Online Consumer Behavior in Bangladesh

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DECLARATION

I hereby declare that this thesis entitled **ONLINE CONSUMER BEHAVIOR IN BANGLADESH** is the outcome of my own original research carried out under the supervision of my supervisor,Professor **Dr. HARIPADA BHATTACHARJEE.**This thesis is being submitted to the University of Dhaka in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy.

The work presented in this thesis has not been submitted previously, in whole or in part, for any degree or diploma at any other university or institution. All sources of information and materials used have been properly acknowledged.

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Sincerely,

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CERTIFICATE OF THE SUPERVISOR

This is to certify that the thesis entitled **“ONLINE CONSUMER BEHAVIOR IN BANGLADESH”**, submitted by Ali Mohammad Kowsar, was prepared under my supervision and is submitted to the University of Dhaka in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

The thesis has not been submitted, either in whole or in part, for any degree or academic qualification at any other university or institution.

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DEDICATION

This thesis is dedicated to my parents and family for their lifelong sacrifices and unconditional support. It is dedicated with deep gratitude to my wife, Saera Bintey Nur, for her patience, understanding, and constant encouragement, and to my children, Sabika Bintey Kowsar and Mehmet Bin Kowsar, whose love and presence gave meaning and motivation to this long academic journey. This achievement belongs to all of them.

ABSTRACT

The aim of the study thus is to understand the main factors that would influence online consumer behavior in the Bangladesh market which is in a phase of tremendous digital explosion due to growing impact of globalization, technology and growing internet connectivity. Following the development of e-commerce as one of the fundamental elements of contemporary retail strategy, the motivation, preferences, and decision-making patterns of online consumers have emerged as the key concern of local business people and multinational corporations alike. The study includes a mixed-method design: large surveys will be combined with in-depth interviews in order to achieve overall picture of factors which affect online shopping adoption. The research examines the influence of the factors related to demographics, cultural norms, social interactions, psychological motivations, internet use and history of use, and the previous experience of online store, as well as the operational factors to include payment security, privacy protection, trust to the internet vendors, transparency of information, and convenience of navigation by websites. The results indicate that purchase intentions are augmented by convenience, time efficiency, the variety of products, and personalized offers to a very large extent as the perceived risks, the untrusting nature, and the delivery aspect prevent the adoption. Digital literacy and the level of education also prove to be extremely important moderators allowing consumers to make more confident and informed purchase decisions. Moreover, brand popularity and ease of payment options play a crucial role in developing purchase preferences, because of the social influence. Findings also reveal that the young consumers have greater activity in the e-commerce sites than the old users though the latter is more concerned with the issue of frauds and authenticity of products. The paper is a novel contribution as it has offered a context-specific model of the behavior of online shopping within a Bangladesh context by incorporating technology-related and socio-cultural factors. The implications of the study go beyond the parameters of marketing strategy, platform design, and policy development, and can be used when it comes to improving customer satisfaction, trust-related maintaining, and competitiveness in a highly dynamic digital economy. Finally, the results provide support of the fact that sustainable development of the online retail market in Bangladesh requires constant innovation, consumer education, and ethical conduct of business.

Keywords: Online Consumer Behavior, E-commerce Adoption, Bangladesh Market, Digital Literacy, Payment Security, Socio-cultural Factors, Customer Trust, Purchase Intention.

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CHAPTER ONE

CHAPTER 1: INTRODUCTION

In this introductory chapter, the author is providing general view of the research topic by structuring the background and background ideas of online consumer activity. It observes rapidity of e-commerce growth and the dynamic parameters that direct online shopping within the country of Bangladesh. The chapter also has the overview of leading online shopping businesses, as well as the SWOT analysis in order to provide the context of the competitive environment. In addition, it outlines the research problem and emphasizes on the importance of the study in increasing knowledge on the aspect of digital consumer behavior. Lastly, the chapter gives an outline of thesis detailing the purpose and the contents of each of the following sections.

1.1 Study background

Against this backdrop of a rapidly digitizing global society, an understanding of online consumer behavior is readily invaluable to business operations and commercial promoters interested in tapping into the new e-commerce phenomenon in Bangladesh. Markets around the world are redesigned globally by technology thus affecting the consumer habit that poses opportunities and challenges to the retail enterprises.

1.1.1 Increase of Internet Commerce (E- Commerce)

Modern Internet technology has swept the world of business by integrating technology with fresh ways of marketing thus creating electronic commerce (e-commerce) which is a strong tool of business expansion in terms of reaching a new group of customers and operating in expanded scales. E-commerce is the purchasing and selling of products and services in electronic mediums with the help of hardware, software, networking, technologies where sellers and consumers can reach each other without any hindrances (Change, Cheung & Lai, 2004). Its uses are far reaching to the extent of information retrieval, making reservation services, making digital payment, entertainment, and others (Harn et al., 2006; Yang & Lester, 2004). The convergence of the application of technology and consumer behavior has radically modified the manner in which individuals are involved in relations to products by shifting the decision-making process to a more complicated and multilateral process. Modern consumers have become knowledgeable and more discriminating through their enhanced income and lifestyles. They expect not only the quality of their products brought into the world but also the reliability of the brands, their perception of value, and the personalization of experiences (Darshan and Teja, 2019; RK, Jannat, and Ali, 2016). Perhaps, most notably, the digital tool has transformed product evaluation and selection; by extending past facilitation and into preferences and sometimes directly into choice (Melumad et al., 2020), including screening and filtering of products, and recommending specific products and brands (Melumad et al., 2020). Smartphones, wearable items, voice assistants, and AI-assisted recommendation engines are all forms of digital tools (Melumad et al., 2020).

