



ISSN: 2617 – 8338 (Online)
: 2617 – 832X (Print)

EBAUB Journal

An Academic Journal of
EXIM Bank Agricultural University Bangladesh

Evaluating Women's Participation in E-commerce and Its Influence on Women Empowerment in Chapainawabganj District

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ARTICLE INFO	ABSTRACT
Received date: July 22, 2022 Accepted date: October 25, 2022	E-commerce is evolving into a crucial tool for women's empowerment in Bangladesh today, and its revolution has greatly increased women's sense of financial independence and creative freedom. The purpose of this study was to investigate the current status, barriers, and attitudes of the respondents regarding women's involvement in e-commerce in Chapainawabganj, a district of Bangladesh. A total of 60 women were chosen as the study's sample via a pre-tested interview schedule using a simple random sampling approach during December 2021 to January 2022. It is evident from the primary data that the majority of the respondents were students living in families of three to six members on average, typically with only one earning member. On average, they earn 22966 BDT (\$250) per month. Most of the respondents owned the businesses and they personally engaged themselves for nearly 3 to 6 hours each day. These ventures mostly sold women's clothing and accessories. Their e-commerce businesses are largely based around social media platforms like Facebook and Instagram. Therefore, these entrepreneurs are exposed to potential virtual threats. However, it is found that cyber security measures to curb these risks are very limited. For financial transaction, cashless methods such as Bkash, Ucash, Nagad etc. are commonly used. Majority of these enterprises initially leveraged on investment with personal asset. Many of these business owners were making their own judgements. The study also finds that 66.7% of the respondents confirmed having their e-commerce platforms as their primary source of income. Women's lower literacy and lack of marketing experience were the most important constraints for e-commerce businesses. Respondents' attitudes toward women's empowerment through e-commerce were largely positive. To help the women's e-commerce sector thrive, the government, non-governmental organizations (NGOs), the financial system, various business and public organizations, and educational institutions must all take action.

Keywords: Attitude, Business sites, E-commerce, Influence, Participation, Women empowerment

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To Cite: Ghosh, M. K., Islam, M. S., Yeasmin, R. A., & Khatun, M. T. (2023). Evaluating women's participation in e-commerce and its influence on women empowerment in Chapainawabganj district. *EBAUB J.*, 5, 55-66.

1. INTRODUCTION

The use of internet resources and technologies to conduct business more effectively and efficiently is referred to as electronic commerce. It's all about making and saving money from online. E-commerce is defined as the use of electronic communications and digital information processing technologies in business transactions to create value among businesses as well as between organizations and individuals. It includes the internet, email, private bulletin board systems, significance networks, intranets, and extranets (Vladimir, 1996). It uses all forms of communication technologies, such as email, television, fax, cell phones, and landlines. Because e-commerce encompasses the entire business cycle, including manufacturing, sourcing, transit, revenues, transactions, fulfillment, restocking, and marketing, it can be effective for any type of corporation. Customer, employee, supplier, and distributor relationships are all crucial. Government agencies, banks, and attorneys are a few examples of the support services involved (Padmannavar, 2011).

With 76% inhabitants residing in rural areas, Bangladesh is a developing nation in south Asia. Its 52% population lives in poverty (Mohiuddin et al., 1998). Women make up almost half of the population in Bangladesh, according to the demographic structure's current data ratio (BBS, 2017). Bangladesh is witnessing an impressive revolution in internet commerce, just like the rest of the world. Women's contributions to these transformations have become ones empowerment. They have been crucial contributors. The sale and promotion of goods and services over the internet is known as electronic commerce, or e-commerce (Reza et al., 2014). Women's empowerment is characterized by their involvement in the workforce, leadership positions in the political and social spheres, and credit access. It is a procedure that gives women access to positions of authority, as well as rights and control over physical resources. It is a method for raising consciousness and ability, which encourages increased involvement in decision-making (Sarker, 2006). In a broad sense, it refers to enabling women to achieve self-sufficiency by allowing them to take advantage of all the freedoms and possibilities that they were previously denied just because of they are women. To put it another way, women's empowerment is nothing more than highlighting, enhancing, and underlining their status within the power structure as well as their freedom to make choices regarding a variety of social and family-related issues. Five factors make up women's empowerment: their sense of worth, their choices, their access to resources, their control over their own lives both inside and outside the home, and their ability to influence social change to create a more equitable social and economic system on a local and global scale (Singla & Syal, 1998).

Women can become more empowered in many different ways in the cutthroat world of today. Women's entrepreneurship is viewed as a powerful instrument for empowering women and advancing economic development (Bisht & Sharma, 1991). Since Bangladesh wanted everyone

to have access to a secure online transaction system in the early 2000s, the country's e-commerce industry has expanded significantly (Sultana & Akter, 2021). There are 2000 e-commerce websites and 100,000 social media e-commerce groups, according to the E-Commerce Association of Bangladesh's e-Cab, 2020 report (Dhaka Tribune, 2020). The majority of women, or almost 300,000 members of Bangladesh's largest software service group, utilize Facebook to run their businesses. These are signs that the independence of Bangladeshi women has a bright future. Women may now provide for their families and fight poverty at the same time (Dhaka Tribune, 2020).

Bangladesh, a third-world nation, has a lot to gain from the participation of women in business. Among the many businesses that women today run on social media are those that sell clothing for the fashion industry, home goods, jewelry, handmade items, clothing, food, and blogging. Today, women operate a wide range of enterprises on social media, including those in fashion, clothing, food, and blogging, among others. Cybercrime and security have recently become significant obstacles for e-business in Bangladesh. Some fake pages use the guise of an e-business platform to defraud customers and perpetrate crimes. A number of suggestions are made in order to intellectually and practically add to the amount of literature already written about Bangladesh (Sultana & Akter, 2021). A few hundred lesser-known internet businesses and web pages can be found in Dhaka and other large cities in addition to well-known online retailers. It's important to note that women make up the majority of internet company owners. Women's entrepreneurship is frequently seen as a practical strategy for empowering women and advancing economic development. Online or e-business facilitates female entrepreneurs. Because e-business is easy and doesn't require a significant amount of cash or physical locations, women seem to be particularly interested in it (Geetha & Barani, 2012). Women support the Bangladeshi economy in a number of ways, according to Roy (2016) and Hossain et al. (2009). For women company owners, especially those operating small e-commerce firms, access to information and communication technologies may open up new communication channels and give current information sources. As a result, support services in areas like training, gender analysis, planning, design, implementation, monitoring, and assessment must take into account equitable access to e-commerce for women entrepreneurs with a focus on the effects on women's lives and situations (UNCTAD, 2018).

