

Opportunities and Barriers to E-Commerce Adoption for Women in Bangladesh: Findings from Covid-19 Shock

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***Abstract:** This study investigates the Bangladeshi women's opportunities when operating e-commerce from a COVID-19 shock viewpoint. There was a time when women's work was not given priority. Women were considered to be less educated, get married early and handle all the work in the husband's family throughout their life. All those women had a hard life. Women were deprived of education, science, research, business and technology. But now, times have changed a lot. Women are fighting for equal rights. Proper use of technology at home can make them financially sustainable. The role of e-commerce is immense in making women financially independent or self-reliant, especially during the outbreak of COVID-19. And by doing this e-commerce business, even a woman from house to house has become successful. Women can't go out whenever they want; they have to take care of the housework. But e-commerce has also made it easier for women to do business. Today, women are able to do business even after taking care of the family. However, women have to think about skills and practices, knowledge of technology, training, market demand, and their own interests. The government of the People's Republic of Bangladesh may find the policy recommendation helpful in overcoming challenges and boosting the e-commerce industry's profitability.*

Keywords: E-commerce, Women e-commerce entrepreneurship, Women empowerment, Financially independent, COVID-19.

1. Introduction

Women's empowerment is an unavoidable aspect of any economic development discussion around the world. E-commerce is becoming a valuable instrument for this empowerment (Development, 2018). The world as whole, as well as Bangladesh, is experiencing a

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remarkable evolution in e-commerce. Women have played an important role in these transformations, and this role has led to empowerment (Sultana & Akter, 2021).

Previously, it was assumed that the e-commerce sector was in its early stages of development, with its impact on economic growth predicted to rise in Bangladesh (Jannat, 2019). But the situation has completely changed after the outbreak of the COVID-19 pandemic. The outbreak caused many job holders, including women, to lose their jobs, so many turned to Facebook and other platforms to sell their own items or start businesses. In order for Bangladesh's e-commerce industry to grow throughout the crisis, tens of thousands of women contributed in this way (Bdnews24, 2021). During the COVID-19 pandemic, there was a rise in e-commerce. Jaim (2021) identified that, because of the work flexibility, a significant number of women have recently entered online-based entrepreneurial sectors. In the same way that women found a means to make a living at home during the pandemic, many men are assisting their wives, daughters, or sisters in online enterprises in addition to their work. In the country's socioeconomic situation, a woman can not only find job but also become an entrepreneur and generate employment for others. Women are now moving in that direction. Clothing, sari-jewelry, food, home decoration products, baby food, and cosmetics are all available for purchase and sale on the internet today (Etee, 2020). And the participation of women entrepreneurs in this business known as e-commerce is increasing day by day.

In times of pandemic, women have stepped forward to lead their families. To fulfill the family's needs, a lady who had never considered becoming an entrepreneur has taken that step. A woman begins her business by focusing on her strengths and it is still going strong (Alam & Rahman, 2022). Since women can now do business at home, it has become easier for them. As a result, female entrepreneurs have a stronger presence online. According to the latest figures from Venture Capital Research Database Pitchbook (2019), only 2% of women in the world have business capital. While statistics throughout the world reveal that two out of every 100 people become entrepreneurs, the picture of Bangladesh gives promise because women account for almost 60% of all entrepreneurs in the country. After four months of COVID-19, the number of women and e-commerce forum (WE), a Facebook-based women's e-commerce platform, members expanded from 30000 to 300,000 (Bdnews24, 2021).

Women's entry into the e-commerce business in our country is full of challenges and opportunities. When it comes to becoming financially independent or self-sufficient, women face a number of challenges. Balancing household and job duties can be difficult, and this may lead to women opting out of entry into e-commerce. The patriarchal society and its viewpoints, which are accustomed to seeing women in a certain role, are the biggest obstacles for women entrepreneurs in the country. Women, with the exception of that, begin searching for flaws (Afroze et al., 2014). Women, of course, have brought

significant change to that place. Besides, the allegations leveled against a few e-commerce companies have thrown the entire sector into a crisis of confidence. Because of this, consumers are losing faith in the e-commerce sector (Chowdhury et al., 2021). Although there are some problems and challenges, in a country like ours, there is a lot of potential in the e-commerce sector. Moreover, during the pandemic, the habit of shopping online was created. In the future, people will buy most of their essential products from e-commerce companies. This will further increase the scope of e-commerce (Bukharbayeva et al., 2021).

2. Literature Review

2.1 Concept of Women E-commerce Entrepreneur in Bangladesh

E-commerce has become an integral aspect of 21st-century customers' daily lives. E-commerce (Electronic Commerce) is the act of maintaining relationships with customers and executing business transactions over the computer network, mostly the internet, which may involve the exchanging, buying, and selling of products, services, and information as well as payments and data transmission (Zwass, 2019). E-commerce is now also a buzzword in Bangladesh, like in other countries in the world. In Bangladesh, however, women clearly lead this industry. According to Goswami and Dutta (2016), the term "women e-commerce entrepreneurs" refers to women, individually or as a group, who start, plan, and operate a business using an online platform such as social media or a personal website. During the digital transformation of Bangladesh, women's contributions to this industry are remarkable, and their participation as digital entrepreneurs is truly motivating (Sultana & Akter, 2021). It's common to consider women's entrepreneurship as an effective tool for economic development and empowerment. E-commerce makes it easier for women to start their own businesses and helps them establish themselves as entrepreneurs. It's believed that stereotyped female characteristics play a significant role in women's success in the e-commerce world. In addition, it is noticeable that women are more attracted to e-commerce since it is convenient and does not require a significant investment or a physical location (Geetha & Barani, 2012). Hossain (2018) stated that honesty and patience are essential for e-commerce. Men, on the other hand, can be more impatient than women at times. E-commerce has given women the opportunity to earn money in addition to their jobs as homemakers, and it has become a platform for women's empowerment.