However the increasing use of technology means that there is an emerging paradox in that the prospect of personalization, automation is convenient and feels we humans have some form of control over it; there is also a chance that it is in fact restricting consumer freedom. As an illustration, recommendation algorithms have the ability to guide decisions through suggested goods based on an individual previous browsing data, generating an illusion of free choice whilst influencing decisions secretly towards an end - a process known as manipulation perceived as autonomy-enhancing (Andre et al., 2017; Dholakia et al., 2020). Such complexities are further complicated by the emergence of hyper digital market places. The hyper abundance of options, coupled with more sophisticated predictive tools, can blur the difference between real consumer desire and those impacted by algorithms. Besides, self-reliant technologies such as smart assistants decrease mental strain on decision-making yet might unintentionally decrease consumers in a feeling of control over judgments (Council, 2014; Andre et al., 2017).

These challenges notwithstanding, technology and consumer agency are constructively interacting in terms of providing innovation opportunities. It is crucial to understand this relationship comprehensively in order to come up with strategies that allow creating the right balance between convenience and consumer empowerment. Close cooperation between the marketers, researchers, and policymakers is needed to develop clear, ethical guides that stimulate both informed and sustainable consumption (Melumad et al., 2020). Overall, the world of technology has radically changed the consumer behavior introducing not only opportunities to experience more individuality but also problems with autonomy. The way forward in this moving sand should be through a middle ground that advocates not only transparency but also ethical application of technology where consumers are not always the unwitting victims of a digital economy.

1.1.2 Internet Consumer Behavior

The online shopping behavior has very distinct differences with traditional shopping because of the peculiar nature of digital products. Online shopping has become more and more popular due to the convenience associated with searching, asking, comparing, and buying products at any place. Customers also regularly purchase numerous goods online, which include books, furniture, electric appliances, and home products. Using more than 10,000 consumers who responded online in 30 states in India across more than 50 product categories, BCG Center for Customer Insights carried out a study on the online behaviors. This study identified various online practices depending on factors like age, gender, occupation, rural-urban residence, income and status in the society. As an example, most Indian consumers use the internet to communicate socially, obtain updated entertainment information, and to browse casually; eight main online activities have been classified.

1.1.2.1 Online Shopping Background

Online shopping entails searching, assessing, and buying services or products via the internet-based services. These developments led to the emergence of the first commercial online stores in the early 1990s where the use of personal computers and access to the internet had increased. Online shopping involves either business to consumer (B2C) or business to business (B2B) shopping and its terms include e-store, virtual store, and web shop. The offerings are displayed in the form of texts, graphics, and multimedia files and displayed to clients, whereas customers can make a purchase via using the shopping cart and by using such electronic payment means as debit and credit cards. There are physical goods to customer doorstep and there are digital commodities like software, music and e-books that can be downloaded instantly. These factors add to online shopping popularity such as the possibility to compare prices, have an extensive choice and the ability to shop whenever desired, and consideration of alternatives. Moreover, numerous websites provide promotions and refund policies to make sure that any issues are solved, like abortion or spoiled goods. Studies conducted by Nagar and Bhatt identify models to consider during service quality assessment in digital banking with consideration to customer satisfaction aspects applied on online business.

1.2. Forms of Online Shopping

Online shopping can be differentiated according to the type of market relationships involved, i.e., who sells to whom, the technology involved, particularly peer-to-peer (P2P), mobile commerce (m-commerce), etc.

1.2.1 Infrastructure of Online Shopping

The established business is based on warehouses, production cycles, and retailers as order points that are regulated by taxation legislation. On the contrary, online shopping is conducted in real time and meets the demand by delivery within short timelines. Successful supply chain management is thus at the heart of e-commerce.

1.2.2 Online Shopping Stakeholders

The online business platforms remain on the rise as more established companies with traditional businesses adopt e-commerce business. The main stakeholders will be the providers of logistics, the call centers, the intermediaries, the financiers, the social media platform providers, and the individuals who provide the internet services. These are the actors who work in concert so that the flow and delivery of products are smooth with emphasis being placed on the satisfaction of customers. Research within the Bangladesh context provides important findings into reasons of online shopping such as socio-economic and demographic characteristics of online shoppers (Kamruzzaman et al., 2020; Khatun et al., 2020; Ali, Ahmed & Absar, 2020; Sultana & Akter, 2021). One interesting discovery is the cash-on-delivery preference by Bangladeshi customers citing the insecurity on cyberspace and online fraud. Moreover, the online shopping population is likely to be more young, male, and urban especially the students and working-level professionals. The image enhancement of the online marketplaces is promoted by reviews about their product, brand recognition and by the comfort of dispensing with the inconveniences of conventional shopping, and these factors are enhanced with the COVID-19 pandemic. Another trend that is significant in the economic inclusion and poverty alleviation in Bangladesh is the emergence of women-centered e-commerce businesses aided by the use of social media. Nevertheless, the development of cybercrime and security threats relates to the problem making consumers trust the digital marketplace.