The e-commerce revolution has unquestionably given women a great feeling of financial independence and creative joy. They are now actively participating in decision-making and becoming capable leaders. Women are no longer dependent on their family for financial support. Through their work in industries that generate cash, women support both their families and the nation's economy. They are thereby raising their standard of life and, more importantly, motivating more women to work for themselves. However, lack of information, lack of training, lack of entrepreneurial training, family obligations, government taxation policy, a

lack of skilled or trained labor, access to marketing facilities, information, and networks, a lack of access to policymakers, a lack of access to infrastructure, a lack of access to technology, a lack of research and development (R&D) to improve product quality, and a lack of support services are some of the problems. Bangladeshi women entrepreneurs face hurdles as a consequence of traditional practices, socio-cultural norms, a male-dominated society, family responsibilities, Bangladeshi values, and ethics (Bhuiyan et al., 2007).

This study is important to estimate the overall condition of women in Chapainawabganj, who are directly and partially involved with e-commerce. What is the state of women's e-commerce in Chapainawabganj right now? Which issues do they have the most trouble with when it comes to various situations and women's sociodemographic characteristics? This paper's goal was to present the issue of e-commerce empowerment, as well as a description of women-owned e-commerce businesses in Chapainawabganj, Bangladesh, and some of the motivating factors behind them, as well as their characteristics, challenges, and opportunities as they work to achieve economic and personal empowerment through e-commerce activity.

2. MATERIALS AND METHODS

Both primary and secondary data were used extensively in this study. Researcher gathered all of the main data by sending out a questionnaire to individuals in the chosen area. Interviews, phone calls, and interactions with various social media platforms were also used to gather information about e-commerce and its effects on women's empowerment.

2.1. Location of the Study

The study was done in Chapainawabganj district which are in the part of North Bangladesh. Chapainawabganj district (Rajshahi division) comprise an area of 1702.56 sq km. It is the country's western most district. The Sadar Upazila consists of 1 municipality, 15 wards, 82 mahallas, 14 unions, 178 populated mauzas and 342 villages. The data were collected from different women by the areas of Chapainawabganj sadar.

2.2. Population and Sample

Women who work in E-commerce and live in Chapainawabganj sadar or nearby Chapainawabganj district were purposefully chosen as the study's target demographic. The samples of the respondents were randomly selected from different areas of Chapainawabganj district. Where all samples were combined to form a population. The study was focus on approximately 60 entrepreneurs who own an internet or e-commerce business and live in Chapainawabganj district.

2.3. Data Collection Procedure

This is a quantitative study in which data were gathered to determine the current state regarding women's e-commerce. The study used a basic random sample strategy to obtain data from 60 women in a field survey. The information was gathered through the use of a pre-designed, structured questionnaire. For data collection, a well-structured

questionnaire was created. Primary data were collected from December 2021 to January 2022. Information was collected by personal interviews with respondents. Prior to collection, the objectives of the study were clearly explained to the respondents. Information were collected regarding the women's age, education, marital status, family size, social status, type of products, daily income, number of selling products, management cost, payment information, interests, preferences, shopping behavior as well as some data associated with e-commerce, the source of funds, the effect of the COVID-19 pandemic, etc. Some data were also collected from secondary sources like government documents, related literature, books, journals, newspapers, articles, theses, and websites.

2.4. Variables and their Measurement

The independent variables of the study which influence the empowerment of women through e-commerce business are age, family members, education, monthly income, when involve with e-commerce, type of products, spending time for e-commerce, sole profession or part time, training. Based on their statement, a respondent's age is calculated in terms of actual years. Educational status was measured by the number of years of schooling. Based on the respondents' statements, the collected data was divided into three categories: Graduate, postgraduate, & others. The entire number of members of a family, including the responder, his wife, children, and other permanent dependents who lived together as a family unit, was referred to as family members. Monthly income of the respondents was measured in Bangladeshi taka (BDT) on the basis of total monthly earning from e-commerce sources of their family. The respondents involve with E-commerce categorize by two options: running study, & after completion of study. How much time do respondents spent for their E-commerce business was divided into five categories: 2 to 3 hours, 3 to 6 hours, 6 to 8 hours, 8 to 10 hours, > 10 hours. The e-commerce business is sole profession of most respondents measured by two factors: yes or no. The training of most respondents was measured by two factors: yes or no.

The attitude of the respondents toward women's empowerment through e-commerce was the dependent variable. It was measured by using 5-point modified type Likert scale. Different statements based on their e-commerce business estimate their attitude levels, which helps to measure the dependent variable. A respondent's attitude toward women's empowerment through e-commerce was influenced by his feelings, beliefs, and actions regarding various advanced technologies. The scale had ten statements, all of which were positive; there were no negative statements. Only statements that reflected a favorable attitude toward e-commerce were deemed positive. The words "strongly agree," "agree," "no opinion," "disagree," and "strongly disagree" were used to express the respondents' opinions. Positive statements received scores of 5, 4, 3, 2, and 1 for strongly agree, agree, no opinion, disagree, and strongly disagree. The respondents' attitudes about women empowerment through e-commerce were assessed by adding their scores on all 10 items, thus, a

respondent's attitude toward women empowerment through e-commerce could range from 10 to 50, with 10 indicating a

strongly negative attitude and 50 indicating a strongly positive attitude.