2.2 E-commerce Creates Opportunity during Pandemic

The financial consequences of COVID-19 are still being observed, but this circumstance has the potential to turn the doors for those women who have lost their careers. In these risky times, online-based businesses or e-commerce appeared to be a feasible source of

income. Women, in particular, saw this as an opportunity to begin new businesses or expand current ones (Haque, 2021). The opportunities provided by the e-commerce marketplace have helped women deal with the economic and social obstacles of the COVID-19 pandemic in the USA, according to the report “Equitable Entrepreneurship: Empowering Women through E-commerce”, which was compiled by eBay. 84 percent of eBay-enabled small businesses indicated eBay is critical to keeping their firm operating and engaged to customers during the COVID-19 pandemic, according to this report (Chowdhury et al., 2021; Chowdhury et al., 2019; Iqbal et al., 2021; Iqbal et al., 2020; Kader et al., 2021; Mia et al., 2022; Mishu et al., 2019; Mamun et al., 2013; Rahman et al., 2021).

Furthermore, 82 percent of women who were new to eBay or boosted their sales as a result of the pandemic claimed they did so because of a job loss, income drop, illness, childcare loss, or some other hardship. Moreover, the report indicates that 69% of women sellers said that the flexibility of working from home, income for their household or business, and being their own boss are the major benefits or opportunities created by the eBay e-commerce platform during the pandemic (eBay, 2021). Many Bangladeshi women who lost their jobs as a result of the COVID-19 outbreak are launching their own businesses on the online platform. This is, however, not a simple process in a conservative community (Welle, 2020). But, women grab the opportunities provided by online platforms and have switched to online-based businesses. Women and E-commerce Forum (WE), an online platform for female e-commerce entrepreneurs, is now one of the most trusted platforms for small female entrepreneurs in the country's 64 districts. The number of entrepreneurs working on domestic products on this platform has crossed 12 lakh during the pandemic (Star, 2022). Women's participation in e-commerce is growing every day since it allows them to overcome poverty, minimize inequities, generate innovative ideas, and work from home.

2.3 Women in the E-commerce Sector: Barriers and Challenges

In our country, women's entrance into e-commerce entrepreneurship is a blend of problems and prospects. Women suffer several hurdles when they effort to become self-reliant or financially stable. The truth is that women in Bangladesh are lagging in socioeconomic growth, which places them in a disadvantageous position because, compared to men, they have limited access to resources, including money, productive assets, services, and possibilities (Jahan, 2021). There are few women e-commerce entrepreneurs who become successful in the industry because of their unique business idea and creativity, but others have to face some issues and challenges in that industry. Jethwa and Mishra (2016) provide a list of challenges that every woman in that industry has to face:

2.3.1 The Problem in Finding Suitable Market

E-commerce is all about finding a suitable niche for target people who transact over the internet for the desired product. But finding a suitable niche is almost an obstacle that every e-commerce entrepreneur needs to face study (Rakhimova et al., 2021; Shil et al., 2020; Vladimirovna et al., 2021).

2.3.2 The Problem in Retaining Customers

Customer acquisition and retention is another vital challenge that every e-commerce entrepreneur needs to face. To get customer attention, various marketing and promotional activities need to undertake. But this increases the cost and sometimes customer conversion rate through advertisements is minimum. Besides faster delivery service, after-sale service, etc., services are required to retain the customer. This also increases the cost (Cook, 2010).

2.3.3 Lack of Government Support

The e-commerce industry can become disorganized when there is insufficient government involvement, a lack of specialized legal structure, or an inadequate training program. As a result of not having clear instructions, new start-up entrepreneurs experience some demotivation (Tribune, 2020).

2.3.4 Lack of Trust

Trust is a valuable asset for every form of business so does e-commerce. Reliable logistics and supply chain, loyal customers are important aspects of an e-commerce business. Failure in this specific part means harmful damage to the future reputation of the business.

2.3.5 Lack of Education and Technical Knowledge

Uneducated women who run e-commerce enterprises, particularly those in rural areas, typically lack access to technical and financial assistance that may help them expand from household to commercial scale. Besides, the equitable participation of women in programs and projects is hampered by cultural and societal constraints.

2.3.6 The Problem of Sufficient Funds

Raising sufficient funds for businesses is another crucial factor for e-commerce entrepreneurs. They face a lot of trouble in raising sufficient funds for the business. Arranging funds regularly is a big challenge for women entrepreneurs.

2.3.7 Restrictions

Women are given sole responsibility for reproduction, which comes with heavy workloads, unpaid employment, and limited decision-making. Most of them remained in disadvantageous situations due to these restricted activities. Besides these, they also have to balance business and family life to run the business smoothly.

2.3.8 Cyber Security

One of the important hindrances in the development of e-commerce is cyber fraud and identity theft. Many women e-commerce entrepreneurs face these serious problems due to poor security. As a result, sometimes, they lose their Facebook pages and websites on which they run their businesses (Bartczak, 2021).

