Sonargaon University (SU)
Dhaka, Bangladesh

Thesis Paper

on

The Impact of Covid-19 on E-Commerce

Submitted by:
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ID: MBA2201025007

Program: Master of Business Administration (MBA)
Major: Supply Chain Management
Semester: Fall-2022

Submitted to:
Department of Business Administration
Sonargaon University (SU)
Dhaka-1215

Date of Submission
12-Jan-2023

Sonargaon University (SU)
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Supervised by:
Md. Rasel Hawlader
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Dhaka-1215

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12-Jan-2023

Letter of Transmittal

12 January 2023

To,
Md. Rasel Hawlader
Lecturer
Department of Business Administration
Sonargaon University,
Dhaka, Bangladesh

Subject: Submission of Thesis Paper on "The Impact of Covid-19 on E-Commerce"

Dear Sir,
With due respect and honor, I would like to inform you that, I have successfully completed the requirements to entitle myself for the thesis paper, which is a mandatory requirement to completion of the MBA program. This is a great pleasure for me to submit the thesis paper on "The Impact of Covid-19 on E-Commerce ". Here I gathered what I believe the most completed information available.

This report is all about to synchronize my theoretical learning from MBA program with the real business world. I attempted my every move to go through all the necessary materials, documents, guidelines, and other subsequent reports which fulfill the requirements of this thesis paper. I have placed my most effort on preparing this term paper and tried to leave no stone unturned to make the report a vivid and comprehensive one despite a lot of limitations. I sincerely believe that it will serve the required purposes. I will always be obliged to furnish any clarification regarding this paper, if required. I humble request you to accept this report for your kind evaluation.

Kind regards,
Very truly yours,

Md. Shohel Hashanul Banna
ID: MBA2201025007
Department of Business Administration
Sonargaon University (SU)

Letter of Authorization

I, Mr. Md. Rasel Hawlader, Lecturer, Faculty of Business Administration, Sonargaon University (SU) hereby certify that the Thesis work entitled as "The Impact of Covid on E-Commerce" has been prepared by Md. Shohel Hashnaul Banna ID: MBA2201025007, Department of Business Administration, Sonargaon University (SU) and submitted as a requirement for the partial fulfillment for the degree of the Master of Business Administration (MBA) with major in Supply Chain Management. To the best of my knowledge, the above-mentioned work has been conducted by the student himself. Any option and/or suggestion made in this study are entirely that of the author of this thesis paper. The report is an original work and prepared as a partial requirement of the degree the Master of Business Administration (MBA).

Md. Rasel Hawlader
Lecturer
Department of Business Administration
Sonargaon University (SU)

Student's Declaration

This is Md. Shohel Hashanul Banna, a student of Executive Master of Business Administration, ID: MBA2201025007 from Sonargaon University (SU) would like to solemnly declaration here that this report on The Impact of Covid-19 Pandemic on E-Commerce, authentically prepared by me under supervisor of Md. Rasel Hawlader, Lecturer, Department of Business Administration, Sonargaon University.

I did not breach any copyright act internationally. I am further declaring that I did not submit this report anywhere for awarding any degree, diploma, or certificate.

Sincerely Yours,

Md. Shohel Hashanul Banna
ID: MBA2201025007
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Acknowledgement

I would like to thank Almighty Allah who made me able to complete this Thesis Paper by utilizing my skills and knowledge.

I would like to express my indebtedness and deepest sense of gratitude to Supervisor Md. Rasel Hawlader, Lecturer of Business Administration, Sonargaon University for his encouragement, thoughtful suggestions, proper guidance, and supervision throughout the progress of my thesis work.

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I would like to convey my heartiest thanks to my mother Hasina Begum and my wife Dr. Nazifatul Hai without their inspiration and support I am unable came here today. I express to my sincere thanks to all my teachers, classmates and many of ecommerce vendor who provide me information to fulfill my thesis.

I am responsible for errors and mistakes presented in the report and a positive and constructive criticism will always be greeted warmth.

Md. Shohel Hashanul Banna
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Executive Summary

The Novel Coronavirus Disease (Covid-19) first in Wuhan, China at the end of December 2019 and its spread so fast. The world health organization (WHO) has declared on 11 March 2020 outbreak a Pandemic. This made most of countries give lockdown. Most of local and international border are being closed flight are suspended restricted the movement of peoples, transportation, goods and services. Covid-19 pandemic has huge impact on every aspect of society including our regular life style, our jobs, government daily works, study, health sector and our business activity. the business atmosphere was adversely affected as markets and business premises ware under lockdown and people unable to purchase their desired goods from their normal outlets which led to the increase e-commerce same time organization like school start to adopting online schooling, corporate office using home office through internet. This paper therefore explores how Covid-19 impacts on e-commerce. During the study I found massive supply chain difficulties are facing major b2b e-commerce companies. On other hand Covid-19 has the revolution of information and communication technology. I found a very positive trend to e-commerce and f-commerce in developing countries. Nowadays, the traditional business replaced by e-commerce or f-commerce. It was found out that the upsurge in e-commerce transactions also brought about increased e-commerce security threats such as financial threats, scam, spam, malware, and fake or unauthorized e-commerce sites. Among the recommendations made is that the government should build an enabling e-commerce environment which requires changes in public policy and business practices to improve the digital and trading infrastructure, facilitate digital payments and establish appropriate legal and regulatory framework for online transactions and security. This research briefly highlights the e-commerce trends as world still in outbreak so hard to get conclusions and suggested makes several future researches.

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List of Abbreviation

Short from	Abbreviation
COVID-19	Coronavirus disease
SARS-COV	Severe acute respiratory syndrome coronavirus
MERS-COV	Middle east respiratory syndrome coronavirus
GDP	Gross domestic product
G20	Group of Twenty is an intergovernmental forum
UNCTAD	The United Nations Conference on Trade and Development
UNECE	The United Nations Economic Commission for Europe
B2b	Business-to-Business (B2B)
B2C	Business-to-Consumer (B2C)
C2C	Consumer-to-Consumer (C2C)
D2C	Direct-to-Consumer (D2C)
C2B	Consumer-to-Business (C2B)
B2A	Business-to-Administration (B2A)
C2A	Consumer-to-Administration (C2A)
B2G	Business-to-Government (B2G)
COD	Cash-on-delivery
MFS	Mobile Finance Service
F-Commerce	Facebook commerce
E-Commerce	Electronic commerce
M-Commerce	Mobile Commerce
e-cab	e-Commerce Association of Bangladesh

Chapter One
Introduction

1.1 Introduction

On the final day of 2020, China informed the World Health Organization of a newly identified coronavirus Covid-19. Sadly, Covid-19 rapidly disseminated over the globe, posing a threat to many lives. The use of the Internet to buy goods and services has become increasingly common and popular. Traditional stores must now make way for online marketplaces. The simple fact that customers may now source goods from all over the world at the click of a button is the driving force. As a result of the SARS-CoV-2 virus pandemic, the e-commerce industry is confronting some hitherto unanticipated difficulties. The effects of Covid-19 on the e-commerce sector are examined, along with the rapid shifts in consumer demand and purchasing behavior.

The COVID-19 epidemic has caused the worst economic downturn in decades, and it is also having a devastating effect on human life and health. As a means of slowing and stopping the disease's global spread, governments everywhere have instituted travel restrictions. Numerous countries and regions had to institute full or partial lockdown and the closure of their borders. In addition to slowing economic activity around the world, the epidemic and its accompanying restrictions disrupted global trade, supply networks, and labor markets.

Closing borders, locking down, and a drop in foreign demand all had a major impact on the Central Asia region, which relies significantly on exports from extractive sectors and on migrant remittances. As a result, analysts predicted a 1.7% slowdown in Central Asia's GDP expansion in 2020. Due in part to a drop in tourism, the Western Balkans' GDP growth rate was predicted to fall by 4.8%. The South Caucasus was predicted to experience a decline of 4.9% in 2020 due to decreased mobility, falling industrial production and services (including tourism), decreased remittances and investment flows, and lower oil prices. Turkey's economy was predicted to contract by 3.8% in 2020 due to sharp falls in tourism, investment, and exports. Foreign direct investment flows to transition economies are projected to fall by around 38% in 2020, according to the World Investment Report 2020.

World Bank Enterprises Follow-up Survey results, available at this writing for only four of the countries under consideration, reveal the economic toll taken by the pandemic, particularly in the form of falling sales. Businesses and customers in the region, echoing worldwide trends, have quickly shifted to digital channels, adjusting to new business models and adopting new consumption patterns as a result of the limits imposed by socially isolating measures and limitations on movement. For companies to keep running and for economies to recover, digital connectivity was crucial. People's access to the internet was crucial in helping them deal with the constraints placed on their mobility since it allowed them to continue working, shopping, and accessing services despite being confined to their homes due to the pandemic.

