

An Assessment of Consumers' Online Shopping Decision during COVID-19 Pandemic: Insights from Bangladesh

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Abstract

Businesses turned to alternatives and took up online marketing because of COVID-19 pandemic. Online marketing is an important method for streamlining business processes, reducing managerial costs and turnaround time, maintaining social distance, staying at home, protecting against viruses, and illuminating associations with consumers and business partners. At present, online shopping is becoming more popular all over the world, especially for retailers and consumers. Online shopping creates opportunities for both online retailers and consumers. Online shopping behavior involves the process of purchasing goods and services through the internet. After collecting product information, the consumer selects an item according to its requirements and transaction criteria for the selected product, evaluates the product along with other available options and gains post-purchase experience. Online shopping decision is related to the psychological state of the consumers online shopping. Therefore, the purpose of this research was to investigate the assessment of consumers' online shopping decision during the COVID-19 pandemic in the contexts of Bangladesh. The quantitative and descriptive analyses were used in this research. Data was collected from 193 actual local consumers using an online purposive sampling method. Descriptive statistics, collinearity statistics, reliability statistics and multiple regression analysis were used to analyze the data and test hypotheses. According to the findings of this research, web design, product factor, promotional tools, governmental factor and reference groups had a positive and significant relationship with online shopping decision during the COVID-19 pandemic in the context of Bangladeshi consumers. The outcomes of the research will be applied by online based organizations, government organizations, commercial organizations, public institutions, private companies, researchers, and policymakers to inspire retailers' involvement in online business activities during COVID-19 pandemic in the context of Bangladesh.

Key words: COVID-19 pandemic, online shopping, Bangladesh, influential aspect.

1. Introduction

COVID-19 affects individuals in various ways. The majority of infected individuals will suffer from mild to moderate symptoms and recover without hospitalization. COVID-19, also known as the coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2. (SARS-CoV-2). In December 2019, the novel virus was first identified in an outbreak in Wuhan, China. Attempts to contain the virus there failed, allowing it to spread to other parts of China and eventually the entire world. The World Health Organization (WHO) declared the outbreak an international public health emergency on January 30, 2020, and a pandemic on March 11, 2020. The pandemic had caused over 620 million cases and 6.55 million confirmed deaths as of 7 October 2022, making it one of the deadliest in history. Since December 2020, COVID-19 vaccines have been approved and widely distributed in numerous countries.

According to a study published in June 2022, COVID-19 vaccines prevented an additional 14.4 to 19.8 million deaths in 185 nations and territories between December 8, 2020 and December 8, 2021 (Watson et al., 2022; CBS News, 2022). Other recommended preventative measures include social isolation, the use of masks, the improvement of ventilation and air filtration, and the isolation of those who have been exposed to the disease or are exhibiting symptoms. Treatments include new antiviral medications and symptom management. Includes travel restrictions, lockdowns, business restrictions and closures, workplace hazard controls, quarantines, testing systems, and tracing contacts of the infected. (WHO, 2021).

Globally, consumers' shopping behaviors are shifting, and they are increasingly purchasing goods and services online. Online shopping was heavily influenced by social media among consumers. During COVID-19, consumers avoided shopping malls for fear of contracting the coronavirus due to lockdowns, isolation, and fear of infection (Eger et al., 2021). Using social media platforms such as Facebook, Twitter, Instagram, and Pinterest, businesses can encourage consumers to make purchases via online shopping. On social media, marketers have a significant advantage because they can influence or raise awareness about their products and services and encourage online shopping. Businesses can use social media platforms to persuade their existing and potential customers to purchase their essential products and services via online shopping or online business platforms (Chaturvedi & Gupta, 2014). Organizations have influenced consumers through live streaming, celebrity endorsements, online consumer reviews, and promotional tools such as targeted advertising (Geng et al., 2020; Schouten et al., 2020). During the corona pandemic, marketers provided consumers with home delivery services (Wang et al., 2021). Online shoppers have been influenced to make purchases by positive online reviews (Mo et al., 2015). The decision to shop online will benefit both consumers and marketers (Berman, 2012). Some consumers in our modern society are so busy that they lack the time to purchase the goods and services they require. Therefore, they cannot go to the market within a reasonable amount of time. They favor ordering any type of product or service through online shopping. Currently, consumers desire a relaxed social media shopping environment. Marketers provide targeted advertising through social media such as Facebook, Twitter, etc (Luo et al., 2018). Consequently, social media marketing tools are superior to other marketing communication mixes. Positive customer reviews and celebrity endorsements encourage other consumers to shop online.