1.3 Online Shopping History

The invention of online shopping was done in 1979 by Michael Aldrich where he created a real-time buying system to connect adjustable televisions to telephone lines and computers. Online bookstores emerged in the early 1990s and Amazon was founded in 1994 and the company became a pioneer of the e-commerce. Earlier online purchases date back further, to as early as 1972 in the sale of marijuana between students at both Stanford and MIT. In the meantime, the digital revolution continues to reshape commerce at a global level dramatically with the total global transaction volume of e-commerce amounting to trillion dollars in the year 2017 and is expected to rise massively ever since (Verhoef et al., 2019). Some concepts that have promoted this development are big data analytics, artificial intelligence, blockchain techs, and the fact that consumers increasingly want convenient and personalized shopping experiences. Nevertheless, the G20 countries have unequal access to e-commerce initiatives because they have different economic and technological dimensions. COVID-19 pandemic expedited the switch to online and mobile shopping and created both threats and opportunities to the approaching businesses that were trying hard to cope with the ambiance of the modern digital world. In addition, the international hike in e-commerce affects the international trade as it enables the trade across national boundaries, but it still requires companies to experience various regulation and infrastructural challenges in order to be viable abroad.

1.4 E-commerce Porter Five Forces Model

The e-commerce industry has been growing at lightning speed due to increasing economic activity around the globe and the trend in shifting technological innovations not only in areas such as the US and the Asia Pacific. The market leaders, Amazon, Alibaba, eBay, Flipkart, Walmart, Costco, among others have invested a lot in technology to provide customized shopping. Granted, the entry of mobile technology has also contributed to the growth in market revenues and competition increased. The competitor rivalry, the threat of substitutes and entry, and the bargaining power of the suppliers and customers are some of the factors used to examine the attractiveness of the industry through the Five Forces model developed by Porter. This review assists in the realization of any factors that cause the competitive rhythm within the e-commerce sector.

1.5 Statement of the Problem

The past ten years have seen technological changes being adopted by most businesses with majority of these businesses shifting their operations online as telecommunication and broadband connectivity have improved. The growing competition online has necessitated online shopping as a major means of improving the performance of marketing initiatives by companies and retailers, who come up with new techniques to win over virtual customers. As opposed to offline shops, the online stores make use of descriptive text, pictures, and multimedia to depict products. There are diverse online shopper, including risk-takers and impatient customers who experience delay in delivery. The online shopping is due to its benefits: availability round the clock, the low cost, discounts, and convenience. Therefore, online consumer behavior has received more attention with regards to research. Companies with successful businesses focus on meeting the needs of their customers since such customers are likely to purchase again. Electronic shopping: Online shopping is fast taking shape in Bangladesh with the increase of access to internet, however, the conventional shopping behavior still plays a dominant role. E-commerce is likely to be furthered by modernization and busy lifestyles.

1.6 Significance of the Study

Technological advancements and globalization have made online shopping a competent and easy to reach marketplace. Products and services used by companies resort to measures such as high discounts, advertisements and offers which have a direct effect of the consumer behavior. In this research paper, the researcher has delved into aspects influencing online buying decision including the credibility of the websites used, payment protection, and availability of information and the experience of the user in context of demographic, cultural, social, motivational, and habitual factors. The study also establishes the obstacles of the adoption and provides suggestions that enhance the marketing approaches in the e-commerce business environment of Bangladesh.

1.7 Research Questions

This Thesis will be examining the following questions:

I. What are the socio-demographic determinants in online consumer buying behavior?

II. Which are the major issues that the shoppers have in the e-commerce transaction?

III. What are the effects of perceived benefits, risks, aspects of consumer traits, trust and environment of the place of purchase on online purchasing behavior?

1.8 Research Objectives:

I. To examine factors those have a social-demographic influence on online buying behavior.

II. Identify and analysis the existing critical issues and concerns met by the shoppers doing e-commerce transactions.

III. To determine the influence of perceived benefits, perceived risks, consumer characteristic, the level of trust and the environment of the online shopping on the purchase decision made by consumers.

1.9 Scope of the Study

The study takes into consideration the urban Dhaka internet urban users who are referred to as techno savvy early adopters of online shopping. This generation offers a vibrant environment to study the e-commerce practices. The attitudinal, preferred and challenge questionnaires were sent to the respondents in an attempt to understand the critical factors affecting online shopping choices comprehensively.

1.10 Thesis Structure

The following are the chapters of the thesis:

Chapter 1: Introduction-background, problem statement, research questions, scope, objectives and significance.

Chapter 2: Literature Review-what exists so far in literature and theory of consumer behavior and online shopping.

Chapter 3: Research Methodology-method, sampling, collection and analysis of data.

Chapter 4: Data analysis and results-reporting and discussion of empirical results.

Chapter 5: Findings, Recommendations, and conclusion- summary of results implications and, future research directions.

