBA basically provides the sellers an international platform to sell their products globally. When a customer purchases a product, Amazon packages it and ships it to the customers. The also undertake the after sales responsibilities. It has been reported that Amazon has a plan to stock Bangladeshi products in their warehouse as well and give the new entrepreneurs an opportunity for business. There are many manufacturers and garments industry in Bangladesh who is successful in the local market but unable to ship their products globally. Amazon will give them the opportunity to list down their products in their site. When a buyer from any country of the world purchase their product, Amazon will ship their products to the buyer from the manufacturer. In this way, Bangladeshi sellers or manufacturers will be benefited greatly. Firstly, they can sell the products globally. Secondly, even if the traders who is not producing the products personally. And thirdly, Amazon will handle returns and refunds so there is no extra trouble for that. With small investments, SME entrepreneurs shall sell their products by using Amazon as an e-commerce platform. Bangladesh rule should define Inventory and market-place based e-commerce. Government should amend the laws and rules to doing the business easier. At the same time, the rules should prevent abnormal discounting, preferential treatment to some sellers, predatory pricing to facilitate business for local SME entrepreneurs. The global payment gateway should be overhauled to make transaction easier for buyers in home and abroad.

**3.3 User Interaction** The fastest internet connection and internet users are the key factors that help to the oom e-commerce business. Last couple of years, Bangladesh experiencing tremendous growth in this

sector. In 2016, the internet penetration rate was 13.2%, and the number of internet users was 21.39 mill internet live statistics, 2016). In 2017, the number increased triple times, the number of internet users raised to 80.43 million and the penetration rate was 48.4% (Internet w. s., 2018). According to Bangladesh telecommunication regulatory commission (BTRC), the latest statistics

(June 2018) show that the number further increased to 87.79 million users and the penetration rate is 52.77% (BTRC, [www.btrc.gov.bd](http://www.btrc.gov.bd), 2018). Figure 1 shows a graphical presentation of users and penetration rate.



**Figure 2. Internet users and Penetration rate**

The statistic looks very promising and encouraging to e-commerce traders and investors. The data also revealed that mobile internet users hold the majority of shares among a total number of users. Based on the latest data, 82.02 million users subscribe to the mobile internet, 0.081 million subscribe to WiMAX, and 5.685 million subscribe to ISP + PSTN connections. Figure 2 shows the breakdown of internet subscribers; the data source is the BTRC website (BTRC, [www.btrc.gov.bd](http://www.btrc.gov.bd), 2019).

### **3.4 National and Global Impact of E-Commerce**

Globally, e-commerce surfaced at a time when dotcom businesses were losing traction in developed countries. One of the first formal e-commerce applications was undertaken by

CompuServe for its US and Canadian markets. Subsequently, modern-day powerhouses such as Amazon.com, eBay and more recently Alibaba.com, were established.<sup>2</sup> The tremendous growth potential of e-commerce is evident in countries such as India as well, where the market is worth about USD 12.6 billion as of 2013 and rapidly growing. In the US, the total value of the e-commerce sector is about USD 294 billion.<sup>3</sup> The popularity of e-commerce is largely driven by the expanding reach of the Internet. All over the world, the scale of global trade being carried out

on the Internet is increasing. In the Asia Pacific Region, countries such as Japan, China, and India are leading the way in online trade, with an average yearly growth rate of 143 percent over the last decade. However, when it comes to the use of the Internet for online shopping purposes, country-level data vary considerably. While in China, online shopping constitutes 20% of Internet usage, in South Korea, the proportion is about 50 percent of Internet usage.

### **3.5 Major E-Commerce Segments in Bangladesh**

Although there are various applications of e-commerce, the major categories can be outlined as follows.