Bangladesh has been hit particularly hard by the outbreak. Bangladesh's commercial and economic institutions have suffered significant losses (Bhuiyan, 2020). E-commerce is defined as the buying and selling of goods and services, as well as the transfer of money, assets, data, and information relating to commercial transactions conducted via the Internet and information and communication technologies. In its most fundamental form, e-commerce enables the purchase and sale of actual goods and services via the Internet, thereby facilitating commercial transactions for all types of businesses and consumers. Most consumers can influence sales and purchases from any location and at any time (Business encyclopedia, 2020).

After reviewing most related literature of determinants that impact on consumers' online purchase decision, it is clear that maximum researchers tried to measure the influence of several factors (web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups) on purchase intention, online intention, online hotel booking, online shopping intention, buying behavior, online buying decision, online shopping decision, purchase decisions, satisfaction and loyalty from the perspectives of all over the world, but this research has been tried to focus on examined the factors affecting consumers' online shopping decision during the COVID-19 pandemic in Bangladesh which remained as an unexplored field. Thus, this research provides an insights on the influence of web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups on consumers' online shopping decision during the COVID-19 pandemic in eminence Bangladeshi consumers shopping experience at this new platform which will support to policy makers and stakeholders to formulate better digital marketing strategies in Bangladesh, as well as to the research field in the contexts of COVID-19 pandemic.

The research paper is allocated into several sections. Initially, objectives of the study. Secondly, the literature review is provided based on a past study. Thirdly, the conceptual model and hypotheses development have been demonstrated. Fourthly, research methodologies that are applied to the current research are described. Fifthly, the paper is presented with the results and interpretations. Sixthly, the discussions, conclusion and implications section incorporate the consequences of present research and its linkups with the previous studies. At the end of the segment, the shortcomings and potential directions of the research are stated.

2. Objectives of the research

The broad objective of this research was to investigate the assessment of consumers' online shopping decision during the COVID-19 pandemic in the perspectives of Bangladesh. Specific objectives are: to assess the consumers behavior pattern towards online podium; to scrutinize the influences of COVID-19 pandemic on shopping decision; to examine the impact of web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups on shopping decision during the COVID-19 pandemic in the perspectives of Bangladesh.

3. Review of literature

3.1 Online shopping decision

Online shopping refers to the process by which a customer purchases a service or product over the Internet. The term "online shopping" refers to the act of purchasing goods and services from internet-based retailers. Consumers make purchases online while seated at their computers in the comfort of their own homes. Examined were the most acceptable Internet consumer behaviors, as well as their methods for locating, connecting, and estimating product data. The analysis of survey data and current market performance theory revealed a number of issues impacting a specific consumer category (Petrovic Dejan, 2010). According to Tian and Stewart (2007), electronic commerce encompasses not only the sale of goods and services, but also the retention of customers, the development of relationships with consumers and other businesses, and the transaction of business with them. Online shopping is the online sale of goods and services, and it is crucial for businesses to comprehend how consumers perceive online shopping. Scholars anticipate that e-commerce will soon replace conventional commerce in the near future (Heng & SH., 2003). Purchase intention measures the likelihood that a consumer will purchase a particular product. Most consumers are influenced by comments and ratings from online reviews when deciding to purchase a product, and they form a positive or negative opinion of the item. Mobile-enabled social media can be accessed anywhere, not only increasing access to information but also empowering people to create content and amplify their voices across the globe (Labrecque et al., 2013). Social media plays a crucial role in consumers sharing their opinions and product knowledge and, as a result, influencing other consumers (Kim et al., 2016). Currently, online shopping is growing in popularity worldwide, particularly among retailers and consumers. Online shopping offers advantages to both online retailers and consumers (Kuester & Sabine, 2012). Customer research has revealed that online customer surveys and the distribution of information or specific opinions have become extremely influential forms of communication. Through social media (Facebook, Snapchat, Twitter, and Instagram), online reviews have taken over business enterprises (Doha & Hwang, 2009; Lee et al., 2011; Jalilvand & Samiei, 2012). Various types of online reviews have improved the online shopping performance of consumers. Through social media, pleased consumers provide online reviews that influence other consumers' online purchasing decisions (Fu et al., 2020).

