

Assessing Online Consumers' Buying Pattern and Attitude to E-Commerce During COVID-19: A Study in Dhaka City

Hamida Akhter, Ashis Talukder¹

¹*Department of Management Information Systems, Faculty of Business Studies, University of Dhaka
Dhaka- 1000, Bangladesh*

Abstract: In business, customers are believed as an eyeball, and without knowing the customers properly, none of the business organizations can survive. Scholars have studied the potentiality and challenges of E-commerce. For avoiding the spread of COVID-19, countries have gone to lockdown for a longer time, and therefore, consumers have purchased products online. COVID-19 led us to an unprecedented situation. This study examines the buying pattern and attitude of online customers to e-commerce sites in this pandemic situation. The study's findings reveal that complete product information, easier price comparison, and a wide range of products' accessibility are positive aspects of e-commerce sites considered by online purchasers. However, online consumers' asserted some negative aspects about e-commerce sites such as low-quality products, inability to examine products, and lack of faith. Study participants do not prioritize the availability of unique products when purchasing online. Usually, food, apparel, and beverage items are frequently purchased during this pandemic, and BDT 2000 to BDT 6000 amounts are spent per online transaction by online purchasers. The majority of the study respondents stated that their frequency of online purchasing is around two times to three times per month.

Keywords: *e-commerce; COVID-19; buying pattern; attitude; online consumers.*

Introduction: Previously, consumers purchased from physical stores but nowadays, due to the blessings of the internet, consumers purchase products from e-commerce sites. The number of internet users is increased compared to the past decades. Therefore, purchasing products online is also increases gradually. Several factors influence buying intention from e-commerce sites. Numerous prior studies have examined the benefits and risks as well as factors influencing online buying intention.

During the pandemic, people have to stay home to avoid COVID-19. Therefore, they cannot visit the physical stores. They can save their time and also maintain social distance by online purchasing. Consumers' behavior has changed worldwide due to strict lockdown and maintaining hygiene to avoid Coronavirus [1]. Since almost all countries enforced strict lockdown; consequently, purchasing from offline shops was shifted to online stores. In addition, the overall online consumption rate was increased globally during the outbreak. In Bangladesh, from March 2020, COVID patients were detected; therefore, a lockdown was implemented throughout the country for a long time. As a result, necessary products, hygiene-related products were started from purchasing online.

Kim [2] asserted that employees are working from home instead of the office; likewise, consumers are buying online rather than retail shops. In fact, purchasing online is now a very familiar activity to consumers, as during the outbreak, consumers using the internet more than before [3]. In their research, Rohm & Swaminathan [4] demonstrate that customers benefit from online buying in terms of time flexibility, product variety, and geographical advantage. In India, e-commerce popularity is increased due to the easy product return policy [5]. Moreover, Soopramanien [6] finds that when consumers gain experience and knowledge, their fear of online purchasing decreases.

Few studies [7-9] have been conducted in Bangladesh to assess online consumers' attitudes and purchasing patterns. Among these research, some focus on particular products, whereas others focus on selected e-commerce sites. This study concentrates on the overall purchasing style and attitude of web shoppers. The major research objectives of the study are to understand the online purchasing patterns of consumers; assess the attitude of online purchasers towards e-commerce sites; identify the perceived benefits and reasons for not purchasing from e-commerce sites.

Article history:

Received 14 June, 2021

Received in revised form 24 Sep 2021

Accepted 01 Nov 2021

Available online 30 Nov 2021

Corresponding author details: Hamida Akhter

E-mail address: hamida.mis@du.ac.bd

Tel: +880 1729411975

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Literature review: Many epidemics were occurred in the world and always had adverse effects on business and economics [10]. Numerous studies have been conducted to assess critical factors affecting the purchasing decision of online consumers.

During the pandemic, consumers prefer online shopping because of health risks, and e-commerce gives them hassle-free shopping. Most of the customers' perception of online shopping is changed during the pandemic. Most customers purchase essential products while apparels and electronic goods have equal priority to them [11].

The study results of Ali [12] show that Iraqi consumers' online purchasing rate increased during the pandemic. However, overall sales are dropped in Iraq compared to the previous year's sales volume. Global trends of e-commerce during the pandemic are studied by Bhatti *et al.* (2020) cited in [13], and findings of the study findings reveal that global online shopping is increased in the COVID-19. Nevertheless, consumption and investment are reduced in many countries. In China, consumption levels in several markets are affected negatively due to the pandemic [14]. In Britain, people are now spending on necessities goods rather than luxury products [15].