#### **Table 1: Industry categories of E-Commerce**



1	<b>Business to Business (B2B)- organizations selling goods &amp; services to other organizations</b>
2	<b>Business to Consumer (B2C)- organizations selling goods &amp; services directly to consumers</b>
3	<b>Consumer to Consumer (C2C)- consumers selling goods &amp; services (used or new) to other potential consumers</b>
4	<b>Business to Government (B2G)- private organizations selling goods &amp; services to the government</b>
5	<b>Business to Employee (B2E)- private organizations selling various goods &amp; services at in individual level primarily targeting various employees of different organizations</b>

Concerning the Bangladesh e-commerce sector, the major subsectors, thus far, have been B2B, B2C, C2C, and B2E segments. B2B websites were once the biggest constituent of the e-commerce sector in Bangladesh. However, this has changed and recent trends indicate that their representation in the sector at large is expected to lessen. Several B2B websites in Bangladesh are engaged in providing manufacturing and supply-chain solutions. For instance, BGMEA has actively deployed B2B e-commerce solutions for international RMG orders and procurement, as do several RMG companies. There are also B2B websites that feature business directories, trade deals and information about suppliers such as BangladeshBusinessGuide, Addressbazaar and Bizbangladesh, which, at present, have limited popularity. 6 B2C websites have also become very popular as evidenced by the growth and commercial success of online-based home delivery of food, such as HungryNaki and FoodPanda. This has come as a panacea to citizens

given the high levels of traffic in areas such as Gulshan and Dhanmondi in Dhaka at a time when people like to go out to dine. Other examples of B2C initiatives include Facebook-based commerce platforms such as Shop.bd and ShoptoBd which allow Bangladeshi customers to purchase products from leading online shopping sites in the US, UK, India and even China, e.g., Amazon.com, ebay.co.uk, Amazon. in, and Alibaba. Although the competition between local players and foreign-backed players in the B2C market, in particular, the food delivery business, is expected to determine the future structure of the B2C sector, what appears to be inevitable is its sustained growth.<sup>7</sup> Meanwhile, C2C businesses, thus far, have been the life force of the e-commerce sector in Bangladesh. The leading players in this category include Bikroy, Ekhanai, and clicked. There has already been a reorganization of this sector with CellBazar being bought by Telenor, followed by the 5 acquisition of the foreign market player OLX by Ekhanai.com. These businesses consist of individual and auction-based online marketplaces similar to eBay. clicked was the country's first auction platform, while Cellbazaar was the first to use SMS-based transactions.

About B2E businesses, employee recruitment, particularly in the private sector in Bangladesh, has more or less shifted online, thanks to companies such as bdjobs.com, prothom-alojobs.com, and jobsA1. Although internal hiring and lobbying are widely prevalent, vacancy announcement takes place through the largest and most accepted web recruitment portal Bdjobs, while many others like prothom-alojobs.com and jobsA1, etc also enjoy growing popularity.

### 3.6 Growth Rates & Usage Statistics :

Overall, the current trends and e-commerce growth statistics can be seen in the following table.<sup>9</sup>

**Table 2: E-Commerce Growth Rate**

Year	Q1-Q2	Q2-Q3	Q3-Q4
2014 (Recorded)	<b>27%</b>	<b>39%</b>	<b>51%</b>
2015 (Predicted)	<b>60%</b>	<b>72%</b>	<b>79%</b>

2016 (Predicted)	<b>85%</b>	<b>95%</b>	<b>100%</b>
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As is evident, the current growth rates, quarter-on-quarter, as of 2014 are already very high. Growth rates of over 30% quarter-on-quarter are not commonplace for most sectors in Bangladesh. The predicted growth rates for 2015 and 2016 are even higher and imply a persuasive case for more market entry and business expansion in this sector. Demographic and business trends in the Bangladesh e-commerce sector are also noteworthy, as revealed by a recent report published by Kaymu5, another up-and-coming e-commerce portal:

- Online shoppers still comprise the primary traffic in the Bangladesh eCommerce sector.
- They are usually within the age bracket of 25-34 years.
- Over 80% of e-commerce traffic in Bangladesh comes from three locations; Dhaka (35%), Chittagong (29%), and Gazipur (15%)
- Gender disparity is evident as the user base comprises 83% male users and 17% female users.
- New online shopping visitors stand at 49% of the total traffic while returning visitors are 51%.
- Cash-on-delivery is still the most popular mode of payment for e-commerce transactions. Cash-on-delivery constitutes 95% of all the payments that take place, followed by bank/wire transfer (2%), bKash/Ukash (2%), and credit cards (1%). These statistics are expected to change in the next 5-10 years as regulations for online payments with credit cards mature, and the overall financial literacy of citizens, increases.
- Most online shoppers appear to search for and purchase consumer electronics and mobile phones.
- About devices used, 71% of shoppers use either a desktop or a laptop, followed by mobile phones and tablets.
- About 69% of consumers use Windows operating systems for e-commerce.
- Google and Facebook-paid advertisements are primary clickthrough points for online shoppers

### **3.6 Conclusion:**

Bangladesh is a least developed country where a large number of the population in rural areas live under substantial poverty. Recently, phenomenal growth has been witnessed in accessing mobile phones and the internet which shows a new way for trade and commerce (e-commerce). Our government is taking initiative to encourage people in rural areas to transact through E-Commerce. To boost the usage of E-commerce there is a need of to educate the people regarding computers and technology. There must be strict legal framework regarding E-Commerce security and privacy to raise the confidence of rural consumer in this system.