2.3.9 Good and Effective Customer Service

Song et al. (2021) stated that maintaining a good reputation with customers through constant good services is another significant obstacle for e-commerce entrepreneurs. Sometimes the satisfactory level of delivery and order fulfillment is not met by the entrepreneur. Customer satisfaction is the top concern in this industry, and all entrepreneurs must make sure of it.

3. Objectives

The major objective of this paper is to discover the opportunities and barriers that the women of Bangladesh face in running e-commerce from the perspective of COVID-19 shock. The specific objectives are to discover the minimum required investment to start e-commerce in Bangladesh, payment methods, delivery time, appropriate e-commerce sites, online fraud experience, return policy, etc. The consequences will have an impact on the economy of Bangladesh by reducing the barriers that women e-commerce entrepreneurs face in Bangladesh. The paper identifies the challenges and recommendations regarding women e-commerce entrepreneurs in Bangladesh to provide them with a shining future.

4. Methodology

This study used both quantitative and qualitative methods. The study's demographic is made up of female e-commerce entrepreneurs that run their firms through various online platforms. The non-probabilistic sampling approach, with a sample size of 300 users, was used to obtain the sample size from this population. Rather than randomly selecting respondents who are not the intended respondents, this non-probabilistic sampling technique allows for the identification of actual female e-commerce entrepreneurs. Hox and

Boejje (2005) stated that primary and secondary are the two ways of data collection. Therefore, this study is created using both primary and secondary data. A questionnaire has been set up to collect the primary data and uses the descriptive statistics method to analyze the data. This method is applied because it provides a meaningful and relevant description or summary of the data. A desk analysis technique, which means collecting data from existing sources, has been used for collecting secondary data. Various websites, books, organizations, papers, and women's e-commerce experts are available as secondary data sources.

5. Result and Discussion

5.1 Demographic Analysis

The Table in the below (1) reveals that the majority of the respondents were between the ages of 18–30 (63.3%), where 23.7% were the ages of 31–50, 11.3% were the ages of below 18, and only 1.7% were from the ages above 50. The educational level of the respondents is also represented in the Table. According to the table, 57.3% of the respondents were from the university level, 37.7% were from the college level, and the rest 5% were from the high school level. It has been found that in the case of the profession, 46.7% of respondents were housewives, 24.7% were students, and 24% were self-employed. Job holders were only 4.6%.

Table 1: Demographic Information of the Respondents

CHARACTERISTICS	PERCENTAGE
AGE OF THE RESPONDENTS	
Below 18	11.3%
18-30	63.3%
31-50	23.7%
Above 50	1.7%
EDUCATION LEVEL OF THE RESPONDENTS	
High School	5%
College	37.7%
University	57.3%

PROFESSION OF THE RESPONDENTS	
Student	24.7%
Housewife	46.7%
Self-Employed	24%
Job	4.6%
MARITAL STATUS OF THE RESPONDENTS	
Single	30.8%
Married	55.3%
Widowed	11.2%
Divorced	2.7%

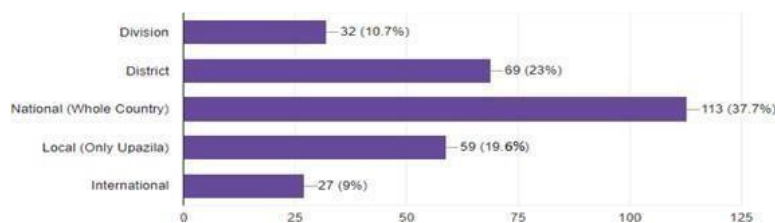
Source: Authors' Compilation

This table also represents the marital status of the respondent. According to the survey, the table indicates that 55.3% of respondents were married, whereas 30.8% were single, 11.2% were widowed, and 2.7% were divorced.

5.2 Business Coverage Area

Figure 1 represents that 37.7% of the respondent's businesses cover the national area. That means they sell their product all over the country because e-commerce provides them with the opportunity to deliver their product to a huge number of customers. The survey shows that 23% of the respondents cover their own districts. 19.6% of the respondents' businesses are based in local areas. That means their business operation is limited to upazila only. 10.7% of the respondent delivers their product at the division level. Only 9% of respondents in the survey also cross national borders, they deliver their product internationally.

Figure 1: Business Coverage Area



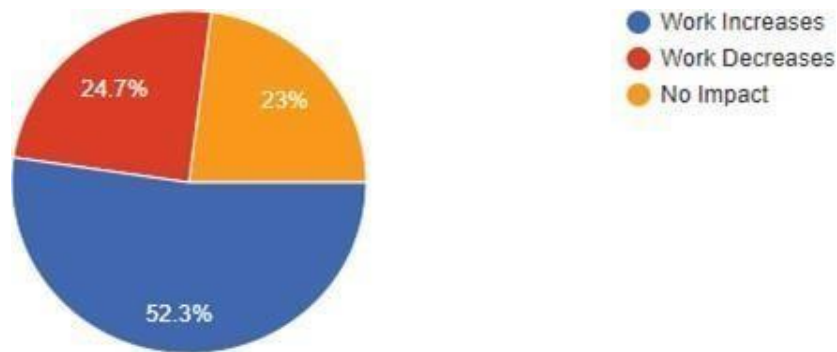
Source: Authors' Compilation

According to the survey findings, the majority of respondents deliver their products in the national area or the entire country. In e-commerce, customers come from all over the country as well as outside the national borders. So, depending on only national customers sometimes causes financial difficulties for entrepreneurs.