Sen [16] finds that the price and quality of the product, online seller factor, and convenience factor influence online purchasing behavior. There are several factors affecting purchasing decisions. The most significant factors are faith, easy product return and payment method, and cashback warranty if any defect is found [17].

Findings of a study show that technical, trust and online customer service factors are major influential factors regarding online purchasing. Online customer satisfaction mainly depends on the trustworthy relationship with online sellers. Customers' loyalty increase when they feel that their personal information is protected [18]. Privacy, trust, [19] and secured payment are crucial aspects of online shopping [20]. Furthermore, Rashid *et al.* (2019) cited in [21] asserted that perceived benefit, trust, and attitude towards online shopping are significant factors that impact online purchasing decisions.

Satisfaction of web shoppers is positively associated with consumers' privacy protection, good faith, perceived advantage, and good reputation of business firms [22]. A research article demonstrates that buying intention is influenced positively by customers' cognitive factors and anticipated advantages, whereas adversely influenced by anticipated threats [23]. Another study reveals that highly educated persons are less concerned about security aspects. Consumers believe that the price of online products is more competitive than a traditional shop; therefore, they will be able to save money. However, females are not satisfied with online shopping because they cannot examine products online [24]. However, single and young female customers purchase more from e-commerce than male customers [25]. The young generation who have purchased from web stores have optimistic thinking towards web shopping compare to those who have not purchased [26].

Setiyanto & Syakir [27] show that fulfilling consumers' demand, anticipated effectiveness, and usability influences buying decisions partially or simultaneously. In a research study, it is also found that assumed fear, and lack of social involvement, decline online buying tendency [28]. Moreover, Hebbar *et al.* (2020), cited in [5], suggest that perceived benefit substantially impacts online purchasing attitudes. In addition, online purchasing intention is significantly influenced by attitude and domain-specific innovativeness. Fastoso *et al.* demonstrate that anticipated threats and customers' viewpoints are linked adversely. In addition, faith in web merchants is an essential factor that enormously impacts buying decisions [29]. Online shoppers become pleased when they are convinced that online merchants firmly maintain consumers' privacy [30]. Furthermore, a user-friendly website improves customers' expectations which reinforces repeated online buying [31].

Although online purchasing is increasing day by day, consumers in Singapore still prefer purchasing from a shopping mall to get a real shopping experience. Usage of the internet is increased, but consumers do not purchase online because they are unable to examine products physically [32]. However, consumer's attitude towards online shopping is favorable when they perceive that online purchasing is useful and compatible with their lifestyle. Positive attitudes about online shopping have a significant role in creating online purchasing intention among consumers [33].

In Kuwait, a study was conducted to assessing the risk factors that modify web purchasing behavior during the outbreak. Among the risk factors, financial risk, product-related risk, and hassle due to non-delivery were found as an insignificant impact on online customer's attitudes. However, online customer's perspective was negatively influenced by the convenience risk factor [34]. Rahman *et al.* demonstrated that consumers prefer online shopping in

Dhaka city due to saving time, a wide range of products and services availability. In addition, respondents had the same liking and disliking behavior regardless of their gender. Home delivery was preferred by consumers whereas inability to check product physically were considered as barriers to purchase online. Findings also showed that consumers purchased clothing and accessories in most cases via the cash-on-delivery payment method. Security issues and payment systems were the major concern of online consumers. Nevertheless, consumers had both positive and negative satisfaction in online shopping [35].

Iluno & Yakubu showed that, in e-commerce, internet reliability, internet efficiency, and payment security significantly impacted customers' satisfaction [36]. COVID-19 has changed what and how consumers purchase in their daily life. During the outbreak, they frequently purchase food and medical supplies in advance, which differs from previous habits. Consumers tend to purchase from shops where all necessary products are found under a single roof [37]. A study was conducted to enrich the understanding of which factors driving consumers to purchase online. The result of the study showed that payment security, on-time delivery, convenience, low price, variety of products, and quickly comparable price were factors that encouraged consumers to purchase online. In addition, several factors were identified that influenced online consumers' behavior, such as technological factors, customer-related factors, and product or service-related factors [38]. In Japan, online consumption has increased during the outbreak. Consumers who were more familiar with online shopping prior to the pandemic are now totally switching their purchasing to online. Moreover, consumers who had no prior online consumption history now start buying online with small amounts [39].