## CHAPTER 4

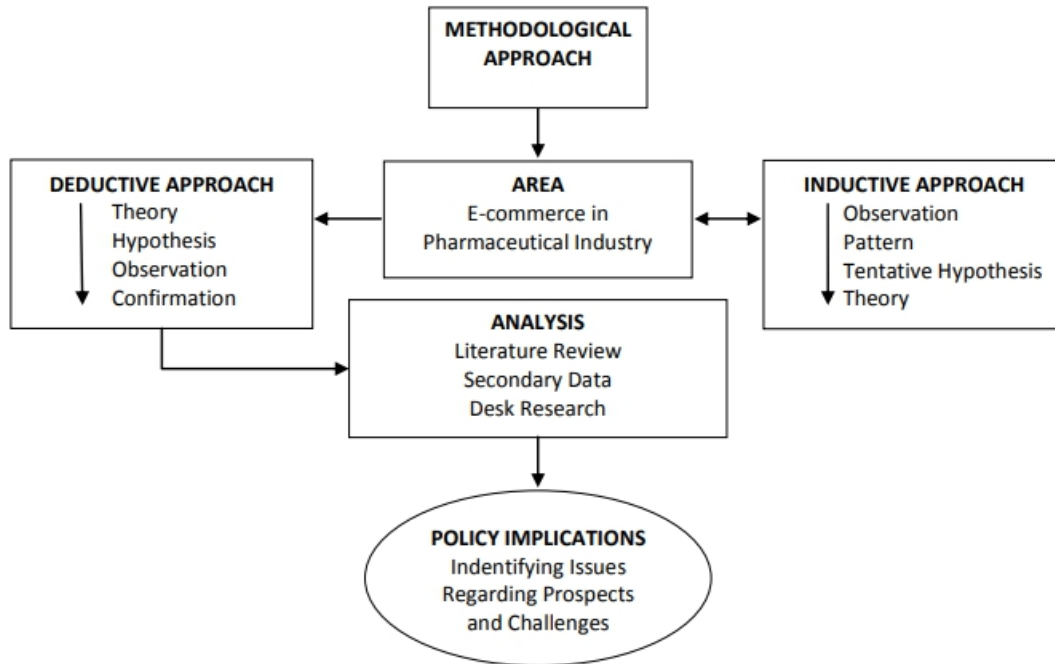
### THE PROBLEM OF E-COMMERCE IN BANGLADESH

**4.1 Introduction:** The first e-commerce companies in Bangladesh launched around 2013/14. Internet shopping wasn't popular at the time because people were used to shopping in brick-and-mortar stores. The e-commerce market in Bangladesh is only just now starting to take a shape, thanks mainly to the emergence of a few major players. Bangladesh has a population of 165 million people and some have internet. E-commerce is new in Bangladesh, but it is going to be big soon.

#### **4.2 Establishing Trust**

E-commerce promises a seamless shopping experience, but in Bangladesh, many shoppers still harbor doubts. There is still a distrust from people that the products they receive don't match the image seen on their screen at the time of purchase. However, e-commerce ventures take steps to ensure quality.

In 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 the Inductive Approach (Saunders et. al, 2003). The 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 the 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 3: Methodological Approach to Policy Implications**

### **4.3 Funding is the Biggest Obstacle**

E-commerce in Bangladesh has been slow to develop, due in part to a lack of funding and inadequate familiarity with the industry by potential lenders. Banks, for example, are paying for marketing and promotion costs for credit cards with the top brands. But they are not doing this for e-commerce startups because those startups do not have any collateral. Investors have to spend money for over 5 years on E-commerce. But everyone is only focused on a short-term investment.