5.3 Impact of COVID-19 on Work

During the pandemic, it is required to stay at home. As a result, people have become dependent on online transactions. So, the number of orders has increased, which creates extra work for women e-commerce entrepreneurs. According to the data of the survey, Figure 2 shows that 52.3% of respondents' work has increased during this pandemic. More than half of the respondents admit that COVID-19 brings opportunities for them, which causes an increase in their work. On the other hand, it is found in the survey that 24.7% of respondents' work has decreased because during this pandemic the competition has increased. Besides, 23% of respondents stated that there was no impact of COVID-19 on their work.

Figure 2: Impact of COVID-19 on Work

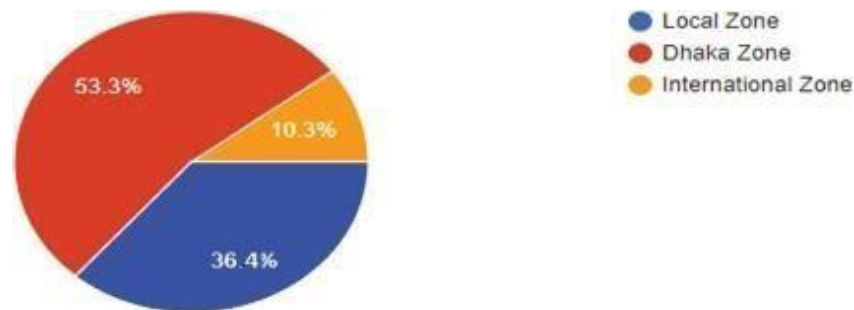


Source: Authors' Compilation

Basically, work has been increased due to the changing shopping patterns of customers. To avoid physical interaction, customers prefer to shop online during the pandemic. This shift in buying patterns is expected to have a long-term impact on e-commerce transactions, from luxury items to daily commodities, which will literally increase the work for women e-commerce entrepreneurs as they will get more online orders even after the post-pandemic period. Some of the reasons for work decreases and no impact during the pandemic include a lack of creativity in products and services, insufficient promotional activities, digital literacy and level of education of urban customers, and forced engagement in e-commerce during the pandemic, which ultimately leads to competition, and uncertain stock demand due to fear of supply shortage.

5.4 Sources of Raw Materials

Raw materials can be collected from different zones according to demand, which is based on price, quality, transportation cost, delivery time, supplier capability, and other factors. According to Figure 3, it is found that 36.4% of the respondents collect their raw materials from their local zone. That means they procured raw materials from the upazila, district, and other neighboring locations. On the other hand, 53.3% of the respondents collect their raw materials from the capital, Dhaka. Collection from the local one reduces the transportation cost and also reduces risk, but when raw material is collected from the Dhaka zone, it can be bought at a lower price. It is also necessary to mention that 10.3% of the respondents collect their raw materials from the international zone, mainly from neighboring countries like India.



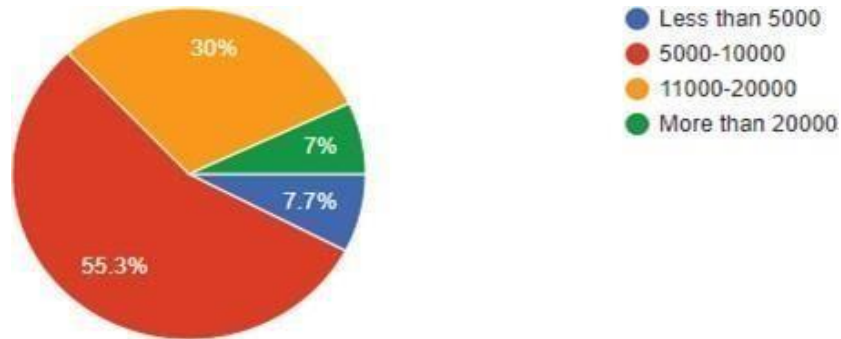
Source: Authors' Compilation

Because most of the entrepreneurs collect their raw materials from the capital, Dhaka, they have to pay extra transportation costs, extra packaging and travel costs, and because of this, inventory management sometimes becomes difficult for them.

5.5 Initial Capital

E-commerce provides the opportunity to start a business with little capital, which creates an advantage over traditional businesses. Many women are taking this opportunity to become independent with their small capital. According to Figure 4, 55.3% of the respondent's initial capital was 5000–10,000. It has also been found that many women start their businesses with very little money. 7.7% of the respondents started their business with an initial capital of less than 5,000. 30% of respondents had an initial capital of between 11,000 and 20,000. The survey shows that a small number of respondents started their business with more than 20,000 in money, and their percentage is only 7%.