3.2 Web design

There are several aspects of a website's design, such as its functionality, user-friendliness, and internet performance, that contribute to its quality and enable consumers to book online effectively (Kucukusta et. al, 2015). According to Mona et al. (2013), the quality of a website is determined by several factors, including website security, website enjoyment, website information quality, website usability, and website service quality. The consumers' perception of a website is based on the aforementioned website characteristics, which attract them to the site and aid in satisfying their online shopping needs. According to Azureen (2014), the most remarkable aspect of a website is its design, which includes its visual appearance, navigation, and content. The usability of a website can aid in the effective promotion of products and services (Ali, 2016). Usability of a website contributes to its superiority and attracts more consumers to make online purchases (Pant, 2015). According to Bilgihan and Bujisic (2015), a well-functioning website helps to engage more customers, leads them to customer loyalty, and increases consumers' confidence in using the website to make a purchase.

3.3 Product factor

After observing a properly labeled product, consumers purchase greater quantities. Thus, labeling influences the shopping decisions of consumers, but other factors also play a role (Saeed et al., 2013). Each product must satisfy the needs of a specific consumer market (Goi, 2009). In a hyperinflationary economy, the seven Ps of marketing and consumer choice of major grocery store revealed that the product has a significant impact on consumer choice of major grocery store (Muzondo & Mutandwa, 2011). The majority of consumers visit convenience stores due to the availability of high-quality products, according to the findings (Andreti et al., 2013).

Product quality summarizes retailers' credibility and their influence on customers' in-store shopping decisions (Pan & Zinkhan, 2006). Product quality and features are the most prevalent determinants of shopper choice (Mashao & Sukdeo, 2018; Hossain & Khan, 2018). A product may be a good, service, person, location, idea, body of knowledge, or organization that attempts to fulfill the needs, wants, or desires of consumers. A product is of high quality if it is free from defects and flaws and can be identified by eight key characteristics. A few examples include product performance, features, product reliability, product confirmation, product longevity, serviceability, aesthetics, and perception of quality (Tjiptono, 2008). The effect of product attributes on cell phone consumer preferences. Variation in product characteristics influences customer preferences for mobile phones, according to the report. Consideration was given to color schemes, visible brand names, a variety of cell phone models, protective packaging, the level of safety consciousness, and the phone's appearance and design (Malasi, 2012). Product is one of the most challenging predictors; there are two expectations that can lead to increased shopping activity and, ultimately, repeat purchases: high product quality and customer satisfaction (Satit, 2012).

3.4 Payment method

E-payment systems play a significant role in retail shopping decisions because they facilitate global trade and commerce transactions, thereby enhancing customer loyalty. Consumers use the internet to gather product information, then submit a purchase request through an online shopping site, followed by an online payment or cash on delivery to complete the shopping process (Adebayo, et al., 2017). E-payment systems are a type of electronic payment system that enables users to conduct electronic transactions from any location on Earth (Humphrey et al., 1996). Since the introduction of information technology, which gave rise to the internet, the global monetary system has expanded to include the use of electronic money as legal tender in business transactions and trade. Recent advances in financial transaction technology have fueled an increase in the use of electronic-based payment instruments around the world (Princewell & Anuforo, 2013). According to the report, the card system's strength is its superiority and acceptability for storing and manipulating data and managing multiple applications on a single card (Olanipekun et al., 2013). The research demonstrated that small business internet shopping and payment decisions mirror those of consumers. In a number of ways, the Internet payment preferences of small businesses closely resemble those of consumers. As the annual revenue of a small business or the number of years it has been in operation grows, partialities begin to disappear (Gourville, J. & Soman, D. 1998). The superficial characteristics of internet shopping included incentive programs, site plan business deal fees, the transaction cost of the payment system, and interactivity in determining the intent to buy jewelry or accessories, clothing via the internet. Consumers shop online due to the convenience of product searches and the abundance of product and service-related data (Kim, E. & Kim, Y., 2004).

3.5 Promotional tools

Changes in technology occur in the blink of an eye, while values evolve over time. The purchasing habits of customers change rapidly, and the fortunes of various businesses vary. Online marketing is viewed as a new form of marketing and has given businesses new business opportunities. E-commerce and e-marketing indicate that internet marketing is simpler than traditional marketing, according to Dehkordi et al. (2012). (Dehkordi et al., 2012). Leena Jeenefe observed that there are a number of significant connections between purchasing behavior and the effects of media advertising (Jenefa, 2017). Reza Jalilvand and Samiei (2012) evaluate how advertisers utilize social media to increase the popularity of their products. The purpose of the promotional price promotion is to take advantage of the consumer's irrational state of mind, which prevents him or her from considering whether it is worthwhile to purchase additional items at that time. This also increases online purchasing behavior (Agyeman-Darbu, 2017). In some social media posts, consumers are informed that if they purchase two items, they will receive a third at no cost; this further contributes to the consumers' positive mood. Ibok (2013) discovered that young people feel more at ease selecting and purchasing products online than in physical stores. They spend less time and effort examining product information thanks to social media. Privacy, confidence, and security play a crucial role in social media networking sites. Due to the possibility of market segmentation, online advertising businesses use electronic marketing tools to develop marketing strategies, advertising theories, and customer purchasing behavior. According to Eyre et al. (2020), online advertising is comprised of contextual ads on examining banner ads, rich media ads, social network advertising, online classified advertising, and spam-like marketing emails. Advertising is defined as the definition of any personal meaning associated with product concepts and information presented in the media to establish a brand image (Kotler and Armstrong, 2010).