### **4.4 Logistics Challenge**

Logistics is the backbone of any e-commerce venture, and with Bangladesh's approach, it's a big issue. Ecommerce companies sometimes have trouble managing their transportation and logistics. They have to deal with a lot of different deliveries every day. However, e-delivery services in

Bangladesh are now emerging to help entrepreneurs of the new business model with their large delivery requests.

**Present Internet Situation in Bangladesh:** The internet came late to Bangladesh with the country gaining connectivity in 1996. In the last few years it has grown considerably, although obviously from a very low base. With an estimated internet user-base of around 10 million coming into 2013, representing just under 7% user penetration by population, the local internet industry has been preparing to move into the next stage of its development. As this report demonstrates, however, the country must work hard to overcome obstacles associated with the country's lowly economic status and still developing ICT infrastructure, not least of which being an overly bureaucratic government. The report also looks briefly at very early signs of broadband internet in Bangladesh and importantly, the country's first moves into WiMAX and mobile broadband services. The Internet was launched by private Internet Service Providers (ISPs) in 1997. Even though NTP98 acknowledges the critical need for easy and affordable access to Internet services, BTTB's pricing and regulatory strategy on ISPs are restrictive.

#### **4.5 Unstructured and Unorganized Supply Chain**

The supply chain in Bangladesh for E-commerce is not working well yet. The merchants do not have a place to store the products, and they also usually don't do things right like having an organized way of managing inventory. They are doing some things with the e-commerce companies to fix these problems. Example: Kiksha.com is collaborating with suppliers to find new ways for storing products and managing sales from the online marketplace.

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, within a very short time 64 districts will be covered with Internet facilities. Followings are the barriers to e-commerce in Bangladesh

-  A Minimum number of users of websites.

- ✚ Poor telecommunication infrastructure.
- ✚ High price of computer and hardware.
- ✚ Lack of technically efficient personnel.
- ✚ Lack of investment in hardware and software.
- ✚ Online banking connectivity is poor.
- ✚ Absence of sufficient cyber law.
- ✚ Very slow & expensive Internet services.
- ✚ Lack of initiatives in taking e-commerce.
- ✚ Bureaucratic complexities.
- ✚ Lack of awareness at the government level of e-commerce issues.

#### **4.6 Conclusion**

Bangladesh is a country that is starting to use e-commerce. With the prevalence and affordability of mobile phones, Bangladesh has a lot to offer for e-commerce. Though there are some problems like lack of funding and infrastructure, they will get better over time. For now, it is a good idea for businesses to take advantage of these opportunities. They might not be able to do this later.



## **CHAPTER 5**

### **THE PROSPECTS OF E-COMMERCE**

#### **5.1 Introduction**

Bangladesh has shown great prospects for e-commerce in the Information Age. At present, IT is a subject of widespread interest among Bangladeshis. The Government has decided that IT will be a focus area and so there will be computer training centers in each division or district. Computer hardware and software are imported duty-free, VSAT has deregulated status, and high-speed networks have been introduced in Bangladesh.

The JRC report has 45 recommendations. Four of these have already been implemented and the rest are in the process of being implemented. There is plenty of activity going on in every sector including e-commerce, e-governance, computer networking, Internet, web browsing, web applications and multimedia product development. Some things are already happening to make the present and future of IT in Bangladesh better. They are described below.

#### **5.2 Gained and Scalability**

Electronic commerce is a global trend; Internet usage has gained a scaleable amount of users, and electronic commerce is a way to extend local markets around the globe, across all borders and time zones (Reynolds). Businesses around the globe are increasingly engaging in electronic commerce, and sufficient technology for reliable electronic transactions exists. All businesses including Asian businesses will need to establish an Internet presence in order to become or remain competitive. This paper examines the current situation in Bangladesh and some of the prerequisites for electronic commerce to flourish in this country. A major factor stimulating Internet growth in Bangladesh is the drastic improvement of the telecommunications

infrastructure in this country (McLaren and McLaren). There are a variety of e-commerce applications possibilities existing in this country. Some of these are:

- ✚ Retail store such as book stores, music stores, toy stores, etc.
  - ✚ Auction sites where an individual buyer and seller can buy and sell goods products electronically.
  - ✚ Co-operating businesses connected using their own private telecommunication network carrying out transactions in a semi-automated way.
  - ✚ Bank connected to their customers by providing services such as deposits, and payments and giving information on the status of an account.
  - ✚ Railways/airlines/cinema theatres permitting booking tickets on-line and paying for them on-line using credit cards.
  - ✚ Filling tax returns with government agencies online and obtaining an immediate acknowledgment.
  - ✚ Electronic publishing to promote marketing, advertising, sales, and customer support.
- Electronic commerce (e-commerce) has become a buzzword in modern trading. It is the process of conducting business using computers, software, storage, processing, and networks.