In addition, the pandemic being an ongoing occurrence, the landscape of e-commerce and developing data is always changing. Hundreds of millions of people's lives, livelihoods, and well-being are at jeopardy as a result of the COVID-19 health crisis. Most commercial and social activities were significantly slowed down by the rigorous containment measures enacted by several countries in the first half of 2020 in an effort to stem the rising tide of contagion. We have not witnessed such a precipitous drop in total hours worked and participation in peacetime since the Great Depression. There are indications that many of the G20 economies have reached the bottom of the acute and deep global economic crisis. The recovery must be quick and sustainable, and the labor market must be rebuilt to be more robust and inclusive. In order to combat the epidemic and its effects on economies and communities, G20 leaders pledged at their summit on March 26, 2020 to make no compromises in their efforts to protect people's employment and wages. Leaders from the G20 have requested the International Labor Organization and the Organization for Economic Cooperation and Development to track the effects of the pandemic on the job market. This note is in response to your inquiry.

1.2 Objectives of the Study

Every research work is conducted to achieve few objectives. The primary objective of this report is to fulfill the requirement of the Thesis Paper. The secondary objective of the report is to understand the Covid-19 impact on E-Commerce. This report has been prepared primarily for the fulfillment of the dissertation, which is an essential part of the MBA program of Sonargaon University (SU).

The objectives of this report are:

- To understand E-Commerce industry.
- Examining what affect Covid-19 will have on online businesses.
- To understand where E-Commerce is at the moment and where it's going.
- To illuminate the driving forces behind E- Commerce's worldwide rise in popularity.
- The goal is to raise public consciousness regarding Covid-19 and online trade.
- To understand the present status and trends of E-Commerce
- To reveal the key variables influencing the increased usage of E-Commerce.
- To analyze the impact of Covid-19 on E-commerce

1.3 Methodology of the Study

The Impact of Covid-19 Pandemic on Ecommerce Worldwide is examined in this research by the use of secondary sources and carrying out a document analysis, which includes the researches done by UNECE, G20 region and UNCTAD. In light of its stated objective, this research will examine the particular actions and adjustments done by the Amazon, Alibaba Group and E-bay to combat the pandemic. This comparative study of the secondary sources of the document analysis approach can better illustrate the effects of the pandemic on the world and the company's strategic response to it.

Data Source

The information and data for this report have been collected from Primary Source as well as Secondary Sources but emphasis has been given more on Secondary Sources.

Primary Source

- Face to face conversation with e-commerce seller
- Direct observation
- Over phone and through e-mail collect information from different companies

Secondary Source

- Books, manuals,
- Journals,
- Publications,
- Web sites,

Apart from these I will try to induce my practical experience what I have gathered while working as a thesis and my leanings what I have learnt from my university.

1.4 Limitations of the Study

Data available was limited and mostly secondary reports and documentation analysis have been used for this research. A primary limitation of the report is that it is based on secondary data and Covid-19 pandemic not finished yet and from February 2022 Ukraine Russian war also effect of global supply chain so its bit confusing time to say this growth or decline for pandemic issue or for war issue.
Some information presented in the report may be not 100% accurate due to shortage of authentic data.

There is no study work which is free from defect. Such defects are known as limitations. As the report prepared with a short span of time, the report could not be made comprehensive and conclusive.

The limitation of my study work is stated by the following:

- The data and information related with the topic was not too many.
- The study also suffered from inadequacy of data.
- The study was not done very successfully due to inexperience.
- Supply of more practical and contemporary data is another shortcoming.
- Time Constraint.
- Lack of experience.

Chapter Two
E-Commerce and Covid-19 Pandemic

2.1 History of E-Commerce

The invention of Internet brought huge opportunities for information technology and provided new opportunities for businesses. The progress of e-commerce started in the early 1970s after 4 establishment of Electronic Funds Transfer (EFT). EFT is computer-based system which is used to perform financial transactions electronically. The use of EFT applications was limited to financial companies, large businesses as well some institutes and corporations Electronic Data Interchange (EDI) was developed in the late 1970s to reduce the drawback of electronic funds transfer (EFT). EDI enlarged the group of participating businesses from services, retailers, manufacturers etc. These systems were later called Inter Organizational System (IOS). An Inter-Organizational System (IOS) allows for an integrated flow of information between organizations to achieve a desired supply chain management system that facilitates the growth of organizations. Hence, electronic commerce includes enterprise resource planning systems, data mining, and data warehousing from the 1990s onwards.

Online shopping became possible when the internet was opened to the public in 1991. Amazon was one of the first ecommerce sites in the US to start selling products online and thousands of businesses have followed since.

2.2 Meaning of E-Commerce

Ecommerce (or electronic commerce) is the buying and selling of goods or services on the Internet. It encompasses a wide variety of data, systems and tools for online buyers and sellers, including mobile shopping and online payment encryption.

Most businesses with an online presence use an online store and/or platform to conduct ecommerce marketing and sales activities and to oversee logistics and fulfillment.

According to eMarketer, in 2022, global retail ecommerce sales will surpass $5 trillion for the first time, accounting for more than a fifth of overall retail sales. And by 2025, total spending will exceed $7 trillion, despite slowing growth.

2.3 Classification of E-Commerce

Following of the main models of ecommerce those businesses can be categorized into:

- **Business-to-Business B2B**
- **Business-to-Consumer B2C**
- **Consumer-to-Consumer C2C**
- **Direct-to-Consumer D2C**

- **Consumer-to-Business C2B**
- **Business-to-Administration B2A**
- **Consumer-to-Administration C2A**
- **Business-to-Government B2G**
- **Mobile Commerce (M-Commerce).**
- **F Commerce**

2.4 Benefits of e-commerce to the customer

Buying 24/7 all through the year: E-commerce stores are always accessible. Customers can shop at all hours of any day during the year. In this case, customers, especially those who do not usually have time to do conventional shopping, can do their purchase anytime through sellers' website (Taher, 2021).

Save Time: Customers need less time to shop online from the comfort of their homes or from anywhere they are.

Convenience: Customers can effortlessly order their desired product from anywhere in the world using their electronic devices.

Price: Customers can compare prices and features from different websites before taking decision to buy.

Provide Varieties: E-commerce provides a wide variety of goods from which a customer can choose, unlike the traditional system with limited stock (McKinsey, 2019).

Easy Accessibility: Customers can browse through the various to find their desired product without lost unlike the conventional shopping malls where they can get lost while wandering along the.

2.5 Benefits of e-commerce to the companies

No Geographical Limitations: Companies can sell their products to anywhere in the world. They do not need large building structures or opening of branches to get close to their customers.

Lower Operational Costs: They may employ only few staff with little or no rent and a reduced fixed operating expenditure.

Increases Companies Efficiency: E-commerce benefits from the "pull" type supply administration. In this type of management, a business procedure begins when a demand originates from a client and utilizes a 'just in time manufacturing' method. This makes the

company conduct business transactions faster and at lower operational costs, increasing company efficiency.

Easier Market Targeting: Targeting the right people is a key factor in promoting ecommerce services. Online providers collect a great number of consumers' data to ensure they are targeting the right audience to their products. For instance, if they are promoting a male oriented product, they can target one sex and getting more engagements, and as results gaining more purchases.

Higher Advertisement Impact: Advertisement slots can get the attention of millions of customers and prospects across the globe simultaneously.

2.6 Limitations of e-commerce

Inability to test item before purchase: With this kind of shopping, customers are unable to try the item before getting it (Alnoor et al., 2020). This could make them to be skeptical about its quality.

Lack of the personal touch: E-commerce do not provide a forum for physical interaction which may discourage customers who wish to interrelate or socialize (Alnoor et al., 2020).

Delay in delivery: To shop online means to wait up to one week, or sometimes more, to have your order in your hands. The joy of getting the product while doing actual shopping is missing while shopping online (Bhasin, 2019).

Damage during Transportation and Delivery: The product bought online can be damaged or spoiled during delivery. It may be difficult or expensive to get a replacement as the damaged product must be shipped back to the vendor before it can be replaced.

Limited Consumer Services: There may be delays to enquiries or complains in the customer service of online transaction unlike in a physical shop where prompt attention may be given due to the customers physical presence.

Loss or Theft: Product could be lost while on transit or even stolen.

Need Internet Connection: Connectivity to the web or online access is required for the partaking of customers in online shopping. They also require devices that connect to the Net (Bhasin, 2019).

Credit card Fraud: A customer could be defrauded with the exposure of his credit card information online.

Software development: Software is constantly being developed and modified. This poses limitations on online companies. For example, it requires companies to constantly update software as well as hardware required to support the development of software (Taher, 2021)

2.7 About Covid-19

Covid-19 (sometimes called ‘Coronavirus’) is a disease caused by the novel coronavirus first identified in Wuhan, China. It has been named coronavirus disease 2019 (Covid-19) -- ‘CO’ stands for corona, ‘VI’ for virus, and ‘D’ for disease. Covid-19 is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of common cold.

On the final day of 2020, China informed the World Health Organization of a newly identified coronavirus (Covid-19). Sadly, Covid-19 rapidly disseminated over the globe, posing a threat to many lives.

Covid-19 was confirmed to have spread in Bangladesh in March 2020. The first three known cases were reported by the country's Institute of Epidemiology, Disease Control and Research (IEDCR) on 7 March 2020.

2.8 How Covid-19 transmit

The virus is transmitted through direct contact with respiratory droplets of an infected person (generated through coughing), and touching surfaces contaminated with the virus. The Covid-19 virus may survive on surfaces for a few hours or up to several days (depending on the type of surface), but simple disinfectants can kill it.