Table 1 Distribution of the respondents according to their socio demographic characteristics (N=60)

Variable	Categories	Frequencies	Percentage	Mean
Age	Young (<29 years)	41	68.3	27.13
	Middle (29 to 52 years)	19	31.7	
	Old (>52 years)	0	0	
Family Member	< 3 (Small Sized)	12	20.0	4.33
	3 to 6 (Medium Sized)	46	76.7	
	>6 (Large Sized)	2	3.3	
Education Qualification	Graduate	16	26.7	-
	Postgraduate	17	28.3	
	Others	27	45.0	
Marital Status	Married	28	46.7	-
	Unmarried	28	46.7	
	Others	4	6.6	
Earning Member	Single member	28	46.7	1.67
	Double member	23	38.3	
	Three members	9	15.0	
Designation	Upper level	29	48.3	-
	Mid-level	24	40.0	
	Lower level	7	11.7	
Monthly income (BDT)	Low <10000	30	50.0	22966.47
	Medium >10000 to < 30000	17	28.3	
	High >30000	13	21.7	

2.5. Data Analysis

To meet the study's goal, data from respondents were collated, coded, and valued. Both primary and secondary data were scrutinized, checked, and carefully edited to get the appropriate and related information after collection. The data were analyzed and presented mostly in tabular form because it was simple to calculate, widely used and easy to understand. The tabular analysis was mainly based on some statistical measure like average, percentage etc. with the help of SPSS & MS excel computer application. To explain the numerous independent and dependent factors, the respondents were separated into multiple groups for each category. When the data transferred to a coding sheet, each question was given a numerical score. Simple statistics like frequency counts, percentages, mean, and standard deviation were used to understand the descriptive data.

3. RESULTS AND DISCUSSION

3.1. Respondents Socio-demographic Characteristics

Table 1 reveals that the majority of respondents (68.3 percent) were at the young age group (<29 years), with an average age of 27.13 years, while 31.7 percent were middle age (29 to 52 years) and 0 percent were old (>52 years). The majority of the respondents had a medium-sized family (76.7%) with 3 to 6 members, some had a small-sized family (20.0%) with <3 members, and the large family (0%) had >6 members with a 4.33 average. The data also shows that 27.2 percent of respondents are from postgraduate, and 26.2

percent are from graduate. As a result, it's simple to deduce that the literacy rate in the study sample was very well. Most of the respondents (47.5%) were married, some of them (25.9%) were unmarried and (6.6%) other categories like widow or divorcees. Most of the respondents (48.3%) had single number for earn, followed by 2 members (37.7%) and three members of (14.8%) respectively. Most of the respondents (48.3 %) had upper-level designation, some of them (40.0%) had mid-level and (11.7%) had lower level. Most respondents (50%) had a low level of monthly income, followed by medium income (28.3%) and high income (21.7%) with an average of Tk. 22966.47.

3.2. Involvement in E-commerce

Respondents were active in e-commerce in a variety of ways, including owning a business, working, or following a family tradition. Figure 1 indicates that the majority of those polled (91.70%) are launching their own e-commerce ventures. It is both emotionally and financially rewarding to own a business. An internet business owner will have more creative and management freedom as well. The owner has more independence and more control over them than people that work as employees. So that's why 6.1 percent of respondents work as employees. There were only 2.2 percent of respondents involved in e-commerce by family tradition. Because of their family duties, financial situation, or interests, the majority of respondent's desire to start their own e-commerce business. Owning their own business gives them an opportunity to do what they love. Given the economic problems of the past couple of years, never having

to worry about getting laid off may be just the reason you need to start an e-commerce business. Because of these reasons, the number of self-employed individuals is higher.

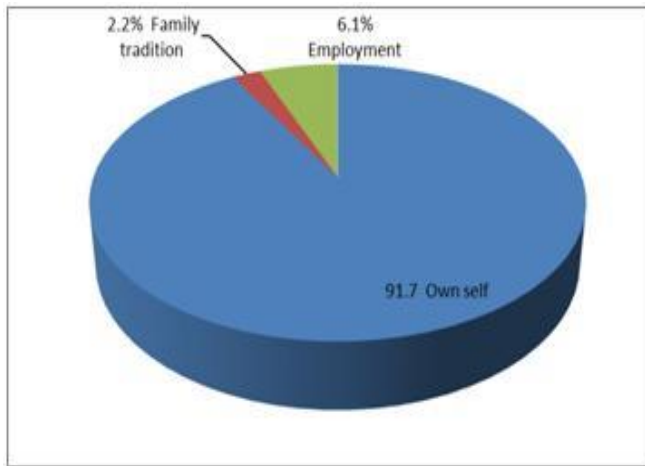


Fig. 1 Distribution of the respondents according to their involvement in e-commerce.

3.3. Educational Status During E-commerce Business

The survey results show that most women (65.0%) who start their e-commerce businesses were running students. They were involved with the business because of their part-time work, personal financial support, passion, hobbies, and other causes. Another 35.0 percent of women started their e-commerce business after finishing their studies. Many women began their e-commerce businesses while still in education. They did not, however, close their firm after they married. It became more about their independence and self-confidence, about creating something on their own.

3.4. Extent of Participation for E-commerce

Women's work schedules are widely variable; some work part-time for short or extended periods of time, while others work full-time. The information of the survey indicated that the majority of respondents (38.3%) spent time on their e-commerce business 3 to 6 hours, with several women (25.0%) providing 6 to 8 hours per day for their work. About 21.7 percent of respondents spent 2 to 3 hours, 11.7 percent of respondents worked 10 hours, and 3.3 percent of women spent more than 10 hours daily. The amount of time respondents spend working is determined by their business types as well as their other professional talents. If e-commerce is their primary source of income, they are extremely dedicated and willing to put in long hours when necessary. If they are working with food, they will require additional time. The gendered division of home responsibilities, women's position in the vertical and horizontal division of labor, and city of residency all influence women's work-time pattern.

In terms of extent of participation, Figure 2 reveals that about 60.0% of the respondents participated in their e-commerce business often (300 to 365 days in a year), with 28.3% of the respondents participating in e-commerce. Around 6.7% of the respondents often participated (one day

in a month) and 3.3% of the respondents rarely participated, respectively. One of the respondents was never found to their extent of participation.