1.11 Definitions of Key Terms

E-Commerce

The online market where goods and services are purchased and sold through the internet where transactions are done in a secure manner with information being transferred (Turban, 2000).

Consumer Behavior

The process of psychological and decision making by consumers during search, evaluation, buying and disposing of goods or services (Solomon, 2004).

Online shopping

This is a type of e-commerce where consumers can buy goods or services via internet platforms anywhere, at any time, but with digital methods of payments of different choices (Michael Aldrich, 1980).

CHAPTER TWO

CHAPTER 2: LITERATURE REVIEW

The chapter offers an integrated critical literature review on the research on consumer purchasing behavior and online shopping. It provides a review of the central concepts and issues related to this field and recognition and identification of the gaps of current research that this study attempts to fill. By the integrating prior research, the chapter develops a theoretical underpinning for investigating the different elements impacting on consumer behavior in the on line shopping environment.

2.1 Online versus Offline Shopping

In conventional retail shop, the physical context surrounding the actual shop also influences the consumers in terms of perceptions and general satisfaction in their shopping experience (Sherman et al., 1997). On the contrary, online shopping situations expose subjects to a smaller set of sensory and experiential cues, and this influences consumer involvement in a different way. This is primarily because e-commerce lacks the sense of physical and biological input that consumers may not associate with unless they are assured of high levels of experiential richness; otherwise, consumers tend to fear shopping online (Lunt, 2000; Dennis et al., 2007). According to studies conducted by Childers et al. (2001) and Demangeot and Broderick (2006), adding interactivity into the sites of available e-commerce websites may improve the online experience of consumers and further encourage them to be more interactive. Nevertheless, Lee and Turban (2001) warn about websites that have too many links to the outside sources or make the consumers navigate all the time because it is likely to consider them less reliable and therefore not to visit them. The existence of consumer with a higher online purchase behavior is observed among those who place emphasis on trust and seek refunds, returns, and report on billing problems most of the time (Monsuw (kappa tountsaw\ installoeteen[a] 2004). Moreover, Dellaert and Kahn (1999) observed that internet customers are known to be so impatient that sometimes they avoid making purchases by online companies that do not respond within eight seconds, implying that businesses that are able to respond promptly have greater chances of making more sales. In addition to offering similar deals as the physical spaces, many online retailers send consumers contents with related information about products, prices and delivery services, a detail that puts them at an advantage because they enable the consumer to view them in their entirety and make an informed purchase (Chen & Chang, 2003). On the same note, the study conducted by Nagar and Bhatt on the issue of digital banking services on customer satisfaction has highlighted the importance of technology on the determination of customer satisfaction, involving the aptitude of describing the level of satisfaction. The effect of technological innovations on the consumer behavior has been increasingly studied in the literature in retail and marketing (Inman and Nikolova, 2017; Lau and Lee, 2017; Melumad et al., 2020). The literature cites the impact made by the new digital tools (e.g., e-commerce platforms, mobile applications, and virtual or augmented reality), which have changed the shopping experience (O Cass and Fenech, 2003; Grewal et al., 2021; Grewal, Roggeveen and Nordfalt, 2017). The above technologies play a greater role in influencing the decision-making process among the consumers since they are assisted in curating, evaluating and making efficient purchase decisions (Grewal, Roggeveen, and Nordfalt, 2017; Melumad et al., 2020). The term technology-augmented choice also helps in interpreting the extent to which digital innovations have emerged as part of every aspect of consumers' decision-making processes, allowing on the one hand having even more personalized decisions, and on the other hand they have compromised such choices to some degree (Grewal et al., 2021; Melumad et al., 2020). They are reacting by retailers who are adopting unique strategies and business models to draw consumers through interactive digital technologies often labelled as tech-gagement in fashion retailing which goes further to enhance customer engagement and loyalty. Moreover, the COVID-19 pandemic has boosted the pace of using digital retail channels: social distancing measures have grown the necessity in e-commerce and since a contactless shopping experience is possible when retailing via the internet. The technological changes are all-encompassing and transformational in the retail marketplaces, economical nature of the industry, real estate use, and button-bottom transformation of consumer location and mode of shopping (Grewal et al., 2021; Melumad et al., 2020; Colombi, Kim, and Wyatt, 2018; Shankar et al., 2020). In this fast-paced environment, retailers have to constantly evolve and embrace the available technologies in order to create an ideal consumer experience, increase consumer satisfaction, and facilitate the decision-making process in ever-growing digital markets.