2.9 Symptoms of Covid-19

Symptoms can include high fever, cough and shortness of breath. In more severe cases, infection can cause pneumonia or breathing difficulties. More rarely, the disease can be fatal. These symptoms are similar to the flu (influenza) or the common cold, which are a lot more common than Covid-19. This is why testing is required to confirm if someone has Covid-19.

2.10 Impact of the Covid-19 pandemic on the global economy

Covid-19 coronavirus pandemic has been, it has had severe negative impacts on the global economy. During 2020, the world's collective gross domestic product (GDP) fell by 3.4 percent. To put this number in perspective, global GDP reached 84.54 trillion U.S. dollars in 2020 – meaning that a 3.4 percent drop in economic growth results in over two trillion U.S. dollars of lost economic output. However, the global economy quickly recovered from the initial shock, reaching positive growth levels again in 2021. That year, it reached 92.3 trillion U.S. dollars and it is expected to continue to grow in the coming years, although Russia's war in Ukraine since February 2022 and its impact on the world's economy may hamper economic growth.

Covid-19 coronavirus pandemic has been, it has had severe negative impacts on the global economy. During 2020, the world's collective gross domestic product (GDP) fell by 3.4 percent. To put this number in perspective, global GDP reached 84.54 trillion U.S. dollars in 2020 – meaning that a 3.4 percent drop in economic growth results in over two trillion U.S. dollars of lost economic output. However, the global economy quickly recovered from the initial shock, reaching positive growth levels again in 2021.

Experts have suggested that the ongoing novel coronavirus outbreak will have a significant impact on developing countries, with a particularly large influence on South Asian economies. Among the South Asian countries, India, the largest country in South Asia, has already announced an economic stimulus package worth 1.7 trillion rupees ($22.5 billion), designed to help low-income families. In Pakistan, the informal sector, which is a cash-based sector, is likely to lose tens of millions of jobs, so the government will need to provide people with an absolute minimum income to meet their daily requirements. Covid-19 also had a significant impact on the Bangladeshi economy because it arrived at a time when several major indicators of the economy were already on a downward slope. Economists estimate a 40.0% decline in its $310.0 billion economy, with 0.89 million jobs at risk due to the pandemic in Bangladesh], while Bhutan's economy has incurred an estimated loss of $2.2 million since the Covid-19 pandemic started. The Nepali economy is likely to see an overspread effect mainly on the three fronts of remittance inflow, the tourism industry, and international trade. According to the Central Bank of Sri Lanka, if the pandemic was contained by mid-2020, the economic recovery would only start in the latter part of the year, and real gross domestic product (GDP) growth would be less than 2%. Additionally, the economy in the Maldives is dependent on tourism, which has dropped sharply due to travel restrictions.

Global stock markets also suffered dramatic falls after the coronavirus outbreak, although they were able to recover from the losses quite quickly. The Dow Jones reported its largest-ever single day loss of almost 3,000 points on March 16, 2020 – beating its previous record of 2,300 points that was set only four days earlier.

2.11 Impact of Covid-19 on E-Commerce in China

Many studies discussed this pandemic; (Dhar 2020) tried to explore the impact of Covid-19 on the economy of China. The study found the effects of Covid-19 on GDP, the balance of trade, and the stock exchange. Covid-19 negatively impacted Chinese exports and imports. Exports declined up to 17.5%, and imports decreased by 4%. The outbreak of Covid-19 also caused the decline of share prices, such as SSECI, which decreased by 36 points. Social distancing and isolation policies also minimized production and other economic activities. So, the GDP of China did achieve its targeted value due to the spread of the Covid-19 pandemic.

Liu and Hu (2020) examined the impact of Covid-19 on the Chinese economy. The study used the neoclassical growth model. The study found that while the Covid-19 outbreak did not affect China's domestic demand, the virus's global spread reduced the Chinese goods market. With time, China's social distancing policies caused a significant decline in production. The global spread of Covid-19 and the WHO-recommended border closures harmed trade balance. The study could not examine the long-term effects of Covid-19 on the Chinese economy. So, as Covid-19 spread globally, the saving rate increased in China, which may be used in economic activities.

The OECD (Yang and Deng 2021) studied the impact of Covid-19 on the global and Chinese economies. The study used the NIGEM macro model and suggested an exogenous fiscal policy to mitigate the study's adverse effects. In the worst-case scenario of COVID-19, more spending, lower taxes, and subsidies were beneficial. According to the study, China's demand fell by 2% to 4%. Commodity prices fell 10% globally, and the global GDP fell 0.5% in 2020. Due to the global spread of Covid-19, China's GDP fell 0.2%, and imports fell 6.0%.

To investigate the impact of Covid-19 on the economy (Wei et al. 2021), the study found that the outbreak of Covid-19 disrupted production, business, and households' standard of living. As the industrial sector is vital to an economy, Covid-19 harms their industry, causing many businesses to close. This situation makes it difficult for businesses to manage credit, staff, and expenses.

Luo et al. (2020) studied the Chinese economy and found several impacts of Covid-19. Globalization has accelerated the spread of Covid-19, which began in China. The study found that China's social distancing and isolation policies slowed the spread of Covid-19 but hampered economic activity. China's declining production and border closures affected global and Chinese economies. The study found a 3% global GDP decline in 2020, with developing countries losing 4% to 7%. The author used graphs to examine China's GDP growth and fluctuations in other economic sectors.

Wang and Su (2020) studied Covid-19 economic effects in China. The author estimated that Covid-19 broke out, and high risks cities shut down in January 2020. The study also investigated how China could spread Covid-19, which had no new cases in March. The study found that the Covid-19 outbreak reduced consumption. Shutdown policies also harmed other economic sectors, such as industry, transportation, tourism, and education. Moreover, the shutdown and isolation policies reduced investment, resulting in lower GDP growth. Export and import levels fell due to WHO restrictions, the author added.

Covid-19 had a negative impact on all sectors of the economy, but this study (Zhang et al. 2020) focused on the agriculture sector of China. This study also investigates the impact of Covid-19 on macroeconomic indicators. The author used SAM multiplier analysis to discover many results. The study found that China's GDP fell 6.8% in the first quarter of 2020, with the agriculture sector losing RMB 0.26 trillion. This represents a 7% loss in agricultural value-added and a 27% loss in agricultural employment. In 2020, the agricultural sectors

target growth rate was 1.1%, but it only reached 0.4%. The author stated that the agricultural sector suffered due to the drop in global demand for Chinese agricultural products.

2.12 Impact of Covid-19 on E-Commerce in USA

Several studies have focused on the impacts of mandatory closures during the spring of 2020 in the U.S. and other countries because of the Covid-19 pandemic, with assumptions of 3- and 6-month durations. The studies generally found the negative impacts on GDP to be in the range of 20–25% for scenarios similar to those that actually took place .Dixon et al. using a quarterly CGE model, have explored the macroeconomic impacts of Covid-19 in relation to several drivers over a two-year time horizon. They estimated a 19% reduction in GDP at the trough of the economic downturn at the end of the first quarter of 2020 and 12% decline by the end of the second quarter. CBO (2020) estimated that Real GDP contracted by 11% in the second quarter of this year, resulting in the number of people employed being almost 26 million lower than in the fourth quarter of 2019.5

A more recent study by Walmsley which examined the influence of several causal factors in three scenarios distinguished by the severity and timing of infections, extent of business closings, pace of reopening, influence of telework, increased demand for communication goods and services, shifts in expenditures on health care, and various types of avoidance behavior (with regard to public transportation, public gatherings, the workplace and schools), predicts between a 15% and 23% net impact on U.S. GDP. This large negative impact takes place even after the offsetting effect of pent-up demand, which reduces the gross impacts by one-third for the lower-bound scenario and two-thirds for the upper-bound scenario.6 These impacts range between $3.2 trillion in GDP losses for the lower bound and nearly $5 trillion in losses for the upper bound. They do not include the effect of countervailing fiscal stimulus packages. However, this is more consistent with the presentation for other types of shocks in this paper, which are gross effects and also do not include offsetting effects of spending on repair and reconstruction or of assistance to businesses, households, and other institutions.

Moreover, if we examine the loss of life from Covid-19, the impacts become even more enormous. An average of four major projections is on the order of 600,000 deaths in the U.S. before the pandemic has run its course. Multiplied by the VSL estimate, this comes to $6.12 trillion, dominating even the highest GDP impacts 7.

Most revealing is that the projections of GDP impacts even exceed those for the Great Recession in the U.S. Adapting figures provided by Christiano. Great Recession GDP impacts over the five years until its recovery were on the order of $2.8 trillion. However, these figures include the offsetting effect of very strong countervailing policies, while the studies cited above omit them. However, preliminary estimates of the offsets to GDP losses factoring in various stimulus packages implemented during the first four months of the pandemic reduce the upper-bound estimates of Covid-19 presented above by about 50%, thus

lowering the upper-bound estimate noted above to the level of the Great Recession. However, once we factor in the deaths in the pandemic, compared to zero or relatively very low levels of the Great Recession, the pandemic still continues to be the dominant disaster of this century, and the second largest over the last 100 years of U.S. history.