Fig. 2 Distribution of the respondents according to their extent of participation.

3.5. Types of E-commerce Business

Women empowerment started their journey in Chapainawabganj Bangladesh and have had great success there. Figure 3 shows that women contribute to the economy of Chapainawabganj in a variety of ways, including 15.0 percent in women cloth & ornaments, 13.3 percent in cosmetic products, 13.3 percent in food items, 11.7 percent in only women cloth, 11.7 percent in food items & women cloth, 6.7 percent in shoes, and 5.7 percent in books, 6.7 percent in different types of show pieces, 3.3 percent in ornamental plants, 1.7 percent in children's toys, 1.7 percent in ornaments, 1.7 percent in cosmetics & ornaments, 6.7 percent in others products. Women are particularly interested in numerous forms of internet businesses in today's culture. Products are sold directly online, eliminating the middleman and increasing profits; similarly, inputs are obtained directly, lowering costs yet again.

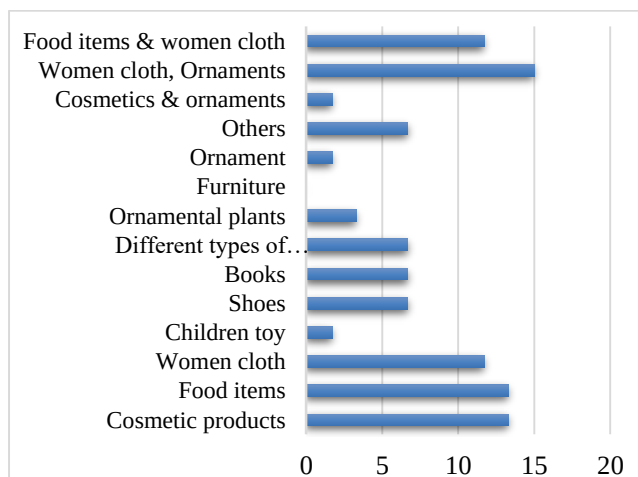


Fig. 3. Distribution of the respondents according to the types of products they sell in their e-commerce business.

3.6. Online Platform for E-commerce Business

E-commerce may communicate with customers via platforms like Facebook, Instagram, YouTube, and other Websites. Most women entrepreneurs in Bangladesh build a page for their business, offer critical information about their firm, and upload photographs of their items to various social networking sites. Internet Company is undergoing a transition because of these social networking sites, with female entrepreneurs being able to easily update any product on arrivals, promotions, and consumer enquiries about pricing and shipping, among other things. For these performances, the respondents of the research area additionally created a Facebook page and group.

Social media is one of the instruments that female entrepreneurs have used in the past. Perspectives on Women's E-Commerce in Chapainawabganj about 41.7% women using both Facebook & Instagram, 40.0% in facebook, 10.0 % in Facebook, YouTube & others platform, 3.3% using YouTube, 3.3% involve with Instagram, and 1.7% respondents involved with others platform respectively. Facebook is the world's largest social media network and the second-largest website. This platform is unique in that it allows businesses to actively participate and collaborate with their customers in order to encourage them to share and disseminate positive information. Most of the respondents have E-commerce group or page. Facebook groups or pages perform great roles for their businesses. They can easily communicate with customers through this page or group.

Table 2 Distribution of the respondents according to the used online platforms for E-commerce

Variable	Categories	Frequencies	Percentage
The platforms for E-commerce	Facebook	24	40.0
	Instagram	2	3.3
	YouTube	2	3.3
	Facebook & Instagram	25	41.7
	Facebook, YouTube & others	6	10.0
	Others	1	1.7
Total		50	100.00

The majority of respondents (63.3%) have 500 to 50000 members in their E-commerce Facebook group, while 31.7 % have more than 50000 members. Only 5.0 % have less than 500 members, with average joined people is 168888. But it will not be the permanent number because the number of members is increasing day by day. People will like the page or group, and then they will be added to it. On average, 74193 peoples liked and followed their Facebook page, where 70.0% of the pages have 500 to 50000 followers, 18.3% have > 50000 members, and 11.7% have 500 members. Women create approximately 12,000 pages on the

social networking site 'Facebook,' according to Haque (2013). These numbers continue to rise. Entrepreneurs can communicate with clients through platforms like Facebook, according to Nylander & Rudstrom (2011). One of the most effective venues for boosting female e-commerce is Facebook. It is easier to access and disseminate information than any other commercial medium. Women are more likely than men to use Facebook. When it comes to learning about the business world, women encounter a slew of roadblocks that keep them from breaking into the field. Regrettably, Facebook has entirely transformed the digital advertising landscape by establishing a power dynamic, which includes face-to-face connection, financial strength, political and social position, time and expense limits, a lack of knowledge, and so on.

3.7. E-commerce Sites in Chapainawabganj

In Chapainawabganj, several e-commerce sites are active. Cake Tune is one of them, and it has grown to become its own self-largest e-commerce food item business, with 100 percent own investment. Like this, there are various platforms which are listed below.

- Dreams kitchen,
- Flitters gallery,
- Krishani,
- Bunny bakes
- Romonirsowndorjo,
- Sonsar
- Chapai online store,
- Satrong Boutique,
- Bismillah store
- Nur nowkshi& others.

As people shift from offline to online shopping, delivery systems are being improved. They are becoming smarter and more automated. Food items delivered by food panda, 24 hours, food zone in Chapainawabganj.

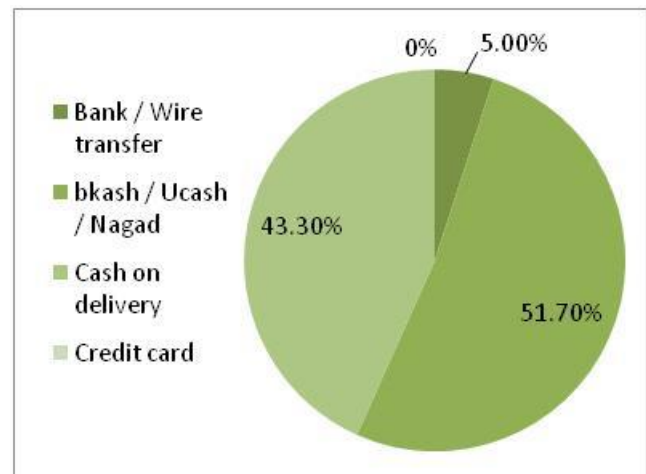


Fig. 4 Distribution of the respondents according to their payment method.