Figure 4: Initial Capital

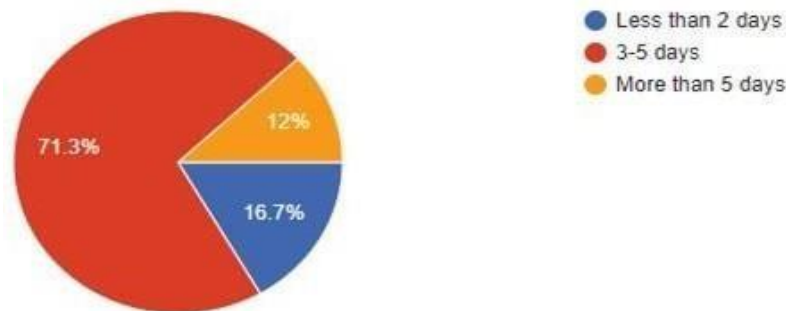


Source: Authors' Compilation

5.6 Delivery Time

According to Figure 5, it has been seen that 71.3% of respondents take 3-5 days to deliver the product to the desired destination. 16.7% take less than 2 days to deliver the products. On the other hand, 12% said that it takes more than 5 days to deliver the product. During the pandemic, they tried to ensure faster and better delivery service in compliance with hygiene rules.

Figure 5: Delivery Time



Source: Authors' Compilation

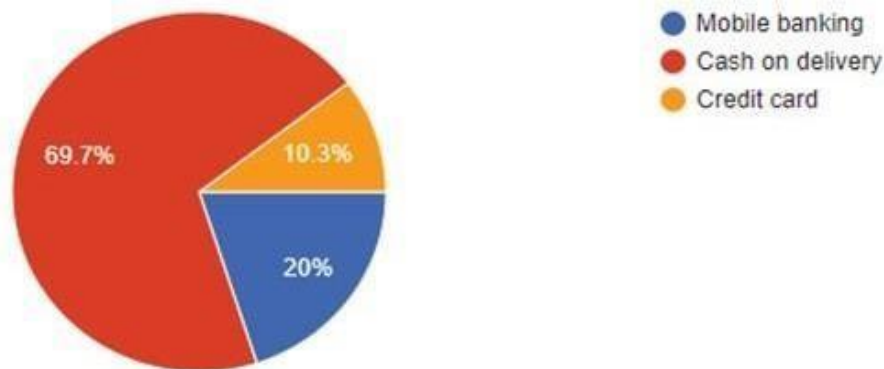
Most of the respondents said that they deliver their products within 3 to 5 days. But sometimes, an emergency occurs, and the customer needs the product immediately. Then it becomes difficult to collect the raw material and deal with the delivery company. Bangladesh currently lacks a well-established delivery system despite possessing a well-established transportation network, including highways, bridges, ports, railroads,

and river ways. Although there are a few traditional courier services that offer same-day or speedy delivery in the country, these services are mostly only available in Dhaka and a few other locations. There's still a long way to go in terms of developing a scalable and cost-effective digitally enabled workforce and courier service that can handle last-mile delivery. Besides, many courier services are open overnight without heeding any rules and regulations. Many courier entrepreneurs do not even know that it is mandatory to get a license from the licensing authority of the Ministry of Posts and Telecommunications to operate a courier service company. Package quality is an ongoing burden in delivery. The risk of the items being damaged rises as courier services attempt to save money by using less expensive packing.

5.7 Payment Methods

Figure 6 discloses that most of the respondents (69.7%, almost 70%) prefer cash on delivery. They choose this because it helps to show reliability to the customer, ensuring that their order will be fulfilled. It is also seen that 20% prefer mobile banking (Bkash, Rocket, Nagad, Upai) for payment. Besides, only 10.3% prefer credit cards as a method of payment.

Figure 6: Payment Methods



Source: Authors' Compilation

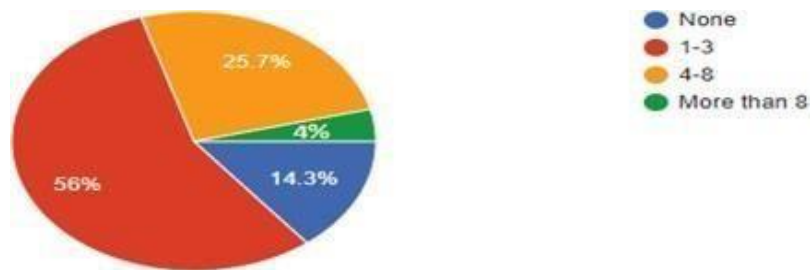
However, the number of transactions available for sending and transferring money is limited by these payment methods. Sometimes, the payment system doesn't work due to network problems or IT-related problems. So the servers go down. The most important issue arising from this is that there is no option to recover the lost money which is sent in incorrect numbers. Moreover, despite the fact that mobile financial services (MFS) have seen significant growth in Bangladesh, it is becoming extremely difficult to make

immediate refunds due to issues with the interoperability of various payment methods and services.

5.8 Average Number of Delivery Returns per Week

In online businesses, there is a trend for customers to return the product. Figure 7 shows that 56% of the respondents get an average of 1 to 3 deliveries back per week, and 25.7% of the respondents get an average of 4 to 8 deliveries back per week. It mostly occurs because customers can take advantage of Cash on Delivery (COD), and it causes financial loss for the sellers. 14.3% of the respondents don't get their delivery back, but 4% of the respondents get more than 8 deliveries back per week.