2.13 Impact of Covid-19 on E-Commerce in India

While the Covid-19 pandemic is constantly growing and showing little signs of containment as of 15 April 2020, its adverse impact on economic growth of the country will probably be very serious. The UN warned that the coronavirus pandemic is expected to have a significant adverse impact on global economy, and most significantly, GDP growth of India for the present economy is projected to decline to 4.8 per cent (United Nation 2020). Similarly, the UN 'Economic and Social Survey of Asia and the Pacific (ESCAP) 2020 reported that Covid-19 would have extensive socio-economic consequences in the region with inundate activities across borders in the areas of tourism, trade and financial linkages (United Nations, 2020).

Economic Survey 2019–2020 had provided advance estimates for growth in real GDP during 2019–2020 at 5.0 per cent, as depicted in Table 1, as compared to the growth rate of 6.8 per cent in 2018–2019. The nominal GDP is estimated at ₹204,400 billion in 2019–2020 with a growth of 7.5 per cent over the provisional estimates of GDP (₹190,100 billion) for 2018–2019. (Economic Survey, 2020, p. 100) On 28 February 2020, the National Statistical Office announced revised estimates of GDP growth, from 8 per cent to 7.1 per cent in the first quarter, from 7 per cent to 6.2 per cent in the second quarter and from 6.6 per cent to 5.6 per cent in the third quarter. Goldman Sachs estimated the growth rate of GDP at 1.6 per cent, declining by 400 basis points because of 21-day lockdown (Goldman Sachs, 2020). In case of a quick retraction of Covid-19 pandemic across the globe by mid-May, KPMG India estimated India's GDP growth in the range of 5.3 per cent to 5.7 per cent. In second scenario where India controls the virus spread but there is a significant global recession, the growth may be between 4 per cent and 4.5 per cent. KPMG India in its report estimated India's GDP growth rate falling below 3 per cent if the virus spreads further in India and lockdown sees an extension (KPMG, 2020). Motilal Oswal research suggests that a single day of complete lockdown could shave off 14–19 basis points from annual growth (Oswal, 2020). Barclays reported the cumulative shutdown cost to be around US$120 billion, or 4 per cent of GDP (Barclays, 2020). Mr Yashwant Sinha, former Finance Minister of India, estimated the cost of 21-day countrywide lockdown at 1 percentage point of GDP. The global recession and uncertainties of future might make a 2 percentage point decline in growth rate (for 2020–2021) possible.

Chapter Three
Literature Review

3.1 Related Study

We make an effort to give some background reading on this topic below. Discussion of the study's findings on the correlation between the Corona virus and online business.

The purpose of this study (Hasanat et al., 2020) was to investigate the impact of coronavirus (Covid-19) on e-commerce in Malaysia. The clutter has been removed from this investigation, and the fundamental search has been carried out for improved results. Given that the majority of products originate in China and the majority of sectors are closed, the findings indicated that there is no product import or export. This research (Nakhate & jain, 2020) set out to measure how the coronavirus has affected e-commerce. Most kits originate in China, where quality control is extremely strict. All shipping operations have been hampered by the spread of the coronavirus, stunting the growth of e-commerce on a national and state level. This analysis looks at how the Corona virus has affected online business in India. Based on the findings, it can be concluded that this epidemic has a significant impact on businesses operating on the internet. The research was conducted (Alber, 2020) to confirm the stock market's reaction to the COVID -19 pandemic.

All of these metrics helped to paint a picture of the full scope of the damage caused by the coronavirus. The research was conducted using the app in the six worst countries from March 1, 2020 to April 10, 2020. Return on investment was measured by an increase in an index, whereas the prevalence of coronavirus was expressed as a number of cases per million people. According to the study's findings, the cumulative indicators of coronavir virus appear to have a greater impact on stock market returns than do new indicators, and Covid-19 cases appear to be more market sensitive than deaths. As an added bonus, the durability check has confirmed the negative effect of the Covid-19 spread on stock market returns in China, France,

Germany, and Spain, but not in Italy or the United States. As (Pandey & Parmar, 2020) planned The goal of this study is to learn what drives people to make purchases online. According to the study's findings, a number of factors—including consumers' demographics and social circles, their level of online shopping expertise, their familiarity with computers and the internet, the quality of the websites they visit, the prevalence of various social media outlets, and the nature of the products themselves—play a role in influencing their online purchasing habits. Between March 1, 2020 and May 10, 2020, (Elsayed and Elrhim,2020) conducted a study to analyses how the dominance of Covid-19 affected Egyptian Stock Exchange sectorial indexes.

This fraction stands for the overall amount of human beings infected with the corona virus. It can be shown that the coefficient of determination for the dependent variable, which is a sample from four distinct economic sectors, is (information technology and media and communications services 0.393, industrial goods and services and cars 0.470 and health care and medicines 0.327 and basic resources 0.266). Without immediate worldwide action to halt the spread of Wuhan 2020nCoV, (Ayittey, et al.2020) estimate that China might lose as much as $62 billion21 in the first quarter of the year and the globe could lose more than $280 billion over the same time period. 15 A mild influenza pandemic, such as that produced by the 2009 H1N1 viruses, could nevertheless wipe 0.5% off global GDP, or around $300 billion, according to the World Bank.

Challenges of Internet Purchasing Theoretically, online stores of all sizes should gain from the shift in consumer behaviour to online buying since they are better equipped to handle the increased demand for products and services. To go where you want to go, though, you'll have to overcome some challenges.

In addition to the fact that e-commerce is not a panacea, the difficulties associated with its widespread adoption (especially among lower-income consumers) act as a brake on any potential increase in sales. In order to address issues in the supply chain and product delivery, businesses have begun to develop novel approaches.

Even more restricting for companies is the readiness of their ecommerce offering (Alber, 2020). To attract new users and keep existing ones interested and engaged, an online platform needs over provide a superior user experience to the competition. Making sure your online storefront is polished and free of bugs is crucial to your business's success. Business success or failure will also depend on how competitive your company is in an increasingly competitive market. Analysts predict that stores still trying to catch up to the e-commerce game will suffer the most during the current uncertainty, while successful brick-and-mortar firms will suffer even if they have decent websites, as reported by Fortune. These dire warnings emphasise the importance for businesses to provide not merely a good, but a great user experience on their websites. They need to give the finest ecommerce experience possible. The first step in getting customers to buy from your online store is making it easy for them to find. It is crucial that once users reach the e-commerce site, the platform is quick to respond and able to meet or exceed their expectations (Majali, 2018).

There have been significant shifts in how people look for clothing online, as reported by (Ayittey et al., 2020). Many people who seek for popular clothing labels end up at their sites. For one UK-based fashion retailer, branded search traffic plummeted by around 40% when tough new measures were deployed in the middle of March to combat the COVID-19 virus (for some other fashion brands, the decline was as high as 70% during the same time period). During this time, people were less likely to conduct a web search for "fashion" in general, as seen by a decline in traffic to a fashion website.

There is inconsistency in the statistics from various different online marketplaces. The following UK brand within the Home and Hardware sector will be affected differently than

other sites and sectors due to shifts in consumer behavior. However, it cannot be denied that user engagement is having a significant, and frequently radical, impact on online consumer behavior.

As the effects of Covid-19 continue to weigh on the world's population and people make adjustments, businesses with a strong ecommerce offering may ensure their presence when customers need them. When Nike, for example, merged their fitness and e-commerce apps, they saw a 30 percent increase in their online sales. More and more companies are entering the market in an effort to profit from the growing number of customers who prefer to make their purchases online, increasing competition. If search engines can't find your site for relevant search or if your site loads more slowly than your competitors' website, you'll have a much harder time competing.

This shortfall is like putting digital salt on a wound in today's gloomy economic situation. According to a (Hasana et al., 2020) businesses would benefit greatly from using (or increasing their current use of) digital marketing strategies like analytics, SEO, content marketing, CRO, PPC, and paid social. Investment in these areas may help businesses survive and even thrive in a competitive market and make up for the decline in traditional offline sales. Spending on these marketing strategies will ensure that internet market share is not lost, and will position firms for the inevitable uptick in demand once the current crisis has passed.

We recently shared some tips for keeping your digital strategy safe from the spread of Covid-19. The essay offers some groundwork for businesses to examine their existing offering and secure their future in these trying times. Although continuing to spend in paid media online for brand promotion is a good idea throughout this crisis, it is likely that paid media strategies will evolve. A successful paid advertising campaign may need to change with the times and use a new set of keywords to appeal to customers' ever-evolving keyword preferences. Most people are at home, so many clothing companies are trying to shift their focus to loungewear. Opportunities for other kinds of content and tweaks to on-page optimization may be discovered in paid media, requiring an adjustment to bid tactics (we offer specific advice on this topic on our blog).

It's common practice to see the production of editorial content as a "quick win" due to the fact that it typically necessitates little to no technological involvement and can be completed in little time. What makes for outstanding editorial content is knowing what your readers are seeking for and offering it to them in spades. Since the lockdown began, many have stayed at home and had more time to browse the web; thus, several e-commerce enterprises are seeking to adjust their content marketing to cater to these people.

This behavior exemplifies the need of companies conducting in-depth data analysis to better understand the evolving needs of their clientele. Since consumers today spend so much time online, any enhancements to the user experience or page load times will have a substantial impact on the site's ability to retain and acquire new customers. A comprehensive analysis of page load times across devices will typically reveal multiple opportunities to increase site speed.