For many years, television, radio, newspapers, and magazines were the only advertising channels, but online advertising is now the primary force behind many advertising campaigns and initiatives (Kotler and Armstrong, 2010). Content is one of the most essential aspects of electronic advertising. It provides online users with written information about specific products or services. Customers are increasingly adopting online shopping due to their increasingly hectic lifestyles. As a developing nation, Bangladesh has unquestionably a large number of potential customers for online businesses. Bangladesh is one of the nations that makes the most use of social media. It is important to understand the causes of social media online purchasing behavior. According to Goldfarb and Tucker (2011), online advertising includes contextual banner ads, rich media ads, social network advertising, online classified advertising, and spam-like marketing emails. Advertising is defined as the definition of any personal meaning associated with product concepts and information presented in the media to establish a brand image (Kotler & Armstrong, 2010). The study discovered that television advertising (20.48%), website advertising (45.78%), family members (15.66%), and friends are the most influential channels through which consumers became acquainted with internet shopping (Mohammad, 2016). This study examines the impact of deal proneness on Indian consumers' online purchasing decisions. The results indicate that Indian consumers are unaffected by discounts, promotions, and other promotional tools utilized by online retailers. Consumers may not necessarily view promotions as a crucial characteristic when purchasing goods or services online (Rakesh & Khare, 2012). The long-term effect of coupons on brand value varies across deal categories, with non-monetary promotions having a more positive effect than financial promotions. Less deal-prone consumers' attitudes toward financial and non-financial promotions differ significantly from those of deal-prone consumers (Yi & Yoo, 2011). This investigation reveals the perceptions of consumers regarding gift promotions. The assessment of gift promotions is positive when both the general brand equity of the promoted product and the product's compatibility with the gift are high (Montaner et al., 2011).

3.6 Governmental factor

The government contributes to the expansion of the e-commerce platform and increases consumers' propensity to make online purchases (Hai & Kamal, 2015). Governments play a crucial role in the development and maintenance of e-commerce sites in developing nations. The government will protect online payments by establishing robust, universally accessible ICT infrastructures. Government funding for e-commerce can be a significant contributor to a nation's prosperity (Kabango & Asa, 2011). By enacting fiscal and tax policies, as well as guiding policies, exchange rate policies, and administrative support, the government will facilitate the expansion of e-commerce (Nelson & Soete, 1988). The government has committed to bolstering e-commerce websites (Licker, 2005). According to Eid (2011), the Saudi government aided in the promotion of local e-commerce sites, which was viewed as a crucial component of promoting online shopping in the country, and citizens must trust government actions. In order for online shopping to be a sustainable shopping trend in the future, governments and administrations must work toward achieving sustainability and the triple bottom line, which includes people, the planet, and profit (Elkington, 1997). All activities related to government goals for achieving sustainability necessitate a commitment from all members of society to care for and enhance the well-being of society. To encourage and even compel greater online concern, government policies must become more proactive and forward-looking (Dummett, 2006). Government funding has a positive effect on customers' perceptions of online shopping's convenience and their intentions to shop online. Government is one of the external contexts, so it has a variety of significant effects on industry (Hai & Kazmi, 2015). Government assistance includes fiscal and tax policy assistance, government procurement, financial and foreign exchange policies that benefit the industry, direct policy assistance, and administrative assistance. Government agencies are the most robust and obvious element of national innovation prowess (Nelson & Soete, 1988).

3.7 Social media

Social media plays a crucial role in influencing consumers' purchasing decisions. Consumers routinely checked online blogs for green advertisements. They provide feedback on the eco-friendly products via social media. Social media has revolutionized the advertising industry and encouraged a shift away from traditional advertising. It is agreed that social media is more advantageous. Intelligent and more robust than conventional advertising materials (Nufazil A., 2014). Aindrila, B. (2016) revealed that social media is a crucial factor that positively influences eco-friendly product purchasing decisions. Experts and academics are equally captivated by the burgeoning environmental consciousness, which is manifested primarily in consumer products. With the help of new communication tools such as social media, environmental concern has become widespread.