### **5.3 Prospect for e-commerce in education:**

- ✚ Books availability: Previously, the use of technology was not common among people, students had to go to the library to get respective books for their assignments or projects. If in any library there were a single or two copies available of one book and more students wanted it. In these conditions, students had to wait for their turn to have that book. This practice used to delay their assignments.

Now, through e-commerce students have easy access to their respective books. They can order books through several websites, for example, Amazon, liberty books, etc. In case, students don't want to purchase then there is an option of online reading where books are available for free and they don't have to pay for them.

✚ Understanding: The term e-commerce is not restricted to buying and selling of products only. There are many occasions where students are not able to understand any concept on their own. In these cases, they can look for the options given below:

- They can visit online websites, where numerous articles are available at one click.
- They can also listen to the lectures of different scholars from any part of the world.

By reading different articles and listening to lectures, students can have a better and clear understanding of their concept.

✚ Beneficial for all: E-Commerce in education is not confined to students only, teachers can also benefit themselves through this medium. They can search online and visit different websites to learn various teaching strategies.

✚ Assignment help services: Many online services are providing original, unique and plagiarism-free work, for instance, assignment ace the UK. With the help of these websites, students can get their work done. Teachers can also benefit themselves through these online services.

✚ Easy medium for education: It becomes convenient for the students and teachers to have a book from any part of the world. For example; if there is a book that is not easily available in your town, you can either read it online or purchase it. Without e-commerce, it wouldn't be possible to go to a particular state physically to have that book.

✚ Economical: Doing an e-commerce business in the educational field is economical and reasonable. You don't have to look for a physical store and don't need to spend a handsome amount on its infrastructure. All you need to have an outstanding and magnificent idea, good and high-quality products and a well-maintained website that grabs the attention of the customers.

#### **5.4 Prospect for e-commerce in garment**

Not so many days have passed the market place comes to our country. It has launched in 1996 through ISN. The success of e-commerce in our country is mare. The total number of ecommerce site in our country is forty, where in India there one thousands of e-commerce related businesses. In this sense e-commerce industry is not flourished in our country. We are still in the learning phase if we consider ourselves in context of developed nations. At present a small number of e-commerce business are running profitably in this country though a large number of e-commerce related companies couldn't even able to reach their break-even point. Some of the businesses are already been shut down. So, present situation is not very enlightening. We have to take drastic measures to improve the conditions of e-commerce industries of this country. Some example of e-commerce business in Bangladesh Small steps from Munshiji for e-commerce in Bangladesh: Munshiji is the pioneer of e-commerce industry in our country. To say about the best ecommerce site, the name of the Munshiji must come first. In 1999 Munshiji technology limited released their site ([www.munshiji.com](http://www.munshiji.com)). By the direction and designed of corona IT, this web site gives all advantages. They maintain their function not in e-commerce but also aiming at doing some specific activities. They are interested to export cottage, handicrafts, silk, jute products, tea, leather and leather products, software etc. In future, they are determined to establish local traditional "Noksi Kantha" as a international products. Besides, Munshiji want to establish our economy on e-commerce based. Finally, Munshiji has been doing a tremendous job towards establishing our industry to the world market ([www.munshiji.com](http://www.munshiji.com)). Drik Picture Library of Bangladesh: Drik currently distributes its images through the-Internet to clients all over the world, but the monetary transactions take place through conventional means. Using software developed by the system administrators at Drik, best hopes to setup a complete e-commerce unit which will allow products in bit (computer files) or atomic form (physical objects) to be sold through an entirely automated system with secure money transactions and protection of privacy.

Drik hopes to use this technology to sell images from its stock of over 100,000, to clients from all parts of the globe. Since the images can also be sent entirely in digital form, freight charges, delays and the red tape involved in getting their own pictures back, can be entirely avoided. For Drik, the greatest benefit is from avoiding the risk of loss or damage to their valuable originals.