According to studies (El-Sayed and El-Rhimi, 2020), page load times have a negative correlation with conversion rates. Google has started using page load times as a ranking factor. When page load times were increased by only one second, Amazon noticed a 7% decrease in conversions. Even while it doesn't look like much now, Amazon's sales climbed by 7%, which was $1.6 billion at the time. Page load times are a clear opportunity to increase average revenue. Similarly, analysing and optimising the paths taken by repeat users to a site can provide those visitors with a smoother and more satisfying experience.

It has been shown that (Majali & Bohari, 2016) Heuristics for checking out A boost in happiness is practically guaranteed from such a satisfying experience.

People's shopping patterns are changing as a result of the Covid-19 outbreak and the subsequent global recovery effort. E-commerce sites are well-positioned to take advantage of this trend, but only if they are visible to potential buyers. It's possible that fresh circumstances will need a shift in strategy. In spite of this, businesses should consider maintaining their investments in analytics, online marketing, and online content in order to remain competitive and meet the needs of their customers.

Even in the face of adversity, it is possible to find success by shifting one's perspective, adopting a fresh strategy, and maintaining an optimistic outlook. Our rapidly evolving responses to internet channels as a result of the pandemic are likely to persist long after the epidemic has ended. In the short term, many businesses face difficulties. In spite of the difficulties, this time of turmoil presents an excellent chance for forward-thinking companies to establish themselves as market leaders through the implementation of well-timed and strategically-planned improvements to their online presence. As a means of assisting business owners in adjusting to the new e-commerce reality, we have outlined seven steps they should take immediately.

If the (Fernandes, 2020) Covid-19 has created a world-wide emergency. Those in charge at all levels of government, the nonprofit sector, and the private sector must make tough choices in the face of unprecedented uncertainty. While the present is of paramount importance, it is important to remember that the crisis, like other historic crises, will leave a permanent mark on the social and economic order of the future.

The ways in which we as a society conduct business, acquire knowledge, make purchases, and make advantage of technological advancements are all undergoing significant transformations. These tendencies were already present before the crisis, but now they appear to be speeding up, suggesting that a new normal may soon emerge. Those who are agile enough to adapt quickly will prevail, but those who can step back and look at the big picture will ultimately prevail.

Companies who bravely and promptly invest in pivoting their businesses to take advantage of the shifts in consumer behaviour stand to gain the most from the aftermath of the pandemic.

Now is the time to set up that digital marketplace, that click-and-collect universe, or to hire that crucial digital talent you've been considering so that your business is ready to fight when the pandemic is over.

3.2 Related Worldwide

1. China is the world's biggest e-commerce market. With an annual growth rate of 21%, China is also one of the fastest-growing e-commerce markets. Annual online sales: $2.78 trillion E-commerce share of total retail sales: 52%

2. United States is currently the second-largest e-commerce market. Led by e-commerce giants Amazon and eBay, Annual online sales: $843 billion E-commerce share of total retail sales: 19%

3. United Kingdom Kingdom is a big e-commerce player and comfortably secures third place on this list. Amazon U.K., eBay U.K., and Asos .Annual online sales: $169 billion E-commerce share of total retail sales: 4.8%

4. Japan Coming in at fourth. Rakuten is Japan's leading e-commerce platform, which over the years has acquired many e-commerce sites across the world, including the U.K.'s Annual online sales: $144 billion E-commerce share of total retail sales: 3%

5. . South Korea comes in at fifth place on this list. South Korea is also one of the leading m-commerce markets. The biggest e-commerce names in the country include Gmarket and Coupang. Annual online sales: $120 billion E-commerce share of total retail sales: 2.5%

6. Germany is Europe's second-largest e-commerce market. Amazon is a major player in Germany's market as well. eBay and local online retailer Otto are two other major e-commerce players in the country. Annual online sales: $101.5 billion E-commerce share of total retail sales: 2.1%

7. France With local players like Cdiscount and Veepee, the French e-commerce market comes in at sixth place in the world. Like in other major European e-commerce markets, though, Amazon has edged out local brands to reign supreme in France. Annual online sales: $80 billion, E-commerce share of total retail sales: 1.6%

8. India is one of the fastest-growing e-commerce markets. According to eMarketer, thanks to an increase in retailers joining the online shopping ranks, India was projected to see digital sales increase by 27% in 2021. Annual online sales: $67.5 billion E-commerce share of total retail sales: 1.4%

9. Canada is a huge e-commerce market but with little competition. Naturally enough, Amazon dominates the country's e-commerce market, followed by Walmart. Given the opportunities Canada presents as an e-commerce market, foreign brands are also trying to take a slice of it. Annual online sales: $44 billion E-commerce share of total retail sales: 1.3%

10. Spain Three main companies dominate the e-commerce market in Spain. According to , Amazon, El Corte Ingles and Pc Componentes account for 30% of all online revenue in Spain. Annual online sales: $37 billion E-commerce share of total retail sales: 0.72%

2.3 Related Bangladesh

Bangladesh started her journey a few years from now and after that “the trend of growing the internet subscriber is increasing rapidly which indicates the people’s interest in the internet and related technology” including f-commerce (Hossin, Sarker, Xiaohua, & Frimpong, 2018). The government of Bangladesh is trying to improve this industry more. A study confirmed some factors that can be used to improve the e-commerce business in Bangladesh (Bosu, et al., 2019). Also, Jamil proposes some success factors that can be used in e-commerce in Bangladesh (Jamil & Ahmad, 2009). A research paper shows that the top popular online shopping site in Bangladesh is facebook.com (Rahman S. M., 2015). Bangladeshi people prefer Cash-on- delivery (COD) for payment in online business but slowly Mobile Finance Service (MFS) users are growing in this country because “MFS users do feel it is easier to use when it comes to paying for online shopping” (Chowdhury, Hossain, Habib, & Yue, 2019).

Currently, there are approximately 2,500 e-commerce sites and 150,000 Facebook-based outlets operating in Bangladesh and 80% of the total online sales are taking place in Dhaka, Chattogram, and Gazipur, Syllhet

In this context, the Statista has said that Bangladesh is in the 47th position in the world of e-commerce. However, the challenge is the delivery of goods to outside the cities. In this sector, 90 percent of the products are cash on delivery. However, there is some fraud in the name of pre-order in bringing foreign products.

According to the latest data from Statista, the e-commerce market in Bangladesh in 2019 stood at 1,648 million US dollars which will increase to 2 thousand 77 million this year and in 2023, the market size will be 3 thousand 77 million dollars. 25,000 small and medium enterprises (SMEs)

Chapter Four

Analysis of Study

4.1 Connectivity

The percentage of the population that has access to the internet is changing over time. In April 2022, there were more than five billion internet users worldwide, which is 63.1 percent of the global population. Of this total, 4.7 billion or 59 percent of the world's population were social media users where access to the internet, up from 45% in 2014.

4.1.1 Global internet usage

By now, it is not possible to imagine the world without internet. Connecting billions of people worldwide, the internet is a core pillar of the modern information society. The global internet penetration rate is 62.5 percent, with Northern Europe ranking first with a 98 percent internet penetration rate among the population. The countries with the highest internet penetration rate worldwide were the UAE, Denmark, and Ireland. At the opposite end of the spectrum is North Korea with virtually no online usage penetration among the general population, ranking last worldwide. As of 2021, Asia was the region with the largest number of online users – over 2.8 billion at the latest count. Europe was ranked second with almost 744 million internet users.

4.2 Cashless Transactions

The growth of e-commerce depends on people being able to access and use digital financial services, which in turn requires financial inclusion. Online purchases made in countries with unrefined digital monetary services must accept cash on delivery, increasing the inherent dangers and expenses of online transactions.

4.2.1 Digital Payments system

Digital payments also can called Electronic payment E-Payment A digital payment, sometimes called an electronic payment, is the transfer of value from one payment account to another using a digital device such as a Computer, Mobile phone, POS (Point of Sales), a digital channel communications such as mobile wireless data or SWIFT (Society for the Worldwide Interbank Financial Telecommunication). This includes payments made with bank transfers, mobile money, and payment cards including credit, debit and prepaid cards.

4.3 Web-Based Resources

Movement restrictions, closures, and lockdowns have been implemented in the majority of countries around the world.

The need for remote teamwork and electronically distributed services has increased all across the world supplanted the traditional method of providing services by sending someone to your location to perform the task. The results of a UNCTAD survey provides a measure of how much that expansion has accelerated, and how much of a cultural upheaval it has been online websites and apps where people may buy things and have fun. To guarantee their survival, businesses everywhere shifted to more scalable structures. Many people doing their jobs remotely and making more purchases online.

As a result of the pandemic, online commerce has increased. A rise in e-commerce has coincided with the rapid growth of social media and other online channels. In traditional retail, sales were down. Online sales increased by 50% year-over-year in Q1 2020.

It appears that the UNECE region has been affected by the same global trends in e-commerce that have caused rises in other parts of the world.

Having seen an increase of over 10% in their internet clientele during the pandemic, online sales peaked and then declined. Online sales appear to have skyrocketed in most of the countries the world. Despite difficulties in shipping and handling, online sales increased during the pandemic.