To measure the attitude of web shoppers towards e-commerce, we adapted Technology Acceptance Model (TAM) [40]. In TAM Model, customers' attitudes depend on their perceived usefulness and anticipated usability. Further, perceived usability impacts the anticipated effectiveness.

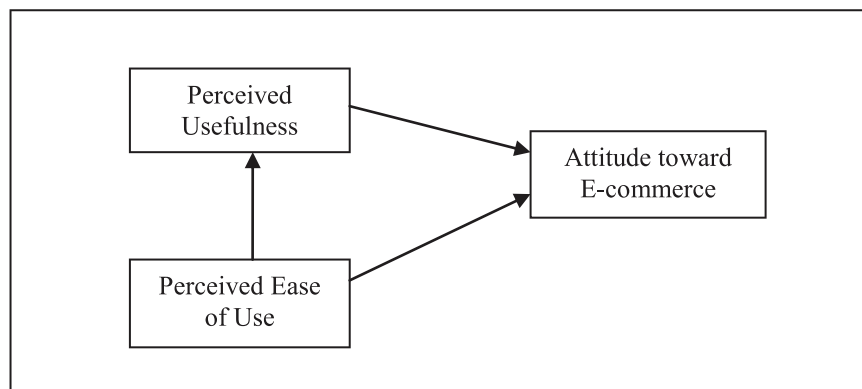


Fig. 1: Adapted research model.

Research Methodology: A quantitative research approach is used, and as a survey tool, a self-administered questionnaire is adapted from prior literature to attain the study results. The questionnaire had three parts: demographic information of respondents, questions about online purchasing, and several statements to examine the attitudes towards online buying. To assess the online consumers' viewpoint, we used Likert 5 point scale.

Five hundred survey questionnaires were sent through an electronic form. Among them, three hundred seventy-five questionnaires were returned to us; therefore, the response rate was seventy-five percent. Only completed questionnaires were used to conduct the study, which was three hundred and fifty.

The study was conducted within Dhaka city, and study respondents were those who use the internet. A probability random sampling technique was used to survey because of time and resource limitations. Descriptive data analysis was used to represent the results of the study.

Analysis and Discussion: The demographic information about respondents is summarized in Table 1. In Table 1, it is indicated that males and females respondents were 43% and 57 %, respectively. The study respondents' age was categorized into five groups. The majority of the respondents (36%) were between 20 years to 30 years. Concerning

educational level, around 60 percent of respondents obtained graduate degrees. In terms of employment status, job holders accounted for 40 percent of employment status while students and business people stood for 23 percent. Approximately 29 percent of respondents earned more than BDT 40000 per month. The percentage of those who earned less than BDT 1000 was 13 percent. The respondents' profile is summarized and given below:

Table 1. Profile of Respondents.

Characteristics	Percentage
Gender	
Male	43%
Female	57%
Age	-
Below 20	14%
20-30	36%
31-40	26%
41-50	17%
More Than 50	7%
Educational Level	-
Undergraduate	27%
Graduated	60%
MPhil/PhD	0%
Others	13%
Occupation	-
Student	23%
Job Holder	40%
Business	23%
Self Employed	14%
Others	0%
Monthly Income	-
Less than 10000	13%
10000-20000	19%
21000-30000	21%
31000-40000	16%
More than 40000	29%
Not Specific	1%

The study participants were asked about their online buying history. Those who have already purchased were requested to answer online purchasing-related questions and rated their expectations towards e-commerce sites. On the other hand, respondents who had no previous buying experience from web stores were asked reasons for not purchasing online.

Table 2 summarized purchasing patterns of online consumers, and from this Table, it is clearly understood that the majority of participants (77 %) had online shopping experiences. Approximately 33% of respondents, having prior online shopping experience, purchased frequency from web stores was two times to three times per month. The percentage of those who spent BDT 2001 to BDT 6000 amounts per online transaction was 48 percent of respondents.

Table 2. Online Purchasing Behavior Pattern.

Particulars	Percentage
Online Purchasing History	
Yes	77%
No	23%
Frequency of Online Purchasing	-
Weekly	18%
2 times -3 times in a week	16%
Monthly	23%
2 times- 3 times in a month	33%
Annually	11%
Expenditure per online transaction (BDT)	-
Less than 2000	31%
2001-6000	48%
6001-10000	15%
More than 10000	6%

Table 3 represents the list of products bought from e-commerce sites by online consumers during the pandemic. In the survey questionnaire, respondents could select more than one alternatives from a given products list if necessary. As indicated in Table 3, the most purchased products online were clothing, and the second-highest one was food and beverage items.