## **5.5 Conclusion**

From our study, we come to the conclusion that through this e-commerce, Bangladesh can be prosperous in the business arena of the world. All the major countries of the world are trying to embrace this technology with open arms. We can not just wait and see this tremendous phenomenon. We have to take an active part in adopting this technology. If we become unsuccessful, the ray of the modern era will never come to our country. So for the betterment of the nation, we have to take drastic measures as early as possible. Our hope for the future lies in the hand of e-commerce.

## **CHAPTER 6**

### **SWOT ANALYSIS**

#### **6.1 Introduction**

This is a useful technique for understanding your strengths and weaknesses and identifying the opportunities and threats you face.

#### **6.2 Strengths:**

- Long-distance communication between people (home and work).
- Only work from home
- Online Business Starting
- Data collection (valuable business assets).

#### **6.3 Weaknesses:**

- Newcomers underestimate the level of expertise required to survive in the market
- Starting a business is very costly
- Competition for small businesses
- Shumta Tons of price and service options

#### **6.4 Opportunities:**

- Changing the age structure of the population
- The number of households in the UK is increasing

- Simple pricing application
- Regulatory policy analysis

### **6.5 Threats:**

- Economic crisis – Owners and less likely to extend their broadband subscriptions. Lack of trust in the stock market in the digital communications market.
- We will see to what extent consumers will be persuaded to adopt the Internet.

**6.6 Conclusion:** In this study, we provide an operating system hosting environment as a solution to initiate hardware dependencies between multiple systems. We provided a topic framework and recommended an ix86 implementation with Linux as the base OS. We've also highlighted areas of special interest. Although runtime communication extends to ix86 and Linux, the idea presented can be extended to other areas and other core operating systems to provide the same capabilities.

## **CHAPTER 7**

### **CONCLUSION**

#### **7.1 Conclusion**

It has been wonderful and rewarding to review this process. Seen the future and it will help me to connect with many people who can prove it. This thesis taught me one of the most important topics and skills in time management and self motivation. When I started my workday was eight hours, I could be in the office six days a week and I hadn't thought of it that way. When I know what to do, synchronized clocks never break, so I organize my daily activities. It was structured, and it was the perfect time for me to get a structured answer to the learning questions. I needed to learn to motivate myself to run the system and manage long working hours. I'm still thinking of using this company with different suggestions and ideas. However, I am open to new opportunities as I study internationally at Bangladesh University. I love this line of business. I continue to work hard for my position and look forward to learning more about the industry and meeting new people. It was a great experience and I hope to gain a lot from another intern.

The first e-commerce companies in Bangladesh launched around 2013/14. Internet shopping wasn't popular at the time because people were used to shopping in brick-and-mortar stores. The e-commerce market in Bangladesh is only just now starting to take a shape, thanks mainly to the emergence of a few major players. Bangladesh has a population of 165 million people and some have internet. E-commerce is really new in Bangladesh, but it is going to be big soon. E-commerce promises a seamless shopping experience, but in Bangladesh, many shoppers still harbor doubts. There is still a distrust from people that the products they receive don't match



the image seen on their screen at the time of purchase. However, e-commerce ventures take steps to ensure quality.

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Logistics is the backbone of any ecommerce venture, and with Bangladesh's approach, it's a big issue. Ecommerce companies sometimes have trouble managing their transportation and logistics. They have to deal with a lot of different deliveries every day. However, e-delivery services in Bangladesh are now emerging to help entrepreneurs of the new business model with their large delivery requests. The supply chain in Bangladesh for E-commerce is not working well yet. The merchants do not have a place to store the products, and they also usually don't do things right like have an organized way of managing inventory. They are doing some things with the ecommerce companies to fix these problems.

Example: Kiksha.com is collaborating with suppliers to find new ways for storing products and managing sales from the online marketplace.

## **7.2 Further suggested work**

The structure we have examined here shows that it is so essential to make client trust in the online business setting. Trust is a perplexing social peculiarity reflecting innovative, conduct, monetary, mental, and hierarchical encounters between both human and nonhuman mechanical entertainers. Proficient ways to deal with laying out uprightness and legitimacy are basic however insufficient for building long-term confiding seeing someone among buyers and online organizations. Web dealers need to change their long term and transient client associations and

layout techniques to energize purchaser insights that impact their ways of behaving, assumptions and reliance and in the end their ability to burn through cash. Supervisors need to handle the variables impacting different belief classes to lay out the reliability of their associations. By taking an all-encompassing perspective on how client interest is changing and the way that it answers real way of behaving, the capacity of organizations to fabricate entrusting associations with clients is like grabbing for an answer in obscurity. In light of current theories, our calculated model gives the initial steps to resolve these issues.