Figure 7: Average Number of Delivery Returns per Week



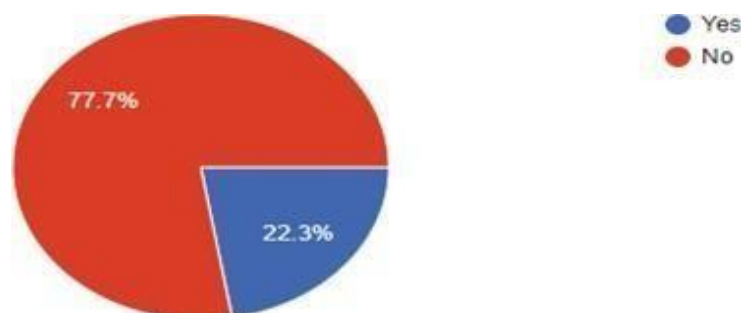
Source: Authors' Compilation

Sometimes customers become reluctant to make payment, and there is a tendency to return the product after receiving it from the courier/delivery man. Most of these situations occur with cash-on delivery systems.

5.9 E-commerce Site

An e-commerce site provides the opportunity to buy and sell different products and services over the internet. There are different e-commerce sites in Bangladesh, but according to Figure 8, it is found that only 22.3% of the respondents have an e-commerce site. The majority (77.7%) of the respondents don't have any e-commerce sites. An e-commerce site increases sales and enhances online transactions and information transferred through the internet.

Figure 8: E-commerce Site

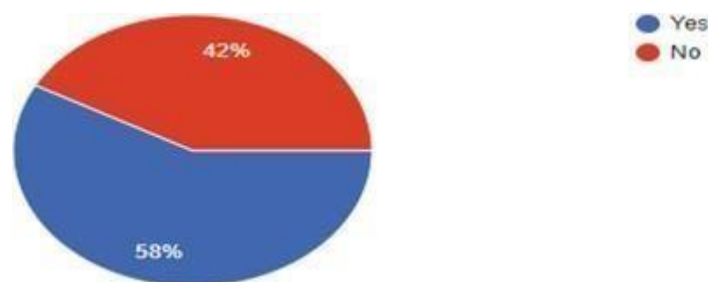


Source: Authors' Compilation

5.10 Victims of Online Fraud

Not only buyers but also sellers can be victims of fraud. Figure 9 shows that about 58% of the respondents have become victims of online fraud while operating their online business, while 42% of the respondents don't have this experience.

Figure 9: Victims of Online Fraud



Source: Authors' Compilation

It is seen that a buyer is not paying the price by purchasing the product, and they are visiting the online world with their fake accounts, which are difficult to track.

6. Policy Recommendations

In e-commerce, there are no definite boundaries or places like in conventional business. Anyone using the internet can be involved in this business from anywhere in the world. An

e-commerce marketplace is defined as a place where almost anyone with internet access can buy and sell things and place orders. So it becomes easier for women to operate their businesses online and become financially independent. But they also face different problems in doing business in the online world. The Government of the People's Republic of Bangladesh may find the following policy recommendations useful in lessening their difficulties and boosting the profitability of this industry. The policies are;

- Women in e-commerce should be taught how to create innovative and high-quality products so that they can attract more foreign buyers and make their appearance in international markets. Besides, a minimum knowledge of export policies, international payment methods, and delivery is required for them.
- Because the impact of COVID-19 is still ongoing, sufficient promotional activities are required to get more orders from buyers. Women in e-commerce should use social media platforms for "targeted advertising." Through targeted advertising, businesses can show advertisements to individual customers depending on their traits, interests, and purchasing patterns. In addition, because digital literacy is more important than ever before, a cooperative and collaborative program should be introduced to literate urban customers digitally.
- Women entrepreneurs need to collect their raw materials from the local zone to avoid extra transportation costs, extra packaging, and travel costs. Besides, sourcing locally allows more customization, offers better prices and helps to market faster.
- It is high time to develop a scalable and cost-effective digitally enabled workforce and courier service that can handle last-mile delivery with safe and quick service. Express delivery could be a possible solution. The Ministry of Posts and Telecommunications should employ strict rules and regulations regarding courier licenses. Besides, cost-effective quality packaging should be introduced. Proper staff training, machinery maintenance, and multi-function packaging could be helpful for achieving cost-effective quality packaging.
- It is high time to introduce interoperability among mobile financial services (MFS). Financial interoperability enables direct transactions between clients of two different MFS providers. In addition, a policy should be implemented that allows women e-commerce entrepreneurs to conduct an unlimited or maximum number of transactions in comparison to other account holders.
- An appropriate "return policy/replacement policy" should be developed where all the terms and conditions for returning the product will be included in the policy.
- In order to trade online, the registered account has to be made compulsory and if there is any allegation of fraud, it has to be brought under the law and exemplary punishment has to be provided.
- When a buyer orders a product with a fake ID, it can be sued under the Digital Security Act.

7. Conclusion

E-commerce is expanding very fast in our country. It now forms a crucial aspect of our lives. By working in this industry, women are now able to end poverty and lessen inequality. The patriarchal society and its attitudes are major impediments for women entrepreneurs in the country, where women are expected to play a specific role and, with the exception of this, they are facing criticism. Of course, women have brought about a lot of changes there as well. Because in the present era, a family is no longer maintained solely by the income of one person. As a result, women who are financially successful are increasingly seen favorably. The country's economy 30 years ago was different from the one in 2022. Women have demonstrated their ability to work in various sectors, in addition to their responsibilities to their families. Recent COVID-19 outbreaks have resulted in negative outcomes for women, such as job loss, a reduction in income, as well as intensifying the existing gender inequality. E-commerce seems to be a blessing in disguise when women are frustrated and impacted by the economic collapse that brought the pandemic. The outcome of this study helps to identify the possible opportunities and barriers that may be encountered by women when operating e-commerce businesses. Through this study, women learn how much money they should invest in their new businesses and how to attract more customers by offering better customization, quicker delivery, and high-quality packaging. In addition, they might find this helpful in preventing online fraud. Economic independence is a requirement for women's empowerment, and e-commerce facilitates this. Presently, women entrepreneurs are in charge of 80% of the nation's e-commerce businesses, and they work persistently every day to alter societal norms and laws. As a result, the majority succeed and achieve financial independence. Women can better serve their families and society, both morally and economically, if barriers are removed and they are given the favorable working conditions they prefer.