Express courier companies saw an increase in package shipments in 2020. DHL Express, which saw a 35% increase in package volume.

4.4 Classes of Services and Products Bought Via the Internet

Before the pandemic, people in the region primarily bought things like books, air tickets and movies online rather than groceries. After starting pandemic merchandise ranging from clothing to footwear and consumer gadgets in the world people bought medicines, electronics, and other necessities during the lockdowns. Meals, cleaning supplies, and cosmetics are just few of the products and groceries Products from these categories dominated online shopping. Merchandise in the categories of apparel, footwear, and sports equipment, then groceries and home furnishings. From the months of March through In May 2020, the same products continued to dominate home electronics were relocated when employees set up their remote access systems it’s likely that consumers' preference for internet shopping will only grow in the years to come. Online business opportunities in UNECE's developing economies after the pandemic, consumers are likely to continue purchasing online for the following key product categories food, household items, retail, entertainment, and distance education healthcare via remote means and virtual exercise and health programmers.

4.5 Communications and Transportation

Goods moving across international borders in the UNECE zone were impacted by the pandemic. In the month of July 2020, it was stated that global freight traffic has decreased by 13.5% annually. Prior to lockdowns, travel restrictions, and the epidemic, one-third of the value of global trade was transported via air. During the early stages of the epidemic, restrictions and quarantine measures had considerable impact flying activity, both for passengers and freight, has decreased. But by mid- to late-2020, international logistics ocean freight and Shipping container rate was extreme higher.

Despite Europe's extensive road and rail networks, much of the continent's e-commerce still relies on the more traditional mode of transport: air cargo.

Transportation by road is used for delivery purposes. In Central America, however, and indeed throughout the area, travel bans and mandatory quarantines impacted the Asian and Caucasian regions' cost, time, and accessibility of road-based shipping options.

Shipping containers were also impacted. Statistics show that more than 80% of the world's total commercial trade volume is transported by the world's shipping industry. The first quarter was negatively pandemic, container trade at several ports throughout the world dropped by 10%.

More than 30 different places witnessed a rise in the third quarter of 2020, although dockings still fell short of their 2019 level because of the continent's well-developed road and rail network, much of the world's e-commerce takes place in Europe.

4.6 Comparative Market Share of Online Stores

However, there is a lack of standardized metrics for measuring the scope and dynamics of the e-commerce industry. Referring to the following subsection hence only highlights a certain number of countries' patterns.

However, business-to-consumer e-commerce in Central Asia and the Caucasus is on the rise. Its although still a relatively insignificant fraction of total retail sales, the share of transition economies is on the rise as connectivity rates increase.

4.7 Increasing numbers of people are using digital products.

According to the statistics, 18.4% of the 33% of the Central Asian population used e-commerce for business-to-consumer purchases in 2019.

4.8 The Bangladesh market

There are approximately 2,500 e-commerce sites and 150,000 Facebook-based outlets operating in Bangladesh and 80% of the total online sales are taking place in Mainly Dhaka, Chattogram and now all over the country but mainly in urban areas. According to the president of the e-commerce association of Bangladesh (e-cab), the current market size of E-commerce in Bangladesh is around USD1 billion (BDT 8,000 crore). Market Size:$1 billion (BDT 8,000 crore) Market Growth Rate: 75% per year Market Players 35,000 individuals 25,000 small and medium enterprises (SMEs)

4.9 Market Developments in Trade Facilitation

As a result, e-commerce necessitates a streamlined and effective delivery system if it is to live up to the high expectations of economic setting for trade. Formalities and processes in electronic form, resulting from business-to-government communication. Customers should expect to pay for services. Yet, online shopping occurs in a setting optimized for the conduct of conventional commercial transactions infrastructure and services for moving goods and people, participants in the supply chain, and trade procedures. Digital transactions have been implemented by customs administrations globally as a means of make personal contact and guarantee productive processing even when resources are scarce. There are several of these transient, but governments and traders are trying to make it permanent. Automation and digitalization of trade and border-related processes are necessary to ease trade.

This section presents a synopsis of recent developments and trends in trade facilitation prior to and during the pandemic, economies in transition in the world were analyzed, with a focus on on where we stand with putting into effect the provisions outlined in the World Trade.

Chapter Five

Findings

5.1 Findings

This research shows that Alibaba, Ebay, Amazon etc. have developed that want to keep serving their consumers online throughout the crisis by creating a specific website with useful information. There would be a dual function to the website. The site's primary function is to provide information to companies interested in expanding their operations online. During the crisis, it should make it clear what can and cannot be done. In addition, it needs to educate companies on crucial next steps (such as promoting their online sales channel, determining their preferred method of payment and shipping, and possibly even selling on the huge e-commerce platforms).

- Consumers are choosing online shopping more than ever.
- Consumer loyalty to their specific brands has fallen & regional goods sales are getting a push.
- Several social media platforms took advantage of higher online retail demand by adding more commerce features.
- The cost of goods stays a little cheaper as online shopping omits several costing.

Alibaba group has encouraged other business owners to make the leap online; the website might feature profiles of locally based companies that have found success in e-commerce.

Second, the site should link customers with nearby companies that can provide online services during the emergency. It would be more convenient for local consumers to find what they need if local businesses could post their online offerings on the website. In other countries, sites with similar features have already been launched.

A well-regulated market and essential for the growth of digital transactions as a means of enforcing social distance has been approached by ecommerce site during Covid-19. Digital signatures and documents, online consumer protection, and data privacy laws are just a few examples of the ecommerce regulations that the vast majority of countries in the lower middle income bracket have enacted. However, there is still work to be done to ensure that these regulations are being used to their full potential by businesses and the general public. Instead, the legal framework for e-transactions is weak, and they are not recognized by law, in most low-income nations. Here is a chance to rethink the regulatory framework and give top billing to the statutes and ordinances that really matter.

Retailers can keep their prices down by selling their wares online rather than in a physical shop. Because web-based management systems can automate inventory management, most internet stores can get by with fewer employees, and storage space isn't always necessary. Because of this, the owners of e-commerce companies can afford to transfer the savings they see on operationally on to customers (in the form of product or service reductions) without jeopardizing their profit margin. In addition, the proliferation of price comparison websites has given shoppers more information to make educated decisions, with many opting to do

their buying entirely online. E-commerce websites offer convenience and accessibility to customers because they are always open, unlike many brick-and-mortar establishments. Customers can access information about available services and products at their convenience. This is one way in which online purchasing is both time-saving and customer-empowering. Those who don't have easy access to shopping centers can save time and effort by placing an order from the comfort of their own homes with the click of a mouse. Thirdly, more options have been available to consumers over the past twenty years, which has contributed greatly to the rise of online shopping. Consumers are no longer constrained by the limited availability of certain brands or products in their own town, city, or nation. The items can be ordered and delivered from anywhere in the world. One study indicated that consumers are becoming increasingly annoyed by e-commerce sites that provide too many options for purchase. More options have certainly been beneficial in the long run regardless of your perspective. According to a Forbes survey, while females are more likely to express concern about Covid-19, males are more likely to have their purchasing habits altered by the outbreak. The pandemic has affected the shopping decisions of one-third of males and 25% of women. More than a third of men (36%) and nearly a third of women (28%), respectively, stated it influences the amount they are willing to spend on experiences (travel, restaurants, entertainment, etc.).

Most studies of the effects of the Covid-19 epidemic have looked at the financial consequences; this one looks at the effects on the global online retail sector. The results demonstrate that the global e-commerce market is affected by the spread of the coronavirus, with the independent variable of total deaths being the most important and influential on the returns of the shares of global e-commerce companies, followed by the independent variables of total cases and (variable not measured) (new cases).

Companies in different countries were affected by the spread of the coronavirus to varying degrees; in China, for example, Alibaba saw the greatest impact from the virus on their stock price returns, with "Corona virus cases" being the most important factor (along with "cumulative deaths") in the model (The Alibaba Group, 2020).

5.2 Impact of Covid-19 on E-Commerce

Since the official announcement from WHO (The World Health Organization declaring the Covid-19 a global pandemic, many countries have put restrictions and lockdowns. This has left businesses to work from home, which is possible for IT- related and e-commerce companies. It is the only option business owners have and has put e-commerce under pressure due to the Covid-19. Due to its fast spread, the brick mortar shops are closed down since the end of the second month, which has left people to shop from e-commerce stores.

• This has suddenly spiked the number of orders coming to e-commerce stores exponentially. And fulfilling those orders has become a headache due to disruption in the supply chain. Also, the behavior of online shoppers has changed.

• Ecommerce sectors like grocery, food, health care, and entertainment websites have seen a spike in traffic. The e-commerce sales have increased by 52% YOY. Also, the number of shoppers has been increased by 8.8%. Travel and airline sectors along with other sectors such as apparel, sports goods, arts and crafts, toys, and other e-commerce sectors have been suffering due to the alleged Covid-19.

• According to data from Unicommerce, an e-commerce solutions provider, online shopping volumes dipped 11% in April from the month ago. That's in line with what executives told ET—the effects of the current wave of Covid-19 have hit consumer demand for non-essential segments, both in urban and rural markets.