3.8. Method of Payment

Bangladesh is rated 47th in the world for e-commerce. according to data, cash is used in 90% of product purchases,

which is terrible. The owner of the page phones to confirm the order because it was placed digitally. The things are delivered to the customer by the e-commerce company, which accepts payment in cash. In such instance, complete e-commerce has not yet been implemented in Bangladesh.

The goal of this study was to add to the expanding body of knowledge on this topic by conducting a systematic review on Chapainawabganj women's e-commerce. Figure 4 indicated that the respondents facilitate payment to customers by bank/wire transfer, BKash/Ucash/Nagad, Cash on Delivery, or Credit Card. Most of the respondents (52%) used Bkask/Ucash/Nagad, while 43% used cash on delivery.

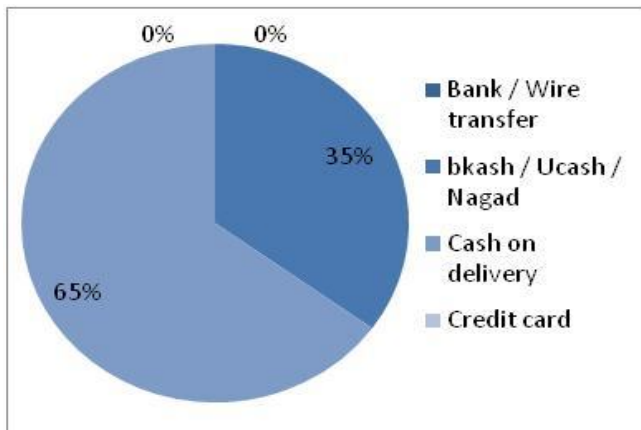


Fig. 5 Distribution of the respondents according to their customer preferring payment method.

Only 5.0 percent of the respondents used bank/wire transfer. Where figure 5 shows that most of the customers (65.0%) preferred for payment by cash on delivery, 35.0% customer preferred Baksh/Ucash/Nagad. The customer likes to see the products first and then fill in the payments.

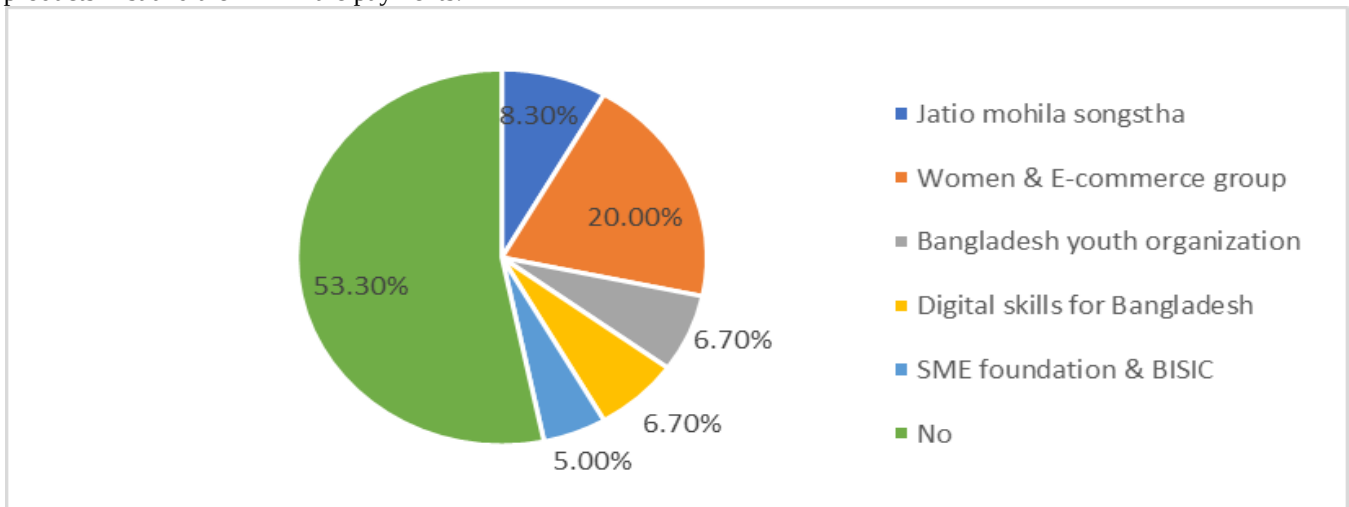


Fig. 6. Distribution of the respondents according to their training for e-commerce.

3.11. Source of Capital

Respondents' sources of financing for growing their e-commerce firms include personal savings, loans, and

3.9. Training of Women for E-commerce

The value of training is emphasized in most of the case examples. Women receive ICT training as well as management and business practices training, such as marketing, purchasing, data analysis, making sound business decisions, staff management, and negotiation methods, among other things. Many women historically lack these skills; therefore, the training allows them to better manage and build their enterprises. Fig. 6 depicts the 53.3% of women never got training from any organization for their e-commerce business. Many of the women have received training from the Women & E-commerce Group, Jatio Mohila Songstha, Bangladesh Youth Organization, Digital Skills for Bangladesh, SME Foundation, and BISIC.