References

1. Afroze, T., Alam, M. K., Akther, E. & Jui, N. S. (2014). Women entrepreneurs in Bangladesh-Challenges and determining factors. *Journal of Business and Technology*. 9(2), 27-41.
2. Alam, S. & Rahman, M. (2022). COVID-19 impact on Facebook-based social commerce in Bangladesh. *International Journal of Electrical & Computer Engineering*. 12(2), 1636-1649.
3. Bartczak, K. (2021). Cybersecurity as the Main Challenge to the Effective Use of Digital Technology Platforms in E-Commerce. *European Research Studies*. 24(2B), 240-256.
4. Bdnews24. (2021). A pandemic boost for women entrepreneurs in Bangladesh's e-commerce.

5. Bukharbayeva, A. Zh., Nauryzbayev, A. Zh., Oralbayeva, A. K., Smagulova, Z. B., Mashayeva, A., & Zayed, N. M. (2021). Trends and assessment of the foreign economic activities: A case study of the Eurasian economic union (EAEU). *Academy of Strategic Management Journal*. 20(4), 1-10.
6. Chowdhury, S. A, Islam, S., Haque, S., Bappi, A. U. & Mowla, M. M. (2021). Fraudulence Issues in E-commerce and its Remedies: Cases during COVID-19 Pandemic in Bangladesh. *Australian Journal of Business and Management Research (AJMBR)*. 6(1), 120-130.
7. Cook, S. (2010). Customer care excellence: How to create an effective customer focus. Kogan page publishers. ISBN-13: 9780749450663
8. Chowdhury, F. N., Mustafa, J., Islam, K. M. A., Hasan, K. B. M. R., Zayed, N. M. & Raisa, T. S. (2021). Social Business in an Emerging Economy: An Empirical Study in Bangladesh. *Journal of Asian Finance, Economics and Business*. 8(3), 0931–0941.
9. Chowdhury, F. N., Hasan, K. B. M. R., Kulsum, U., Akter, S. & Zayed, N. M. (2019). Strategic Balancing of Pre-Investment Practice and Post-Investment Effects of Venture Capitalists (VCs). *Academy of Strategic Management Journal (ASMJ)*. 18(5), 1-6.
10. Development, U. N. C. T. (2018). E-commerce and women empowerment.
11. EBay. (2021). Equitable Entrepreneurship: Empowering Women through E-commerce.
12. Etee, N. J. (2020). Women in F-commerce: A New Platform for Economic Empowerment during the COVID-19 Pandemic. *International Journal of Research and Analytical Reviews (IJRAR)*. 7(4), 741-749.
13. Geetha S. N. & Barani, G. (2012). Empowering Women through Entrepreneurship: A study in Tamil Nadu. *India International Journal of Trade, Economics and Finance*. 3(2), 143-147.
14. Goswami, A. & Dutta, S. (2016). E-commerce adoption by women entrepreneurs in India: an application of the UTAUT model. *Business and Economic Research*. 6(2), 440-454.
15. Haque, H. (2021). Women’s Empowerment through F-Commerce during the COVID-19 Pandemic: A Qualitative Study in Bangladesh. *Global Journal of Human- Social Science: Sociology & Culture*. 21(4), 25-35.
16. Hossain, T. (2018). Empowering Women through E-Business: A Study on Women Entrepreneurs in Dhaka City. *Asian Business Review*. 8(3), 153-160.
17. Hox, J. J. & Boeije, H. R. (2005). Data collection, primary versus secondary.
18. Iqbal, M. M., Islam, K. M. A., Zayed, N. M., Beg, T. H., & Shahi, S. K. (2021). Impact of Artificial Intelligence and Digital Economy on Industrial Revolution 4: Evidence from Bangladesh. *American Finance & Banking Review*. 6(1), 42-55.
19. Iqbal, M. M., Zayed, N. M. & Shahi, S. K. (2020). An Analysis of the Effects of Corona Virus (COVID-19) on the Demand for & Supply of Goods/Services in International Economy, 2020. *Shodh Sarita*. 7(28), 61-66.
20. Jahan, N. (2021). F-commerce boom amid the pandemic: How women are taking the lead. The Daily Star.