• Expectations of a demand revival are driven by the belief that consumers will continue to avoid offline shops and malls. Unicommerce data further showed fashion and accessory sales were down 22% in the same period while eyewear and accessories were down 16%. Only fast-moving consumer goods (FMCG) and agro, and health and pharmaceuticals, saw growth of 33% and 18%, respectively.

• Impact in Europe and North America 6%: e-commerce revenue decreased during lockdown Of course, there were questions about Covid-19. It seems that most e-commerce companies saw their online revenue increase during the global lockdown in the spring of 2020. According to the survey, 90% of companies saw their online sales increase at least a bit, with 50 percent of respondents claiming it grew by over 100 percent. But still, 6 percent say their e-commerce revenue decreased during the lockdown.

After the lockdown was over, many consumers started shopping at brick-and-mortar retailers again. Still, 86 percent of respondents say their online revenues increased and only 4 percent say it decreased.

5.3 Impact of Covid-19 on E-Commerce in Bangladesh

Like all over the world Bangladesh E-commerce sector of the face some challenging impacts. Starting of the lock down online order has declined drastically international supply face obstacles due to Covod-19 international supply chain.

Covid-19 creating a major supply chain uncertainty and same time create demand uncertainty." A few numbers of essential goods are sold through e-commerce, but luxury items, brand items, fashion items, festival items are less in demands both small and large companies unable to get their raw material and goods due to world stacks tremendous difficulties for supply chain.

Bangladeshi main RMG sectors entering trouble for receiving orders so a large number of companies unable to repay their loans. Many of small companies not able to pay employs salary, utilities bills, and rents and many of them are forcefully shutting down of business or fires theirs employs.

As people are lockdown in their home, all activity including all business operations, study going through online. So naturally people become friendlier with online.

As a result most of all brick and mortar companies trying to established their online presence.

Currently, there are approximately 2,500 e-commerce sites and 150,000 Facebook-based outlets operating in Bangladesh and 80% of the total online sales are taking place in Dhaka, Chattogram, and Gazipur,.

According to the president of the e-commerce association of Bangladesh (e-cab), the current market size of E-commerce in Bangladesh is around USD1 billion (BDT 8,000 crore).

Chapter Six

Recommendations, Conclusion and Reference

6.1 Recommendations

As the form of e-commerce business new with many of people's so automatically transactions increases so payments supply chain distribution many sectors need to organizing and monitoring. The following recommendations are hereby proposed:

(i). Educated People: Online shoppers should be well informed of the security threats that are associated with online shopping. A system is only as secured as the people that use it. So people can't enter any scam.

(ii). Using Safe Internet: When connecting your computer or Mobile device to a network please make sure that network safe.

(iii). Securing Payment Gateway: E-commerce business undertakers should avoid storing the credit card information of their clients on their database. The customer should also avoid storing their financial details on their phones and online devices. Highly recommend let come well experienced a third party such as PayPal, Alipy, Google pay, Wechat pay and Strip, handle the payment transactions. This ensures better safety for the organization and customers' personal and financial data.

(iv). Securing the Administration Panel and Server: It is advisable to always use complex passwords that are difficult to figure out and make it a habit of changing them frequently. It is also good to make the panel to send you notifications whenever a foreign Internet Protocol (IP) tries to access it.

(v). Use anti-malware and anti-virus: An anti-malware is a software program that detects, removes, and prevents infectious software (malware) from infecting the computer and IT devices.

(vi). HTTPS and SSL certificates: Always enter ecommerce sites who own HTTPS and SSL certificate. The HTTPS protocols not only keep users' sensitive data secure but also the organization data.

(vii). F-Commerce: Now a day's developing countries F-Commerce very popular form of e-commerce and here most of people like to buy Cash on Delivery (COD) but before placing order should check the internet for reviews about the organization and the product.

(viii). Government e-commerce policy: The government should build an enabling e-commerce environment which requires changes in public policy and business practices to improve the digital and trading infrastructure, facilitate digital payments and establish appropriate legal and regulatory framework for online transactions and security in the country.

No one wants regulations on international data transfers to stand in the way of people in developing countries making purchases online. It will take a medium-term reform strategy, however, to get over other structural impediments or build a fully viable regulatory and institutional environment for e-commerce. Adoption or revision of appropriate implementing

regulation in the form of decrees or resolutions may be necessary, at least in the short-term. A minimal emergency regime could, for instance, allow data collection during the health crisis on the basis of individual consent or "vital interests," protecting privacy while nevertheless permitting data gathering for purposes related to limiting the spread of the virus (see France). In order to slow the spread of the Covid-19 virus, it may soon be possible to create an online forum where ordinary citizens can express their desire to see regulations restricting e-commerce either discarded or put on hold (in a similar spirit, see US).

Clarification (and relaxation, if necessary) of the legal framework governing the online delivery of professional services is required to accommodate this expanding industry. This is especially true with regards to the sale of medical and other health services. Unfortunately, the legal landscape around the online delivery of professional services differs widely between countries, and even then, there may be a lack of clarity in a number of crucial areas. The regulatory frameworks of all industries should be carefully examined. Doctors, for example, should be given wide latitude to rely on telemedicine for the duration of the crisis. Telemedicine should be reimbursed by health insurance providers in the same way as traditional doctor's office visits. Call centers also require guidance on the extent to which remote work is permitted during an emergency. They need to know how to safeguard their clients' personal information and keep tabs on their remote workers (see UK facing similar challenges). In the event of an injury, online fitness instructors instructing clients in the comfort of their own homes should be provided clear instructions on how to deal with any potential legal liability.

Collaborate with business to ensure that people from all walks of life, especially those at the bottom of the socioeconomic ladder, may participate in the digital economy. Mobile network operators and Internet service providers could be urged to give emergency discounted mobile and fixed line Internet packages. If there is a plan in place to deal with cash flow problems, Internet access may be considered a crucial service that must remain operational even if bills go unpaid. Universal service funding could be redistributed to underserved communities, and stores selling computers, laptops, tablets, and mobile phones could offer discounts to encourage internet access. In this window, internet content producers should be incentivized to make available, without charge, a variety of services, including but not limited to, basic online fitness and mental health programmers, digital newspaper subscriptions, and movie streaming archives. The government may enter into agreements with private and public training providers to provide low-income individuals with free or significantly subsidized online access to comprehensive educational opportunities.

The government may negotiate subsidized or free grocery delivery service for high-risk demographic groups to further stimulate ecommerce and give more protection against the virus (such as the elderly). Many players in the commercial sector may be persuaded to join such partnerships by appealing to their sense of national responsibility and solidarity during the crisis and the possibility of reaching prospective new clientele. Sometimes, a government subsidy is needed, but only for a limited time. The government may utilize its website, television announcements, and email messages to present a summary of the discounts and

other resources available during the crisis to ensure people are aware of these.

The second set of measures is meant to protect online enterprises against the spread of Covid-19 while they remain operational. Currently, as the digital economy battles to recover from the crisis, gaining people's trust is more important than ever. Equally vital is ensuring that e-commerce, a key strategic sector in the fight against the virus, can maintain operations throughout the lockdown.

Draft and publish a set of regulations for businesses to observe when conducting online sales during the Covid-19 epidemic. Health and safety guidelines for, online grocery stores and food delivery services and delivery personnel would be established under the code of conduct. The guideline would clarify what is and is not permitted during the crisis and assist firms adopt best practice protocols to prevent contamination. Customers' confidence in the service's ability to keep them safe from the virus throughout delivery would be bolstered by the presence of this code. Online distribution may be made mandatory if it met certain minimum standards. It's possible that the adoption of more advanced standards may be entirely voluntary; if interested delivery services signed up for the requirements online, they would be able to claim that they adhere to the more stringent standard.

Maintain rigorous oversight and strict enforcement of safety and quality requirements for online merchants. Businesses that operate online have a special obligation to prevent the spread of malware during the current pandemic and to keep customers' personal information secure. Customers may be more vulnerable to internet frauds such as phishing for personal information and the selling of false virus remedies/tests as a result of the confusion caused by the crisis. Even in the midst of this crisis, the government must keep a watchful eye on the digital economy and implement rules to protect consumers and promote online shopping. Safety for buyers must come first.

Inform the general public, especially households and SMEs, on how to implement even the most fundamental cyber security safeguards while making purchases online. The government can enlist private people to help ensure that the code of conduct for e-commerce enterprises and delivery services is observed during the Covid-19 pandemic by making the public aware of the code of conduct. Customers might be better protected against online scams if they are aware of the risks involved. Customers who become aware of misconduct should be able to easily report it and, if required, seek remedy.

In this difficult economic climate, it is important to encourage businesses to adopt electronic payment systems. Some companies who normally wouldn't accept online purchases during the crisis might start doing so if they see a surge in demand but they don't have the means to process electronic payments or if many of their customers don't have access to other payment options. Completely cashless online payments are a possible option during the Covid-19 crisis because they do not require any in-person currency exchange. Businesses and families need easy access to remote electronic payment capabilities during the

crisis, thus governments should engage closely with banks and e-money providers to streamline the onboarding process.