Thus, an increasing number of consumers are engaging in green shopping and consuming non-polluting eco-friendly products and services (Zahid et al., 2017). Social media has a significant impact on consumers' choice decisions, attitudes, perceptions, and shopping decisions from the pre-shopping information-gathering phase to the post-purchase decision phase (Williams & Cothrell, 2000). The role of social media in the decision-making process of consumers for complex purchases that are characterized by essential brand differences, high consumer involvement and risk, and are costly and infrequent. Utilization of social media influences consumers' satisfaction with the information they examine and the alternatives they consider, with satisfaction growing as consumers' progress through the purchase decision and post-purchase evaluation phases (Voramontri, D. & Klieb, L., xxxx). According to Mohamadian and Mohamareza (2012), social media is one of the most influential factors on consumers' purchasing decisions. Thus, the strong relationship between social media and the purchase of eco-friendly products. Mayfield (2008) explains that social media are online or electronic media that encourage online user participation, openness, preservation, community, and connections. It can be viewed as a means for consumers to become acquainted with green products, and thus it will increase green product awareness (Macdonald & Sharp, 2003). Mohammadian and Mohammadreza (2012) discovered a strong correlation between social media and the development of environmental consciousness.

3.8 Reference groups

Consumers indicate that they attempt to adopt the values, norms, attitudes, and beliefs of their reference groups as a guide for shopping decisions (Mowen & Minor, 2000). Family and friends are the most influential factors in a consumer's shopping decision-making process. Reference groups may influence the shopping decisions of consumers (Mohammad, 2016). Using social dilemma theory to identify differences between green and non-green buyers, the effects of reference group are identified to shed light on attitude-shopping decisions in biological consumerism (Gupta & Ogden, 2009). One of the many subliminal factors that can influence a consumer's decision regarding products used in public settings is the influence of social reference groups. The phenomenon influences consumers' preferences for particular brands or products and their purchase decisions. Every marketer strives to utilize subliminal elements that can strengthen brand associations and stimulate purchase. The paper evaluates the impact of three major reference group effects on the shopping decision: the informational effect, the utilitarian effect, and the value expressive effect (Reza & Valeecha, 2013). It has been demonstrated by marketing and consumer decision scholars that reference groups influence consumer choice, particularly for branded products (Ratner & Kahn, 2002). The reference group effect varies based on the group's characteristics or types. Differences in reference group influence exist between males and females, consumers with different educational backgrounds, consumers with different income levels, and younger and older individuals (Park & Lessig, 1977). People gather in a social setting and discuss their experiences with the products they have used, as well as their specific likes and dislikes, preferences, and product characteristics. Individuals purchase products or utilize services that they observe others purchasing or utilizing. A reference group is a person or group that significantly influences an individual's decision (Bearden & Etzel, 2011).

4. Conceptual model and hypotheses

In this research, there are seven independent variables (web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups) and one dependent variable (online shopping decision) have recognized. Based on the previous literatures and discussions, the conceptual model (Figure 1) and research hypotheses (from H₁ to H₇) have been developed.