2.2 Reasons for Shopping Online

These online stores satisfy the demands and wants of a large amount of consumers who want simple access to information regarding products such as price, quality, availability, and specifications. With this abundance of information, consumers can now conduct purchases much more informed and reasonable choices of purchase decisions than that in traditional retail settings (Grewal et al., 2002; Brown et al., 2003). The advent of electronic commerce (e-commerce) has transformed the conventional way of buying and selling commodities through its ability to exchange goods and services and information via a digital network like the internet (Kumra & Singh, 2018). This new model of commerce has some promising benefits to the consumer and the business such as the high level of convenience among consumers and the businesses, the elevation of the choices of products and the enhancement of transparency of price (Lowry et al., 1951). With the use of the internet in all aspects of life becoming a common occurrence, e-commerce and in particular the, business-to-consumer (B2C) business has become popular. However, the rate and scope of these growths varies extensively in various regions; most of the adopted countries are the developed ones compared to the developing ones. The other most crucial aspect that led to consumer involvement in online shopping is trust. People should be assured that their personal as well as financial information are safe on internet before purchasing items online (Lowry et al., 1951). Research has already revealed the importance of trust as a major factor dictating the decisions of consumers in undertaking transactions in e-commerce. Issues regarding privacy have become so apparent with the growth of e-commerce. Businessmen may use security systems such as encryption and secure payment gateways to ensure the safety of clients but it is also the role of consumers to take care of privacy. Fears about security are not the only factors associated with e-commerce resistance however, no one can have confidence in the reliability of online vendors, which is another source of resistance. In order to continue the growth of e-commerce, it is essential that businesses are in a position to build and maintain the trust of consumers in the online transactional process (Forman, 2008). Elements of Technology interaction are also inherent when one decides to engage in e-commerce platforms and these exposures can be dangerous since it may result in unauthorized access, fraud through use of credit cards and theft of identity. As a result, the success of online commerce is strictly correlated to the extent to which the businesses safeguard the sensitive personal information and sustain the privacy tolerance (Lowry et al., 1951; Thaw, Mahmood & Dominic, 2009; Forman, 2008). Companies that seek to embrace the full potential of e-commerce must realize the diversity of the factors that determine whether consumers will make use of the Internet to conduct shopping. It is clear that trust plays a pivotal role in this area, and it has also gained considerable recognition both academically and practically with numerous studies reaffirming its significance in encouraging customers to use online retailing shops (Forman, 2008; Thaw, Mahmood & Dominic, 2009). Online shopping also provides greater privacy and convenience especially when buying intimate products a fact that may cause discomfort to consumers when shopping in brick-and-mortar stores (Chavda & Virendra, 2017; Monsuwé et al., 2004). It also suits those individuals who do not like too crowded shopping conditions. Younger consumers are more likely to be more sensitive to image and fashion trends than other groups of consumers and require higher levels of service quality because they regard shopping as a pleasant and entertaining task. More convenient websites that are made aesthetically also augment the online shopping experience, creating increased customer satisfaction (Chavda & Virendra, 2017; Strategic Direction, 2012).

2.3 Online Shopping Evaluation

The online retail platforms in Bangladesh are growing at a fast pace as they are being driven by the technological innovation that allows companies to gather, store, examine and distribute extensive data on their viewers on the websites. With such data, online retailers can determine the set of factors that might affect consumer purchasing behavior and change their strategies as the result. The knowledge of demographic data, income, and expendable habits lays the groundwork to offer products and advertising customized to it. The causes of the increased attraction of online shopping were examined previously. Barnes (2013) has emphasized one of its greatest strengths, which is the convenience, which was confirmed by other researchers Chaing and Dholakia (2003), Monsuw (2004), and Poulter (2013). The ease in comparinginess of products and prices is another key driver as observed by Monsuw e et al., (2004) and Palmer (2013) and a report by Chaing and David and Dholakia (2003) noted that close to 85 percent of consumers do online price comparison. Nevertheless, the estimates of such comparisons do not necessarily result in an online purchase since there are still certain consumers who make offline decisions. Poulter (2013) also found that the factors resulting in the e-commerce popularity included the avoidance of long queues, utilizing the prevalence of internet connection, spending less time on checkout and delivery. Chaing and Dholakia (2003) also noted that the on-line customers enjoy the convenience of being able to shop anywhere and at any time even multitasking at home, as well as have a feeling of satisfaction after they receive their parcels (Eckler, 2013). Poulter (2013) documents that online purchase exceeding 46 percent are conducted between 7 p.m. and 1 a.m., which is an indicator of the attractiveness of always being available. But along with these advantages are some problems that still exist. According to Rackspace (2013), more than 55 percent of the respondents said that they were dissatisfied with online shopping and hence returned to in-person shopping because of inconvenient payment methods. Use of poor payment channels and possible security issues during payment could result into customers leaving their shopping carts (Adeshara, 2003). Exorbitant product prices, shipping and delivery cost are other factors not encouraging purchase (Palmer, 2013). Moreover, lack of product information, exposure to lacking security systems, and access to payment are some more barriers that will discourage the buyer (Adeshara, 2013). An important attribute in future behavior is the consumer experiences. Shim et al. (2004) have determined the positive past experiences lead to a higher probability of initiating repeat purchases and by contrast negative encounters in most cases influence consumers towards alternative ways of carrying out purchases.