In the era of globalization, people are being digitalized. Bangladesh government also declare vision 2040, so all activities will be done digitally. So, in the future e-commerce site will be more famous for buying and selling goods. 'NT Whole Sales' is now only for small businesses but in the future, it will be upgraded with various features and advantages. It is now applicable for selling in Bangladesh but will be developed for selling all over the world.

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## APPENDICES

### Appendix A1: Research Paper Reflection

ON A very optimistic estimate, the size of Bangladesh's e-commerce sector is projected to be around \$3 billion by 2023. Bangladesh is also set to graduate from a least developed country to one of middle income around the same time. There has also been strong historical evidence of consumers spending more money on fashion, food, and consumables when they have higher expendable income. So, there is potential for growth in this sector, and the growth of mobile financial services and stronger internet coverage in suburban regions have been credited to the growth of e-commerce in the past years. Owing to the Covid pandemic, e-commerce saw a natural boost globally as nationwide or regional lockdowns have been in place. Companies have been innovative and acquired extra market shares by giving consumers what they wanted while consumers have been able to order consumables, conventional and non-conventional goods and services from the safety and comfort of their homes. The evidence in Bangladesh lies with the online sale of cattle during Eid-ul-Adha, for example, as sales have been significantly higher than last year.



## Appendix B1: Survey Report

S.L	1. Gender	2. Marital status	3. Age	4. Level education	5. Experience	6. Do you think online shopping is safe?	you ever bought anything from internet?	8. Do you prefer to buy your product/s ervices?	9. I do not trust e-commerce payment?
1	Female	Married	Under 30	Masters	Less than a	Yes	Yes	Yes	Strondly Ac
2	Male	Married	Under 30	PHD	Less than a	Yes	Yes	Yes	Agree
3	Female	Married	Under 30	Bachelor d	4-5 years	Yes	Yes	Yes	Neutral
4	Male	Single	Under 30	Bachelor d	Less than a	Yes	Yes	Yes	Neutral
5	Female	Single	Under 30	Masters	1-3 years	Yes	Yes	Yes	Neutral
6	Male	Single	30-50	Masters	4-5 years	No	Yes	Yes	Neutral
7	Female	Single	Under 30	Hsc candid	Less than a	Yes	Yes	Yes	
8	Male	Single	Under 30	Masters	1-3 years	No	Yes	No	Neutral
9	Male	Single	Under 30	Masters	Less than a	Yes	Yes	Yes	Agree
10	Male	Single	Under 30	Bachelor d	Less than a	Yes	Yes	Yes	Neutral
11	Female	Single	Under 30	Bachelor d	1-3 years	Yes	Yes	Yes	Neutral
12	Female	Single	Under 30	MBBS	4-5 years	No	Yes	Yes	Agree
13	Male	Single	Under 30	Bachelor d	more than	Yes	Yes	Yes	Neutral
14	Female	Single	30-50	Masters	Less than a	No	Yes	Yes	Agree
15	Male	Single	Under 30	Bachelor d	Less than a	No	Yes	No	Agree
16	Male	Single	Under 30	Bachelor d	4-5 years	Yes	Yes	Yes	Neutral
17	Male	Single	Under 30	Undergrad	1-3 years	Yes	Yes	Yes	Strondly Di
18	Male	Single	Under 30	Bachelor d	1-3 years	Yes	Yes	Yes	Neutral
19	Female	Single	Under 30	Masters	1-3 years	Yes	Yes	Yes	Neutral
20	Male	Single	Under 30	Bachelor d	Less than a	Yes	Yes	Yes	Neutral
21	Male	Single	Under 30	Bachelor d	1-3 years	No	Yes	Yes	Neutral
22	Male	Single	Under 30	Bachelor d	1-3 years	depends on	Yes	Yes	Strondly Di
23	Male	Married	Under 30	Bachelor d	4-5 years	Yes	Yes	Yes	Strondly Ac
24	Male	Married	Under 30	Hsc	Less than a	Yes	Yes	Yes	Agree

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