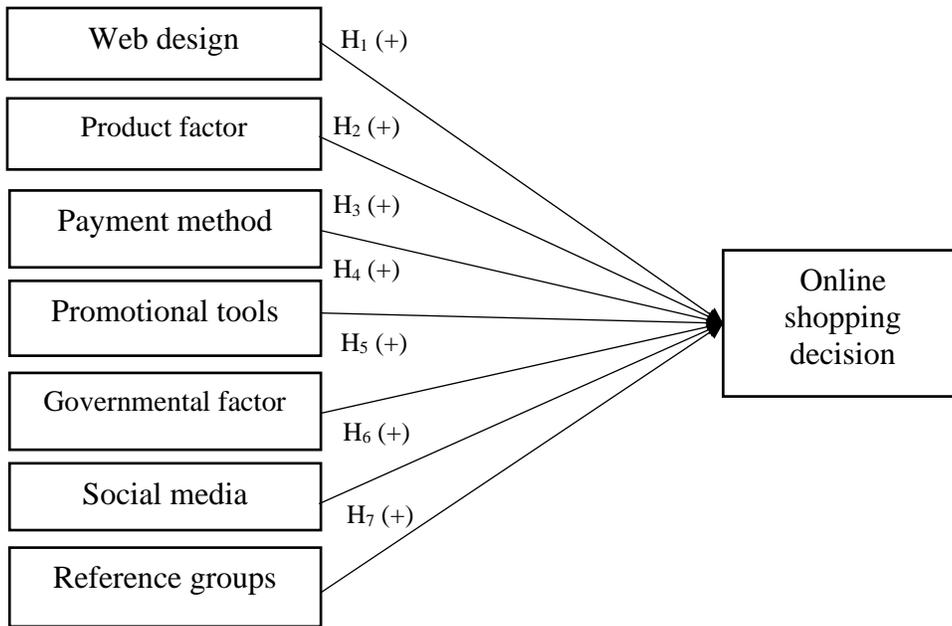


Figure 1. Research model

- H₁: Web design has a significant positive impact on online shopping decision.
- H₂: Product factor has a significant positive impact on online shopping decision.
- H₃: Payment method has a significant positive impact on online shopping decision.
- H₄: Promotional tools have a significant positive impact on online shopping decision.
- H₅: Governmental factor has a significant positive impact on online shopping decision.
- H₆: Social media has a significant positive impact on online shopping decision.
- H₇: Reference groups have a significant positive impact on online shopping decision.

5. Research methodology

5.1 Types of research design

In this research, consumers’ online shopping decision during COVID-19 pandemic was required to select in terms of prominent measured variables. Hence, an exploratory study was undertaken initially to get a basic understanding of the elements that influence Bangladeshi consumers’ shopping decision to participate in the electronic shopping platform, followed by a descriptive study.

5.2 Information Needs

The information required for the research is primarily primary in nature, and all data was gathered from primary sources using the online personal interview approach. The information is quantitative in nature. In contrast, we have produced a literature evaluation using secondary sources that provides insight into the stated goals.

5.3 Measurement instruments

The scale items for measuring the consumers’ online shopping decision during the COVID-19 pandemic were adopted from Hossain et al. (2022), Miah et al. (2022), Hossain et al. (2020), Hossain et al. (2019), Hossain et al. (2018), Siddique and Hossain (2018), Hossain and Khan (2018), Ganguly et al., (2010), and Sinjanakhom (2016)) where the items were found reliable and valid. Table 1 displays the latent constructs and their observed variables.

Table 1. Measurement instruments

<i>Constructs</i>	<i>Measured variables</i>	<i>Sources</i>
Web design	Information design	Hossain et al. (2022), Miah et al. (2022), Hossain et al. (2020), Hossain et al. (2019), Hossain et al. (2018a), Hossain et al. (2018b), Siddique and Hossain (2018), Hossain and Khan (2018), Ganguly et al. (2010), and Sinjanakhom (2016)
	Visual design	
	Navigation design	
Product factor	Quality of products	
	Variety of products	
	Branding products	
Payment method	Safe and secure payment	
	Suitable system	
	Convenient transaction	
Promotional tools	Advertising impact	
	Personal selling ad sales promotion	
	Mobile marketing	
Governmental factor	Lockdown	
	Close the store	
	Avoid social gathering	
Social media	Live streaming	
	Online reviews	
	Facebook, Twitter, Instagram, and Pinterest.	
Reference groups	Friends & colleagues have motivated	
	Pressure of family members to buy	
	Online shopping for celebrities	
Online shopping decision	Intent to purchase	
	Decide to buy through online	
	Satisfy to buy in online	

5.4 Scaling technique

To stimulate responses, a five-point Likert scale was employed in the study. Respondents have marked the point that best represents how they would characterize the object being appraised. On a five-point Likert scale ranging from strongly disagree to strongly agree, respondents are asked to rate their level of agreement or disagreement. A pretest of 15 respondents was conducted prior to the finalization of the questionnaire.

5.5 Questionnaire development

All of the questions are closed-ended. Closed-ended questions are easily analyzable, similar to other answers, and allow the respondent and interviewer to save time. However, because the study created an English version of the research questionnaire, it is easier for the study to omit open questions because non-English speakers may have difficulty translating and interpreting them. Indeed, closed-ended questions make it easier for academics to code and evaluate data.

5.6 Sampling technique and sample size

Non-probability sampling was utilized since it is less expensive and takes less time to create a sampling frame. Among the several methods of non-probability sampling, the purposive sampling technique has been employed because it is easily accessible, convenient and produces relatively cheap costs. It is important for the research to be able to acquire a sample of roughly 200 respondents.

5.7 Data collection

The research was collected data from 193 Bangladeshi consumers using an online personal interview survey approach and a standardized questionnaire with five-point Likert scales.

5.8 Data analysis

Data was gathered from actual Bangladeshi consumers who have already purchased the product through online platform and the data was encoded in SPSS 25.0 program for analysis. It was investigated using descriptive statistics, collinearity statistics, reliability statistics and multiple regression analysis.