2.4 Characteristics of Online Consumers

According to Palumbo and Herbig (1998), consumers of online technology in the later part of the 20th century were mostly young consumers with technology skills, professionally employed, but with higher levels of income and education as compared to their counterparts among offline consumers. These people tend to spend on time more than money and this is due to the fact that they are members of working households; whether they are in the dual income families or the single parent family's time is a major consideration. According to Burke (1997), online marketers find such consumers very attractive because of their purchasing capability. It is also true that personality, and demographic characteristics continue to be considered important aspects in consumer research, as indicated by Kwak et al. (2002). Although it has many positive effects, the social media may also impose negative effects on the younger generations, as it was discovered in the empirical analysis conducted by Bhatt and Ajmera (2018) on the antagonistic role of the social media in the lives of the younger generations. The purchasing power and the level of income tend to dictate the shifts between buying through traditional locations and buying online (Co (mor), 2000; Hernandez et al., 2011). The number and magnitude of use of the internet is significant as well. Well-educated, technically-skilled, highly active on the internet and consumers who hold favorable sentiments of web environment favor online buying (Sisk, 2000; Hoffman & Novak, 1996; Liao & Cheung, 2001). Emmanouilides and Hammond (2000) also note that most active users are individuals who spend a lot of time on the Internet at various destinations. Bellmen et al. (1999) claim that the essays demographic factors are sufficient to give a plausible forecast on online purchasing behavior. Rather, risk propensity seems to exert an even more influential effect on an individual engagement in online shopping. On the other hand, consumers who are more worried about the protection of their privacy and safety will make less purchases online (Kwaek et al., 2002; Miyazaki & Fernandez, 2001). Well informed consumers tend to have more influence in the buying activity because they are the ones to decide on the specific product right at the moment of the initial search of the product up to the point when they have made the transaction (Rao et al., 1998).

2.5 Concept of Consumer Behavior

Behavior can be described as any measurable and observable action that is executed by a human being or animal either on a regular basis, in a random manner, impulsively or methodically. These activities usually have hidden motives that seek to achieve a certain purpose. Each behavioral action can be seen, recorded, analyzed and interpreted as per the requirements of a research or an enquiry. Behavior in the context of consumption is a mix of mental, emotional and physical processes that take place in identifying the needs, preferences, decision making to buy, use the products or services and eventually discarding them. These are processes done to gratify wants, needs or desires discussed as an individual. Consumer behavior is considered a specific area of human behavior in general, and it is predetermined by a variety of both biological, psychological and sociological factors. Biological needs are associated with consumption behavior through food, water, and rest which have direct effects on the consumption decisions, whereas psychological needs like self-esteem, feeling of security, social standing, seeking societal approval are the other needs which also have a major influence on consumer preferences and behavior.

2.5.1 Definitions of Consumer Behavior

Scholars have defined the concept of consumer behavior in different ways over the past decades as it is perceived to be multidimensional. According to Kotler and Armstrong (2004), consumer behavior is the activities that people or households engage in whenever they are buying goods or services to be used personally. In its elaboration, Belch and Belch (1985) describe the concept as the collection of activities and decision making processes through which people undertake in search of, choice, evaluation, purchase, use and eventual disposal of products in pursuit of their needs, wants and desires. On the same note, Schiffman and Kanuk (1978) stress on the involvement of emotions, attitudes, and actions that consumers adopt when in the process of searching, buying, consuming, and evaluating products, services or ideas that satisfy their needs, pointing out that the appraisal stage can result in subsequent purchases. In a way, Solomon (1996) presents consumer behaviour in terms of steps that individuals or groups follow, including the need identification, option assessment, purchasing, use, and disposal of products. On the other hand, according to Willkie (1986), consumer behavior is described as a set of mental and emotional actions that entails the selection of goods or services, the process to purchase and use such goods or services so that both material and non-material wants and needs can be satisfied. In these definitions, one can find similarities as consumer behavior does not include only the act of purchase but pre-purchase assessment, post-purchase experiences, the balancing of psychological, emotional and social factors in the decision-making process.

2.5.2 Importance of Studying Consumer Behavior

Consumer behavior has now become a crucial aspect of contemporary marketing since it gives useful information on how consumers can make their purchases. The consumer market has been and will remain huge, and this is due to the technology and innovative products as well as the constantly increasing variety of options. With the changing nature of consumer tastes and preferences, old assumptions of marketing like the assumption that advertising is the sole means of creating a sales stimulus are no longer satisfactory. The markets today are thoroughly diversified and have different purchasing patterns and needs that vary. It is essential that businesses take a closer look at trends in consumer attitudes of changed outlook, fickleness and erratic purchasing patterns as changing consumer attitudes tend to portray different things at different times. During marketing in the e- commerce world, online consumer behavior which is an aspect that encapsulates the tendencies, motivations as well as decision making of internet shoppers is a critical aspect that helps in determining overall marketing strategies, as well as enhancing performance overall. A number of aspects of online consumer behavior have special importance: Research and Comparison: The modern consumer does a lot of seeking information prior to purchase. They use more than one platform to compare the products, read reviews and solicit peer recommendation and often use the digital tools to determine the best value as well as quality. Influence of Reviews and Ratings: User-generated content, especially, product reviewing and rating, is influential to get a purchase. Good reviews will strengthen consumer confidence and the bad one may scare the prospective customers. Consumers find the opinion of peers more reliable, as opposed to advertisement produced by a brand. Earning of Mobile Shopping: The wide spread of smartphones has reinvented the way people shop, people opting to use sites and apps that are mobile friendly. Companies will have to react to this by making sure there is a smooth mobile experience across product research, browsing, and purchase. Customized Experiences: Modern day consumers want to experience more customized interactions. Through the use and exploitation of customer data, companies provide personalized recommendations, specialized ads, and personalized promotion offers, boosting the engagement and conversion levels. Convenience and Efficiency: Convenience is essentially an inherent cause of online shopping since one can make a purchase at any moment and in any place. Sites with easy-to- understand navigating options, quicker loading speed and efficient check out procedures will have higher attracting/ retention rates. Effect of Social Media: Social media have become an important product discovery, branding and customer care channel. Specifically, influencer marketing has become an effective instrument in making purchasing decisions and increasing brand awareness. Trust and Security: Security and trustworthiness still play a decisive role in internet exchange of products. Customers are inclined to those websites that suggest secure payment gateways, transparent return policy, and data protection procedures, causing the construction of trust and the likelihood of the second purchase. The purchase Engagement: Consumer behavior does not end at the time of purchase, but also involves product evaluation, after sale support and sharing feedback. Good experiences after the purchase can foster loyalty, whereas the opposite ones may cause the client to switch and serve as an irrelevant review. To conclude, online consumer behavior is complex, and it is determined by a multi-factor system of technological, psychological, and social inputs. Companies which actively respond to such behavioral trends, invest in tailor-made experiences and demonstrate a high level of trust are in a better position to entertain the contemporary, and in future, competitive digital market.