Table 3. Products Buying from E-commerce.

Particulars	Frequency
Apparel	150
Electronic Appliances	76
Foods and Beverage	89
Books	76
Beauty- Care Products	79
Furniture and Home Appliance	48
Others	26

To assess the viewpoint of online shoppers towards e-commerce sites, we used Likert 5 point scale. The study respondents gave their opinion by using Likert 5 point scale on several issues such as detailed product information, variety of products, unique product availability, and price comparison. Table 4 represents the results of online shopper's viewpoints on e-commerce sites. The percentage of those who agreed that e-commerce sites offer a variety of products was 25 percent. Concerning the complete product information, approximately 39 percent of the respondents strongly agreed. Nevertheless, the majority of the respondents (31%) strongly disagreed about the availability of unique products on e-commerce sites. Fourty percent of respondents were agreed that due to e-commerce sites, they could easily compare product prices.

Table 4. Perceived Values about E-commerce.

Likert Scale	Variety of Products	Complete Product Information	Unique Product	Price Comparison
Strongly Disagree	18%	8%	31%	9%
Disagree	20%	18%	25%	11%
Neutral	17%	4%	23%	4%
Agree	25%	31%	13%	40%
Strongly Agree	20%	39%	8%	35%

The following Fig. 2 represents the perceived effectiveness of e-commerce.

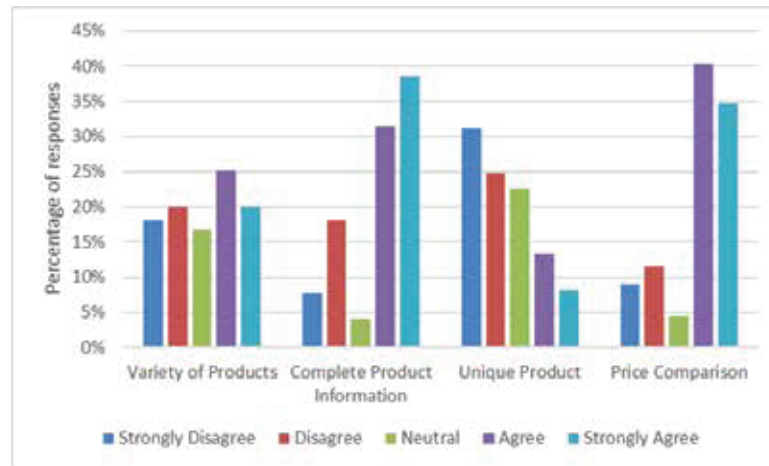


Fig. 2: Perceived effectiveness of E-Commerce.

The study participants who had no prior online purchasing experience were asked to state their reasons for unwillingness to online shopping. The major reasons for unwillingness to purchase online were the low quality of products, the inability to examine products, and lack of faith. The least cause for reluctance to web shopping was the complicated product return policy. Table 5 represents the significant causes of unwillingness to online purchasing, which online consumers identified. Because of these reasons, the respondents preferred purchasing from retail stores rather than web stores.

Table 5. Reasons for Not Buying from Online.

Reasons for Not Buying	Frequency
Inability to Examine Product	132
Lack of Faith	104
Low Product Quality	145
Lack of Privacy	69
Lack of Security	94
Shipment Delay	67
Complicated Product Return Policy	58

Conclusion and Recommendation: When any business organizations understand their consumers' preferences, characteristics they can design their business successfully. During the pandemic situation, many business firms start online selling to survive. Therefore, it is important to understand online consumers' purchasing intension and buying patterns and develop a business model to attract and retain consumers. From the findings of the study, online business owners can get an idea about which factors they should focus on and which aspects they should redesign to gain consumers' satisfaction. E-commerce sites can gain more customers by improving product quality and developing faith among consumers. Consumers prefer examining products physically so business owners can keep both web and physical stores simultaneously. Consumers frequently purchase online when they realize the benefits and are convinced that anticipated threats are reduced.

This study only includes online consumers' of Dhaka city and examines the attitude of web shoppers towards e-commerce sites. In the future, research will be conducted focusing on consumers of several cities of Bangladesh. In addition, the attitude of online consumers towards a particular e-commerce site will be examined in an upcoming research study.

Acknowledgement: We would like to thank Asma Akter (Lecturer, Southeast School of Business, Southeast University, Dhaka) for her valuable advice and encouragement, which enriched our research study.

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