6. Results and discussions

6.1 Descriptive statistics analysis

The mean and standard deviation scores were used to analyze all of the aspects. The factors were ranked according to their calculated mean values. As shown in Table 2, product received the highest mean score (M= 4.0466), while social media received the lowest mean score (M= 2.8912). All aspects generated moderate mean scores. It was recommended that among the all aspects had no larger variation.

Table 2. Descriptive statistics analysis

<i>Constructs</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Web design	193	1.00	5.00	3.5389	1.00509
Product factor	193	1.00	5.00	4.0466	1.09587
Payment method	193	1.00	5.00	3.1554	1.31366
Promotional tools	193	1.00	5.00	3.8497	.99646
Governmental factor	193	1.00	5.00	3.2591	1.14802
Social media	193	1.00	5.00	2.8912	1.28840
Reference groups	193	1.00	5.00	3.3472	1.16311

6.2 Multicollinearity test

Multicollinearity test is used to see whether the independent variables are highly correlated among themselves. The collinearity among the predictor constructs affects the estimated path coefficients (Hair et al., 2019). Variance inflation aspect above 5 and tolerance below 0.10 indicates a presence of inter predictor constructs collinearity (Hair et al., 2019). As illustrated in Table 3, the results of collinearity statistics showed that all VIF and tolerance values are within an acceptable range. It indicated that multicollinearity would not interfere with independent variables’ ability to interpret the outcome variable.

Table 3. Multicollinearity test

<i>Model</i>		<i>Collinearity Statistics</i>	
		<i>Tolerance</i>	<i>VIF</i>
1	Web design	.708	1.412
	Product factor	.905	1.105
	Payment method	.645	1.551
	Promotional tools	.601	1.665
	Governmental factor	.771	1.297
	Social media	.670	1.492
	Reference groups	.605	1.654

6.3 Reliability analysis test

Reliability analysis is used to assess the internal consistency of the constructs using Cronbach's coefficient alpha. If the Cronbach's alpha values exceed the criteria of 0.700, all constructs are reliable (Hair, et al., 2010). As shown in Table 4, the lowest value of Cronbach's alpha for the governmental factor is 0.700. All elements are greater than 0.700 (70 percent). As a result, the survey instrument is trustworthy in that it consistently measures all components and is devoid of random error

Table 4. Reliability analysis

<i>Constructs</i>	<i>Number of items</i>	<i>Cronbach's α</i>
Web design	3	0.712
Product factor	3	0.893
Payment method	3	0.723
Promotional tools	3	0.923
Governmental factor	3	0.700
Social media	3	0.751
Reference groups	3	0.710
Online shopping decision	3	0.912

6.4 Model summary

As shown in Table 5, the value of the correlation coefficient, $R = 0.573$, indicates that there is a moderate positive relationship between consumers online shopping decision and web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups. However, only 32.8 percent (R-square values of 0.328) of the variation in consumers' online shopping decision during the COVID-19 pandemic can be acknowledged with web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups. The adjusted R^2 is 0.303, indicating that the seven factors may account for 30.3 percent of the variance in consumers online shopping decision during the COVID-19 pandemic in the context of Bangladesh.

Table 5. Model Summary

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.573	.328	.303	.74006

6.5 ANOVA

As revealed in Table 6, multiple regression analysis is used to evaluate the relationship between web design, product factor, payment method, promotional tools, governmental factor, social media, and reference groups with online shopping decision during the COVID-19 pandemic. Table 6 lists the findings of seven hypotheses proposed. The F-statistics produced ($F = 12.900$) are significant at the 1% level (Sig. $F = 0.01$) with 7 and 185 degrees of freedom, supporting the model fitness.

Table 6. ANOVA

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	49.455	7	7.065	12.900	.000 ^b
	Residual	101.322	185	.548		
	Total	150.777	192			

6.6 Coefficients

The results of multiple regression analysis for H_1 as presented in Table 7 that web design as the major factor, which positively and significantly effects on online shopping decision during the COVID-19 pandemic ($\beta_1 = 0.186$; t value = 2.603; $p < 0.05$). H_1 is supported. Thus, web design has influenced on online shopping decision during the COVID-19 pandemic. The results for H_2 as showed that product factor as the significant factor, which positively and notably impacts on online shopping decision during the COVID-19 pandemic ($\beta_2 = 0.180$; t-value = 2.843; $p < 0.05$). H_2 is accepted. Hence, product factor has significantly impacted on online shopping decision during the COVID-19 pandemic. Next, H_4 substantiated that promotional tools as the key factor, which positively and significantly influence on online shopping decision during the COVID-19 pandemic ($\beta_4 = 0.164$; t-value = 2.114, $p < 0.05$). H_4 is supported. So, promotional tools have influenced on online shopping decision during the COVID-19 pandemic. Then, H_5 presented that governmental as the major factor, which positively and remarkably impacts on online shopping decision during the COVID-19 pandemic ($\beta_5 = 0.178$; t-value = 2.593; $p < 0.05$). H_5 is accepted. Therefore, governmental factor has impacted on online shopping decision during the COVID-19 pandemic.