21. Jaim, J. (2021). Exist or exit? Women business-owners in Bangladesh during COVID-19. *Gender. Work & Organization*. 28(S1), 209-226.
22. Jannat, M. (2019). Empowering Women Through E-commerce in Bangladesh.
23. Jethwa, M. & Mishra, C. (2016). A Study on Status of Women Entrepreneur in E-commerce Environment in India. *Review of Research Journal*. 5(8), 1-7.
24. Kader, S. A., Rahman, A.A.A., Meero, A., Islam, K.M.A, Zayed, N. M. & Hasan, K.B.M.R. (2021). COVID-19: After Effects of Corona Virus and Its Impact on Global Economy. *Academy of Strategic Management Journal*. 20(SI1), 1-9.
25. Mia, M.M.; Rizwan, S.; Zayed, N. M.; Nitsenko, V.; Miroshnyk, O.; Kryshstal, H.; Ostapenko, R. (2022). The Impact of Green Entrepreneurship on Social Change and Factors Influencing AMO Theory. *Systems*, 10(5), 132.
26. Mishu, A. A., Afroz, N., Chowdhury, S. & Zayed, N. M. (2019). Acceptance of E-banking by the Consumers of Dhaka City, Bangladesh. *International Journal of Family Business & Management*. 3(2), 1-8.
27. Mamun, M. A. A., Zayed, N. M. & Hossain, S. (2013). Using Porter's Diamond to Determine the Condition of ICT in a Developing Country: A Study on Bangladesh. *International Journal of Business & Management Review (IJBMR)*. 1(3),138-150.
28. Pitchbook. (2019). 2019 Annual Global League Tables.
29. Rahman, A.A.A., Darwish, S., Meero, A., Zayed, N. M., Islam, K.M.A, & Raisa, T. S. (2021). Emerging Strategies and Economic Impact of COVID-19: A Case Study of Gulf Cooperation Council Countries (GCC). *Academy of Strategic Management Journal*. 20 (SI1), 1-8.
30. Rakhimova, S., Goncharenko, L., Sybachin, S., Nurgaliyeva, A., Kunanbayeva, K. & Zayed, N. M. (2021). An Empirical Analysis on the Formation of Modern Structure of the National Economy Using Digital Technology. *Academy of Strategic Management Journal*. 20(1), 1-15.
31. Song, Y., Escobar, O., Arzubiaga, U. & De Massis, A. (2021). The digital transformation of a traditional market into an entrepreneurial ecosystem. *Review of Managerial Science*. 16, 65-88.
32. Sultana, F. & Akter, A. (2021). Women E-commerce: Perspective in Bangladesh. *Journal of Management, Economics and Industrial Organization*. 5(3), 1-13.
33. Shil, M., Shahriar, M. S., Sultana, S., Rahman, S. N. & Zayed, N. M. (2020). Introduction to University based Entrepreneurship Ecosystem (U-BEE): A Model Case Study from Bangladesh. *International Journal of Entrepreneurship*. 24(1), 1-9.
34. Star, T. D. (2022). Women take lead in f-commerce.
35. Tribune, D. (2020). The role of e-commerce in empowering women.
36. Vladimirovna, N. E. & Zayed, N. M. (2021). Digital industrialization: entrepreneurial features of advanced nations' innovation policies during industrial revolution 4.0. *Academy of Entrepreneurship Journal*, 27(6), 1- 8.
37. Welle, D. (2020). Bangladesh: Women create online businesses during pandemic.
38. Zwass, V. (2019). E-commerce. *Encyclopedia Britannica*.

Appendix

Questionnaire

Introduction	
<p>This survey is conducted to analyze the opportunities and barriers that the women of Bangladesh face in running e-commerce from the perspective of COVID-19 shock. It will be highly appreciated if you showed your willingness to comply with this survey process. The information that you will provide will be kept confidential and will not be given to anyone or any organization without your permission.</p>	

Demographic Information				
Age Range	<input type="checkbox"/> Below 18	<input type="checkbox"/> 18-30	<input type="checkbox"/> 31-50	<input type="checkbox"/> Above 50
Education Level	<input type="checkbox"/> High School	<input type="checkbox"/> College	<input type="checkbox"/> University	<input type="checkbox"/> Others
Profession	<input type="checkbox"/> Student	<input type="checkbox"/> Housewife	<input type="checkbox"/> Self-Employed	<input type="checkbox"/> Job
Marital Status	<input type="checkbox"/> Single	<input type="checkbox"/> Married	<input type="checkbox"/> Widowed	<input type="checkbox"/> Divorced

Other Information	
<p>1. Your business covers the area;</p> <p style="margin-left: 20px;">a) Division b) District c) National (Whole Country) d) Local (Only Upazila) e) International</p>	<p>6. Which payment method do you use?</p> <p style="margin-left: 20px;">a) Mobile banking b) Cash on delivery c) Credit card</p>
<p>2. What was the impact of COVID-19 on your work?</p> <p style="margin-left: 20px;">a) Work Increases b) Work Decreases c) No Impact</p>	<p>7. What is the weekly average number of delivery returns?</p> <p style="margin-left: 20px;">a) None b) 1-3 c) 4-8 d) More than 8</p>
<p>3. From where do you collect your raw materials?</p> <p style="margin-left: 20px;">a) Local Zone b) Dhaka Zone c) International Zone</p>	<p>8. Do you run any e-commerce sites?</p> <p style="margin-left: 20px;">a) Yes b) No</p>
<p>4. What was your initial capital?</p> <p style="margin-left: 20px;">a) Less than 5000 b) 5000-10000 c) 11000-20000 d) More than 20000</p>	<p>9. Do you face any online fraud?</p> <p style="margin-left: 20px;">a) Yes b) No</p>
<p>5. How much time do you take to deliver your products after getting an order?</p> <p style="margin-left: 20px;">a) Less than 2 days b) 3-5 days c) More than 5 days</p>	