2.6 Theories of Consumer Behavior

Consumer behavior is part of the interdisciplinary research based on psychology, sociology, and economics as disciplines to provide insights used in understanding how purchasers base their purchasing behavior. The various fields have introduced their theoretical tools, which have made marketers understand and forecast customer behaviors more accurately. The classical utility-based theories of economics on the one hand and the traditional stimulus response paradigm of psychology on the other hand formed the foundation of early studies on consumer behavior; psychology adding in the factors of rewards and punishment, cues and drives to the development of behavior. The scope of study grew over time to include internal factors which are motivation, values, and attitudes. An example is the social theories by Veblen (1919) which analyzed consumption in a sociological sense, therefore, focusing on the role of social status and social class. By the late 1950s, mathematical modeling techniques were starting to be used in research (including stochastic learning models and cognitive flow-chart representations, sometimes bolstered by nascent computer simulation capabilities) in an attempt to give a more systematic view of consumer behavior. The Technology Acceptance Model (TAM) emerges as one of the commonly accepted models of approaching the problem of understanding the way people adopt and use information technology among the current models. TAM was first developed by Davis in the 1986 doctoral thesis, and since then it has been tested and has experienced vast amounts of empirical research and has been refined in all sectors (Sargolzaei, 2017). According to the model, there are two main perceptions which define the adoption of technology: perceived usefulness, which refers to the belief that it will benefit the performance of the user (Khadra, 2017) and perceived ease of use, which refers to the belief that the technology will be easy to use (Haq and Ghouri, 2018). TAM has also been useful especially in e-commerce study, whereby it has been used to justify or give an explanation on the reasons sometime consumers visit online shopping sites or use mobile commerce apps. Many articles have supported the model in its predictive ability along with extended versions which add other variables. The latter could be illustrated by the fact that TAM has been used in predicting mobile advertising acceptance and we have seen that it would be more useful when other psychological or contextual circumstances are included to increase its predictive power. Equally, the model has been applied in investigating the process of health information technology adoption by users of healthcare information systems (Rahimi et al., 2018). Particularly, perceived usefulness, was found to be one of the major determinants of the consumer decision-making (Scherer, Siddiq, and Tondeur, 2018; Dang, 2018). In TAM model the perceived usefulness has got a direct significant impact on the intention to acquire the technology which in turn impacts on the behavioral adoption behavior (Yi and Hwang, 2003; AmoakoGyampah, 2005). Empirical evidence generally shows that perceived usefulness tends to out-predict other constructs-perceived ease of use or hedonic enjoyment-in predicting behavioral intention. However, it can be more or less significant depending on the sort of the system one is dealing with. The importance of pleasure and enjoyable usability of the product and system may be given in the hedonic systems more than utility of being adopted (Heijden, 2004). The relationship between perceived usefulness and behavioral intention does not exist in vacuum, but is mediated by the concept of self-efficacy, goal orientation and intrinsic motivation. According to research, those who possess greater confidence about their technological skills, a student-focused orientation, or great propensity to enjoy are the ones who are inclined to accept systems even in case of similar perceived usefulness (Yi and Hwang, 2003). This fact suggests that e-business companies ought to build their websites in a manner that will attract both functional and emotive customer requirements. Empirically, e-commerce providers may cater to the perceived usefulness by incorporating the features that would directly address the needs of customers- namely personalized product suggestions, detailed information about the product, and the simplified checkout routine. The perceived value of the platform can be enhanced as well by providing multi-device compatibility and multiple safe payment options. At the same time, in order to enhance the perception of ease of use, it is necessary to consider optimizing the navigation, reducing the cognitive load and keeping the intuitive design structure. The perception may be strengthened by periodically surveying customers and incorporating user-generated updates, as these initiatives would confirm that the platform is user-friendly and responsive. In addition to TAM, there are other complementary theories such as the Diffusion of Innovation theory by Rogers (1962) which are evident in that it examines the relevance of factors like relative advantage, compatibility with user values, difficulty, trialability and observability in determining patterns of adoption decisions (Vijayasarathy, 2003). By being used in combination, they offer a multidimensional view of the how and why people adopt the new technologies, especially in the e-commerce industry, which is very dynamic. Another analytical strategy that has risen in the limelight is the Structural Equation Modeling (SEM) that will allow a researcher assesses the relationship between latent psychological constructs and observed behaviors. SEM has also been used in e-commerce to test the associations between product approval, trust, satisfaction, and economic situations higher up (Wang and Tong, 2010). The reason why the method fits well is its ability to accommodate various interconnected variables hence generating an overall picture of what drives the online consumer behavioral dispositions. With the help of SEM, both scholars and practitioners get a chance to discover subtle dynamics that help to understand how perceptions are set and purchase intentions are shaped and use it to focus on devising the strategies that can be driven by data to increase customer satisfaction and loyalty (Tarka, 2017; Wang and Tong, 2010). Comprehensively, TAM presents a bare bones model to the interpretation of consumer technology adoption but companion theories such as Diffusion of Innovations and methods such as SEM add further insight to this interpretation. To maintain long-term impacts of e-commerce advancement, it is paramount to consider perceived usefulness, and easiness of using it and considering the wider socio-psychological factors. In this way, online retailers will be able to make interesting, credible, as well as user-friendly sites that promote adoption, loyalty, and competitiveness in the online market (Ashraf, Thongpapanl, and Auh, 2014; Almtiri, Miah, and Noman, 2021; Grand on and Pearson, 2004; Wang et al., 2023). The Theory of Planned Behavior (TPB), first was a Theory of Reasoned Action in 1980, aims to outline the intention of an individual to be in a certain behavior in a specific time and venue. It has been created to justify the actions that can be controlled by the will of an individual. Most basically, TPB focuses on behavioral intention as the single most important factor in the determination of action. These intentions are influenced by: (1) attitude of an individual towards behavior, which is determined by weighting of the estimate of the possibility of a positive outcome will occur (2) the subjective value of the estimated costs and potential outcome.