After that, H₇ demonstrated that reference groups as the major factor, which positively and considerably impacts on online shopping decision during the COVID-19 pandemic ($\beta_7 = 0.173$; t-value = 2.237; $p < 0.05$). H₇ is accepted. As a result, reference groups has impacted on online shopping decision during the COVID-19 pandemic. Hence, the research demonstrated that five factors such as web design, product factor, promotional tools, governmental factor and reference groups had a positive and significant relationship with online shopping decision during the COVID-19 pandemic in the context of Bangladeshi consumers.

Table 7. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Results
		B	Std. Error	Beta			
1	(Constant)	.950	.320		2.967	.003	
	H ₁ : Web design	.164	.063	.186	2.603	.010	Significant
	H ₂ : Product factor	.146	.051	.180	2.843	.005	Significant
	H ₃ : Payment method	.024	.051	.035	.472	.638	Insignificant
	H ₄ : Promotional tools	.146	.069	.164	2.114	.036	Significant
	H ₅ : Governmental factor	.137	.053	.178	2.593	.010	Significant
	H ₆ : Social media	.059	.051	.085	1.158	.249	Insignificant
	H ₇ : Reference groups	.132	.059	.173	2.237	.026	Significant

The outcomes in Table 7 corroborated that payment method insignificantly impacts on online shopping decision during the COVID-19 pandemic ($\beta_3 = 0.035$; t-value = 0.472; $p > 0.05$). H₃ is not accepted. Thus, payment method has no effects on online shopping decision during the COVID-19 pandemic. Lastly, H₆ substantiated that social media insignificantly influences on online shopping decision during the COVID-19 pandemic ($\beta_6 = 0.085$; t-value = 1.158; $p > 0.05$). H₆ is not accepted. Therefore, social media has no impacts on online shopping decision during the COVID-19 pandemic. Hence, the research demonstrated that two factors such as payment method and social media had an insignificant association with online shopping decision during the COVID-19 pandemic in the perspective of Bangladeshi consumers.

7. Conclusions and implications

This research has been conducted with an objective to examine the assessment of consumers’ online shopping decision during COVID-19 pandemic in the context of Bangladesh. Different online shopping is important tools to guide the Bangladeshi consumers’ online shopping decision. This research was studied the impact of web design, product factor, payment method, promotional tools, governmental factor, social media and reference groups on online shopping decision during the COVID-19 pandemic in the perspective of Bangladesh. From the results of regression analysis, this research is demonstrated that web design, product factor, promotional tools, governmental factor and reference groups had a positive and significant relationship with online shopping decision during the COVID-19 pandemic in the context of Bangladeshi consumers. On the other hand, the research revealed that another two factors such as payment method and social media had an insignificant relationship with online shopping decision during the COVID-19 pandemic in the context of Bangladeshi consumers. The results of this research can be beneficial for both investigators and practitioners. For scholars, it provides approaches for understanding the online shopping decision patterns, level, and their relative significance. Alone with literature for future research, this study indicates ways to find out more profound factors which affect online shopping decision during the COVID-19 pandemic in the context of Bangladeshi consumers. Moreover, this research provides practical guidance and pertinent recommendations to the business people and marketing experts to promote the strategies for increasing the online shopping decision during the COVID-19 pandemic as digital marketing issues are opportunities to generate consumers demand in the context of Bangladesh. The results of the research will be applied by online based organizations, government organizations, commercial organizations, public institutions, private companies, researchers, and policymakers to inspire retailers’ involvement in online business activities during COVID-19 pandemic in the context of Bangladesh.

8. Limitations and further research

This research is restricted in Bangladesh only, and the result may not apply to other places. This data may not be the real representative of overall Bangladeshi online consumers view due to sample size and sample area. Further research is instructed to develop the generalizability of the sampling by extending the sample size. This research is found few effects of the independent variables. Thus, there may be some other variable which may impact on online shopping decision during the COVID-19 pandemic in the perspective of Bangladeshi consumers. Those factors are left for future research.

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