3.10. Peoples Feedback on the E-commerce Business

In the beginning of their E-commerce business the feedback of their surroundings people was positive, negatives or no response. Most of the people of Chapainawabganj are very conservative minded. Sometimes society, family, friends, never allows women to be involved in business. However, e-commerce businesses are online-based jobs, so women can participate in this work from home or anywhere. Women can do their work at any time. E-commerce is more precisely defined with family members than with most of the family support to work. Hopefully some free-minded or supportive families will give support for women's empowerment. According to the survey results, 58.3 percent of people received positive feedback at the start of their e-commerce business, while 26.7 percent received negative feedback. Those people who give negative reactions also showed positive responses to seeing the importance of women's empowerment, economic support for their families, and social progress.

borrowing from family and friends. Majority of respondents (70.0 percent) began their own e-commerce business with their own money. Approximately 18.3 percent of women acquire their money from family or friends. Family,

relatives, and friends provide both financial and emotional assistance to these ladies. Only 11.7 percent of those surveyed received loans from their banks. There are 93.3% of the respondents took loan from NGOs for e-commerce indicating lower monetary support for their development.

On the other hand, some respondents (20.0 percent) obtained loans from government agencies. Many women's empowerment programs are supported by government officials, who also provide loans. The majority of responders (43.3%) were inspired by themselves. Another 30.0 percent of respondents were influenced by family and friends to get active in their e-commerce business.

3.12. The Current State of the Marketing Strategy

The interviewees were found to be active in a variety of marketing methods, and some of them were also involved in generating films, Facebook Live, posting images, and selling things at a loss, according to the survey results. Table 7 shows that 53.3 percent and 23.3 percent of respondents, respectively, utilize Facebook for business and promote different offers in various Facebook groups as a marketing approach. 15.0 percent of respondents are active in Facebook group sharing, 5.0 percent and 3.3 percent of respondents are directly contacted, and 3.3 percent of respondents are sharing YouTube videos for marketing. About 48.3% of respondents said they utilized Facebook Live to promote their e-commerce firm. The majority of respondents, or 56.7 percent, did not make or share videos of their items.

However, 43.4 percent of those polled developed films and images to demonstrate the increased interest of customers. Because these videos were widely accessible to clients, they are shared on a variety of social media channels.

The majority of respondents (81.7% and 71.7%, respectively) maintains proper documentation policies and account settlement. It will be very important for any successful business. It will aid in distinguishing between the business's loss and profit. However, 18.3% and 28.3% of respondents, respectively, did not maintain proper documentation and account settlement. The majority of respondents did not lose money by selling their products at a lower price than they paid for them. However, 25.0 percent of respondents offered their products at market prices on occasion. It will happen for a variety of reasons, such as food goods expiring shortly, the owner holding flash sales, or offering special deals over the holidays, among others. Customers ordered things via the Facebook page, according to 75.0 percent of respondents. They received 20.0 percent of their orders through their website. Customers have not ordered anything through face-to-face communication. The majority of respondents (36.2%) imported products from other countries or regions. 23.3 percent and 21.7 percent of respondents created their own patches from the wholesale market. 11.7 percent of those polled prefer products from outside the market as a whole. Only 6.7 percent of respondents' products were tested before being sold and then modified.

3.13. Extent of Cyber Security

Respondents encountered numerous types of cyber situations on e-commerce sites. Majority of 53.3 percent of

respondents had medium cyber security, while 18.3 percent and 18.3 percent of respondents were exposed to high and poor cyber security conditions, respectively. Only 10.0 percent of women reported having very poor cyber security. 48.3 percent of respondents said they have been harassed or cyberbullied on their e-commerce platforms. The majority of those polled said they had never experienced harassment on their business platforms. Women account for 48.3% of those who had experienced cyber bullying on massage sites. 26.7 percent of respondents had to deal with various forms of social media, and 25.0 percent had to deal with it on their mobile phones. 78.3 percent of respondents indicated that their e-commerce business has experienced no economic or marketing impact as a result of cyber bullying. Cyber bullying has affected the economy and marketing, according to only 21.75 respondents. The majority of the respondents' (60.0%) initiative to combat cyberbullying was documented on Facebook. People believe it is simple because of these Facebook occurrences. On the other hand, 28.3 percent of those asked claimed they were online. 8.3% and 3% of responders, respectively, were personally contacted and reported to the police station. Unknown phone calls and messages harassed the majority of respondents (33.3 percent). According to 23.3 percent and 23.3 percent of both respondents, customers create fake claims of product harm and publish them on review sites. Only 20.0 percent of respondents said they have never faced a situation like this.

3.14. Electronic Commerce as a Tool for Determining Women's Empowerment

Among the 11 indices used to calculate women's empowerment through e-commerce, 95.0 percent engaged in income-generating activities, with a mean of 1.97, followed by 66.7 percent claiming that e-commerce business is the primary source of their income, and 33.3 percent involved in other primary sources of income, with a mean of 1.67, which means government job or corporate job or others. With a mean of 0.33, 80.0% respondents were able to make their own decisions, while 20.0 percent were unable to do so. They also had an excellent opportunity to further their education. Approximately 5.0 percent of respondents responded negatively to educational rights, with only 95.0 percent responding positively with a mean of 1.95, where males want women to have rights because men care about their daughters and women's rights increase investments in children's education. 71.7 percent of women pursue e-commerce as a solitary profession, while 28.3 percent of respondents pursue it as a dual career, with a mean of 1.72. The majority of respondents (80.0 percent of women) have the freedom to work in e-commerce, however 20.0 percent of respondents, with a mean of 1.80, do not have the freedom to work freely in e-commerce. 63.3 percent of respondents answered that the social system has no negative impact on e-commerce, while 36.7 percent claimed that it does. With a mean of 1.60, 60.0 percent of women wish to incorporate more women in their e-commerce firm, while 40.0 percent do not. With a mean of 1.90, 90.0 percent of respondents believe that women's empowerment is growing more competitive on a daily basis, while 10.0 percent do not.

The majority of respondents (60.0 percent) believe that religious beliefs do not impede women's empowerment, but 40.0 percent of respondents (a mean of 1.40) believe that religious beliefs impede their e-commerce business. Many respondents (95.0%) believe that women should participate in the e-commerce industry for women empowerment on a daily basis, whereas 5.0 percent disagree. This reveals that although 100% of respondents were involved in economic participation, not just one person, but an entire family, has been successfully empowered through work and income-generating activities.