Regulators should make it clear how much latitude they can provide financial service providers in decreasing paperwork requirements for new users without increasing the risks connected with AML/CFT. The government should promote the use of electronic payment methods by spreading information about their public health benefits, thereby increasing public pressure on businesses and customers and fostering the development of trust.

Ensure that the mail service and other parts of the logistical network can continue operating normally. Online retailers frequently rely on the national postal service as their primary (and least expensive) delivery option for customers. This vital public infrastructure service must therefore be maintained during the crisis while appropriate changes are made to safeguard public health. During this time of crisis, the postal service can be improved so that it is better equipped to handle the rising parcel volumes connected with e-commerce.

With this third set of measures, the government aims to improve the usability, efficiency, and consistency of the e-commerce approach it has adopted during the crisis. The general public must be made aware of e-commerce measures for them to work. In order to effectively combat the epidemic, all actions must be firmly rooted in the national policy.

Create COVID-19 budgetary policies that encourage the growth of digital retail channels.

No monetary incentives should discourage companies from creating internet sales channels. A restaurant, for instance, shouldn't be penalized financially because it's also developed a thriving internet takeout company. Tax frameworks should provide a transparent and administratively simple approach for the e-commerce sector to comply with tax obligations, and this includes marketplaces that provide intermediation services as well as sellers of goods and services with an online presence.

Establish a virtual company committee. The world of electronic commerce is a hub where many branches of government meet. Therefore, governments should consider assembling a group of public and private sector representatives to work together. The committee should hold regular meetings to review the progress of the e-commerce action plan, discuss how the industries as a whole is evolving, and determine if any changes are needed to the plan.

6.2 Conclusion

Each stage of the Covid-19 epidemic was investigated in this report. Understanding how the coronavirus impacted E Commerce businesses and economies around the world, and how e-commerce helps individuals satisfy their needs, can be aided by spreading awareness about this topic and providing better information to the public. And it will aid other academics in examining how the coronavirus altered the current state and outlook of online trade.

Rapid global expansion of the internet and the digital world has had far-reaching effects on people's social and cultural practices. Customers now have instantaneous access to new products and a plethora of product-related information thanks to this breakthrough. Although e-commerce and online sales have grown in popularity in recent years, most consumers still prefer to purchase at brick-and-mortar establishments. However, due to the widespread spread of the coronavirus, many consumers have resorted to making purchases online instead of in stores.

The pandemic has had far-reaching effects on all facets of society and the economy. People avoided public gatherings and shopped only online as a result of government precautions and the threat of Covid-19. As a result, there is a dramatic increase in the amount of money exchanged and purchased online as compared to pre-pandemic levels. Some restrictions, such as curfews and bans, were instituted but later relaxed or eliminated. Still, consumers have learned to rely on internet shopping and are carrying on despite the drawbacks. Although the volume of online trading has fallen somewhat as a result of the lifting of bans and limitations in some countries, significant progress has been made for the future, and this trend will continue. Everyone will think it's more convenient to buy groceries and everything else they need online until the vaccine works. There may be an argument that in the areas hit most by this epidemic, sales of some products have decreased even as sales of others have increased. There is no doubt that Covid-19 has had a major impact on global e-commerce, both positively and negatively. Customer adoption of internet use has been accelerated by the coronavirus. People spend more money on hygiene items, medicines, and cosmetics during a pandemic.

With the world at war against the Covid-19 virus, it is imperative that corporations and businesses assess the financial impact of the current crisis. As a result of the crisis, there are new opportunities that can be explored, and businesses can take advantage of these.

Companies and governments were forced to rethink their production and distribution methods in the wake of the public health emergency caused by the Covid-19 virus. Now, in the event of another pandemic, the appropriate infrastructures would be in place to meet the needs of consumers for all types of goods and services.

Reference

6.3 Reference

The Alibaba Group (2020). Alibaba Group Announces March Quarter and Full Fiscal Year 2020 Results. Available at: https://www.alibabagroup.com/en/news/press_pdf/p 200522.pdf.

Fortune (2020). World's 25 Greatest Leaders: Heroes of the pandemic. Available at: https://fortune.com/worlds-greatestleaders/2020/search/

Nag, R., Hambrick, D.C. and Chen, M.J., 2007. What is strategic management, really? Inductive derivation of a consensus definition of the field. Strategic management journal, 28(9), pp.935-955.

Elenkov, D.S., Judge, W. and Wright, P., 2005. Strategic leadership and executive innovation influence: an international multi-cluster comparative study. Strategic management journal, 26(7), pp.665- 682.

Crook, T.R., Ketchen Jr, D.J., Combs, J.G. and Todd, S.Y., 2008. Strategic resources and performance: a meta-analysis. Strategic management journal, 29(11), pp.1141-1154.

Hult, G.T.M., Ketchen, D.J. and Arrfelt, M., 2007. Strategic supply chain management: Improving performance through a culture of competitiveness and knowledge development. Strategic management journal, 28(10), pp.1035-1052.

Zott, C. and Amit, R., 2008. The fit between product market strategy and business model: implications for firm performance. Strategic management journal, 29(1), pp.1-26.

Zhou, K.Z. and Wu, F., 2010. Technological capability, strategic flexibility, and product innovation. Strategic Management Journal, 31(5), pp.547-561.

Lamberti, L. and Noci, G., 2012. The relationship between CSR and corporate strategy in medium-sized companies: evidence from Italy. Business Ethics: A European Review, 21(4), pp.402-416.

Zhao, E.Y., Fisher, G., Lounsbury, M. and Miller, D., 2017. Optimal distinctiveness: Broadening the interface between institutional theory and strategic management. Strategic Management Journal, 38(1), pp.93-113.

Durand, R., Grant, R.M. and Madsen, T.L., 2017. The expanding domain of strategic management research and the quest for integration. Strategic Management Journal, 38(1), pp.4-16.

Wasley, C.E. and Wu, J.S., 2006. Why do managers voluntarily issue cash flow forecasts?. Journal of Accounting Research, 44(2), pp.389-429.

The Alibaba Group (2019) Alibaba Group Announces September Quarter 2019 Results. Available at: https://www.alibabagroup.com/en/news/press_pdf/p 191101.pdf

Taobao (2020) Taobao Live Accelerating Digitization of China's Retail Sector. Available at: https://www.alibabagroup.com/en/news/press_pdf/p 200330.pdf

Habibi Z, Habibi H, Mohammadi MA. The Potential Impact of COVID-19 on the Chinese GDP, Trade, and Economy. *Economies*. 2022; 10(4):73. https://doi.org/10.3390/economies1004007

Ding, W., Levine, R., Lin, C. and Xie, W., 2020. Corporate immunity to the COVID-19 pandemic (No. w27055). National Bureau of Economic Research.

The Alibaba Group (2020) Alibaba Group Announces December Quarter 2019 Results.

Godfrey, P.C., Merrill, C.B. and Hansen, J.M., 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. Strategic management journal, 30(4), pp.425-445.

Abdelrhim, M., & Elsayed, A. (2020). The Effect of COVID-19 Spread on the e-commerce market: The case of the 5 largest e-commerce companies in the world. *Available at SSRN 3621166*.

Susmitha, M. K. (2021). Impact of COVID-19 on E-Commerce. *Journal of Interdisciplinary Cycle Research*, *12*(9), 1161-1165.

Mattke, J. (2022). *E-Commerce in the Age of Blockchain and Digital Advertising* (Doctoral dissertation, Otto-Friedrich-Universität Bamberg, Fakultät Wirtschaftsinformatik und Angewandte Informatik).

Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak. *Journal of Business research*, *116*, 209-213.

Rose, A. (2021). COVID-19 economic impacts in perspective: A comparison to recent US disasters. International Journal of Disaster Risk Reduction, 60, 102317.

Bhatti, A., Akram, H., Basit, H. M., Khan, A. U., Raza, S. M., & Naqvi, M. B. (2020). E-commerce trends during COVID-19 Pandemic. *International Journal of Future Generation Communication and Networking*, *13*(2), 1449-1452.

Galhotra, B., & Dewan, A. (2020, October). Impact of COVID-19 on digital platforms and change in E-commerce shopping trends. In *2020 Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC)* (pp. 861-866). IEEE.

Johnston, L. A. (2021). World trade, e-commerce, and COVID-19. *China Review*, *21*(2), 65-86.

https://www.statista.com/topics/6139/Covid-19-impact-on-the-global-economy/#topicOverview

https://www.bigcommerce.com/articles/ecommerce/

https://www.unicef.org/bangladesh/en/reports/reporting-Covid-19

https://www.unicef.org/bangladesh/media/3426/file/M_guideline_covid_19_Eng.pdf

http://newvision-bd.com/wp-content/uploads/2020/05/Impact-of-COVID-19-on-E-commerce-Industry-of-Bangladesh.pdf

https://www.statista.com/statistics/269329/penetration-rate-of-the-internet-by-region/

https://www.ibef.org/industry/ecommerce

https://globaljournals.org/GJMBR_Volume21/3-Is-COVID-19-a-Blessing-forEcommerce.pdf

https://www.statista.com/topics/6139/Covid-19-impact-on-the-global economy/#topicOverview

https://www.alibabagroup.com/en/news/press_pdf/p

https://www.statista.com/topics/6139/Covid-19-impact-on-the-globaleconomy/#topicOverview