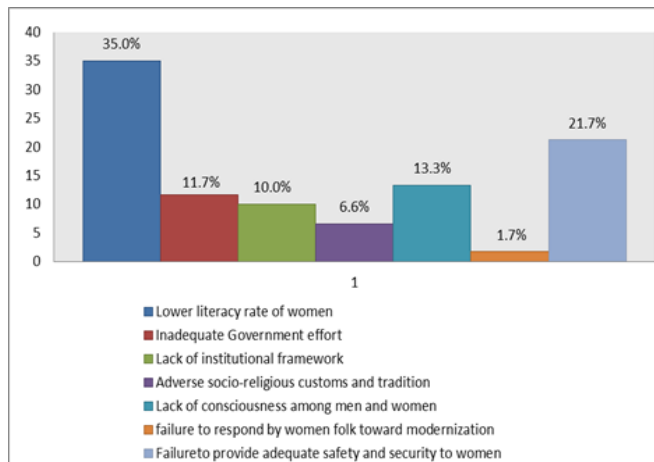


Fig. 7 Distribution of the respondents according to their obstacles to women's empowerment.

3.15. Women's Empowerment Obstacles

Lower female literacy rates, insufficient government effort, a lack of institutional framework, negative socio-religious

customs and tradition, a lack of awareness among men and women, a failure by women's folk to respond to modernization, and a failure to provide adequate safety and security to women were all reported to be barriers to women participating in e-commerce. Figure 7 despite that the lower literacy rate among women was 35.0 percent, followed by failure to provide adequate safety and security to women at 21.7 percent, lack of consciousness among men and women at 13.30 percent, insufficient government effort at 11.70 percent, lack of institutional framework at 10.0 percent, adverse socio-religious customs and tradition at 6.70 percent, and failure by women folk to respond to modernization at 1.70 percent. By providing proper education, other facilities, etc., illiteracy levels decrease.

3.16. Constraints in the Marketing System of E-commerce

According to the data of figure 8, the most significant barrier was a lack of marketing experience (33.3 percent), followed by a lack of marketing expertise (21.7 percent). Only 5.0 percent of marketing-related issues are caused by a lack of raw material supply for timely production and a variance in raw material pricing, while 6.7 percent and 6.7 percent are caused by a shortage of raw material supply for timely production and variation of raw materials respectively. To address these issues, you will require a marketing-experienced person to work, monitor raw material supply time, calculate suitable raw material prices, and always have some additional raw materials stockpiled.

3.17. The Technical Barriers of E-commerce

According to the results of figure 9, the majority of respondents (23.30 percent) believed that the cost of Facebook boosting is prohibitively expensive.

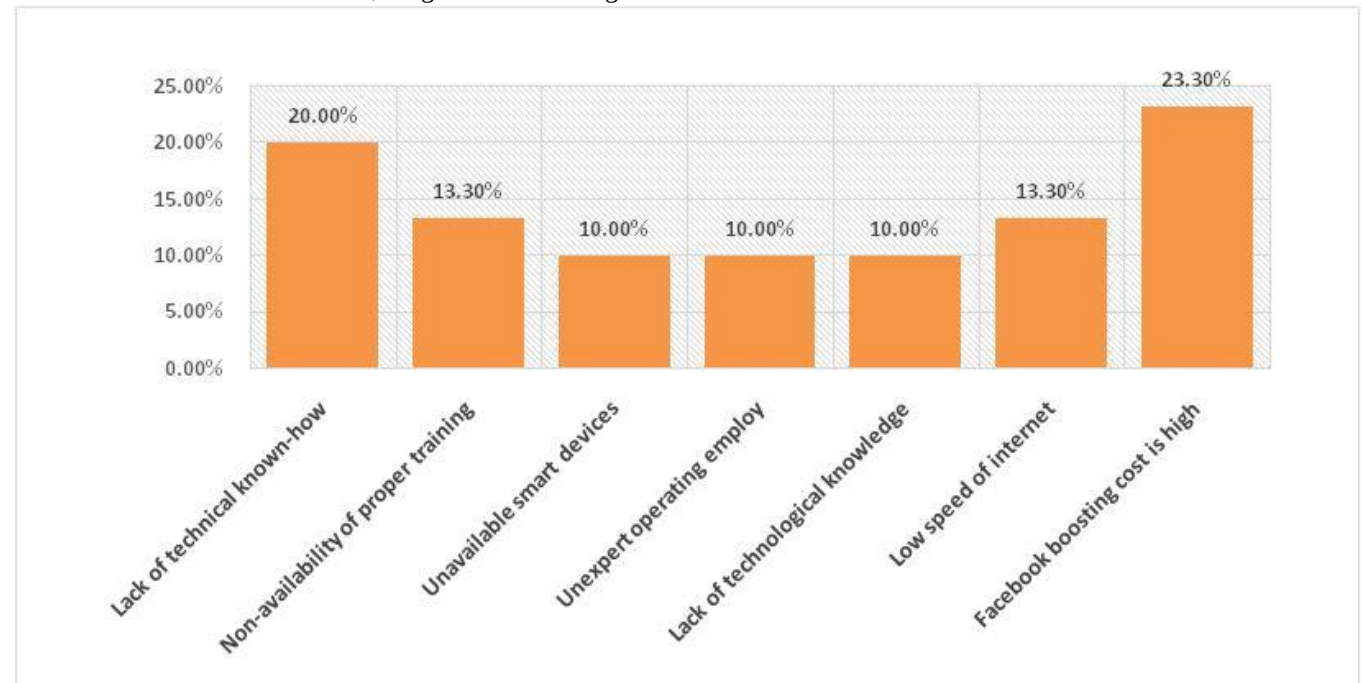


Fig. 8 Distribution of the respondents according to their marketing systems' limitations of e-commerce.

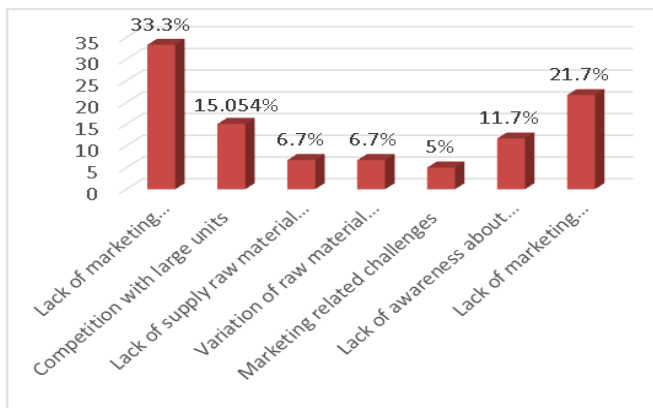


Fig. 9 The distribution of the respondents according to their technological barriers of e-commerce.

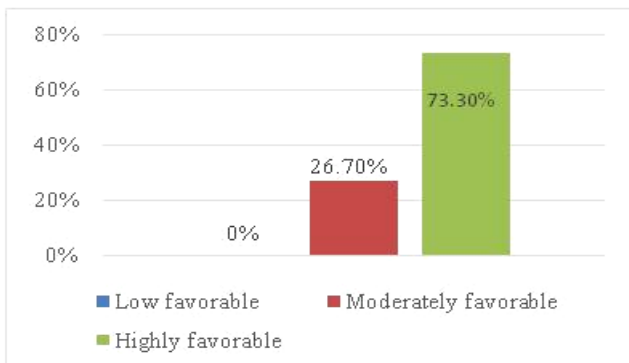


Fig. 10. Distribution of the respondents according to their attitude towards e-commerce.

Around 20.00 percent of respondents reported a lack of technical knowledge-how, 13.30 percent reported a lack of proper training, and 13.30 percent reported a low internet speed. 10.0 percent and 10.0 percent of smart device inaccessibility and a lack of sufficient technological expertise. Furthermore, 10.0 percent of inexperienced operators were employed which is also a problem for business.

3.18. The Attitude of the Respondents Towards E-commerce

The attitudes of respondents were evaluated using ten distinct statements and grouped depending on their scores, as shown in figure 10. According to the data in Fig. 10 majority of respondents (73.30 percent) had a highly favorable view regarding women's empowerment through e-commerce, while just 26.70 percent have a moderately favorable attitude. There were no women in the study region who had a negative attitude about women's empowerment through e-commerce, indicating that women in the study area are eager to gain empowerment.

3.19. Rank order of the attitude statements

According to the data in the table 3, "Involvement in e-commerce activities enhances economic standing," which ranked first with a score of 262.2, and "Life standards improve through e-commerce activities," which placed second with a score of 256.8, are both positive statements, according to the data in the table. Education is required for e-commerce activities, and "Government may play a vital role in women's empowerment" came in third and fourth place, respectively, with scores of 244.2 and 241.8.

Table 3. Rank order of the attitude measuring statements based on the score.

SL No	Statements	Average	Score	Rank
1	Involvement in E-commerce activities improve social status (+)	3.72	223.2	7 th
2	Involvement in E-commerce activities improve economic status(+)	4.37	262.2	1 st
3	Life standard improve through E-commerce activities(+)	4.28	256.8	2 nd
4	Involvement in E-commerce activities improve help to understand their rights in society. (+)	3.47	208.2	9 th
5	Present situation is suitable for involvement in E-commerce(+)	4.02	241.2	5 th
6	Gender discrimination fades away through women participation in E-commerce(+)	3.37	202.2	10 th
7	Education is necessary for E-commerce activities(+)	4.07	244.2	3 rd
8	E-commerce involvement improves decision making ability (+)	3.70	222	8 th
9	Women empowerment helps to develop future generation (+)	3.73	223.8	6 th
10	Government can play important role in women empowerment(+)	4.03	241.8	4 th

With a score of 241.2, "The current scenario is ideal for participation in e-commerce," yet "Involvement in e-commerce activities enhances and helps to understand their rights in society," rated 9th with a score of 208.2. Women's participation in e-commerce, "which ranked last (10th) with women," helps to eliminate gender discrimination.

5. CONCLUSION

According to the findings of the preceding study, most of the participants were young, running students from medium-

sized families. The rest of them were married, with only one earning member, and held upper-level positions in their e-commerce enterprises. E-commerce is the primary source of income among the respondents. Most of the respondents have their own e-commerce business, and they start this with their own money. They work three to six hours every day. Mostly involve with women's cloth and ornaments e-commerce business. Most women started their e-commerce businesses before completing their studies because of their part-time work, personal financial support, passion, hobbies,

and other reasons. The Facebook and Instagram platforms were used for e-commerce among the respondents. They created Facebook pages and groups or profiles for their businesses, like Cake Tune, Sogsar, Bunny Cakes, etc. Different pages have different numbers of individuals joined. Respondents prefer to pay using Bkash, Ucash, or Nagad. Most of the respondents said their cyber security is moderate and they also face economic damage from cyber bullying or harassment. Most of the respondents created videos and photos of products and posted them on social media, kept proper account settings with proper documentation policies, and sometimes sold products at a loss for their marketing strategy. And 80 percent said they had the freedom to make their own decisions. The majority of the respondents believe that lower literacy is a barrier to women's empowerment and that a lack of marketing experience is the most significant constraint on their marketing system, with most of them believing that Facebook boost costs are too expensive. The attitude of the respondents towards women's empowerment through e-commerce were highly favorable. The government should take the lead in developing a framework that governs e-commerce platforms and ensures that they are safe for users. However, the banking system, numerous corporate and public organizations, as well as educational institutions, must all contribute to the growth of the e-commerce sector.

ACKNOWLEDGEMENTS

We would like to express our heartfelt gratitude to the EXIM Bank Agricultural University and all the individuals who contributed to the successful completion of our research. Firstly, we would like to extend our sincere appreciation to the authority of EXIM Bank Agricultural University for their generous support throughout the research. Their unwavering guidance and valuable feedback have been instrumental in shaping our work. We also extend our gratitude to our fellow colleagues who provided us with insightful feedback and support during the research process. Finally, we would like to thank the final year students who participated in our research. Their cooperation and dedication were essential in ensuring the success of our study. We would like to acknowledge the support and assistance of all these individuals in helping us to achieve our research goals.

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