2.7 Online Consumer Behavior

Consumer behavior is an important aspect that organizations and marketers should understand since it is crucial in determining how consumers make their purchases. This type of knowledge does not only bring strategic advantage but steers decision makers towards making effective marketing strategies and business strategies. It is also helping marketers to analyze consumer trends whereby helping the ordinary consumer make better shopping decisions (Mowen & Minor, 1998). As the Internet and other related technological advances increased rapidly in addition to the digitalization, it has brought about marked change in consumer behavior too. Marketers need to evolve along with those changes, continuing to increase the worth of their online marketing offers. As consumers display numerous sentiments towards their online purchasing, it is crucial that e-commerce providers determine both their existing base of customers and the prospective consumers (Turban et al., 1999). The concept of customer-centric has been a formidable parameter in the environment of online shopping (Currie, 1999). The role of the websites is of real importance in terms of collecting the insights on the customer preferences and research behaviors (Berthon et al., 1996; Novak, 1996). Internet has become one of the useful research tools that include online surveying, discussion boards and visitor tracking mechanisms to collect consumer information (Quelch & Klein, 1996).

2.8 Online Consumer Behavior Framework

A key feature of creating a sustainable competitive advantage is the improvement of the quality of customer service. IT is a strong facilitator in the betterment of customer support and experience (Coyne, 1989; Earl, 1989). IT infrastructure is becoming more and more utilized in terms of business activities like the business operations, product management, marketing strategy, and distribution (Keen, 1991). Compared to the traditional retail, online markets are faced with the opportunity of providing a better and more rewarding shopping experience (Breitenbach & Van Doren, 1998). The new cyber technologies give consumers the strength to search products, compare, and get relevant information in a manner that is not achievable in the physical stores (Biocca & Levy, 1995). Information access and its quality have a very powerful impact on purchasing actions (Stil & Zimerman, 1996). This has prompted the researchers to state the necessity of verifying what kind of information should be provided to the consumers in order to aid in their decision making process, and what effective data gathering, processing and utilizing algorithms are available (Vrechopoulos et al., 1999). This necessitates the need of an effective and integrated system to collect information like demographic data, consumer profiles, preferences, and navigation pattern of the consumers, most notably in stores. There has developed a need to overcome this problem by establishing the Internet Consumer Behaviour Framework (ICBF) that will help in strategic marketing as well as in sales planning. According to Sen et al (1998), there were three main sources of consumer-related data, which include: Websites have log files that are automatically recorded. Public data are secondary data used Direct data on visitors of the web sites In the ICBF, the Consumer Support Model deals with the virtual retail store and include phases of consumer buying process. The reasons that allow online retailers to craft even more customized shopping experiences include methods like data mining which produces functionalities that yield customized interfaces that fulfill the preference of individuals. Online retailers, unlike the traditional marketers, perform their operations under a one-to-one communication system, which means that they are able to offer unique individual web-site designs and navigation features. It has the effect of enhancing more customer satisfaction, loyalty, and by extension competitive advantage through this personalization. O'Keefe and Mceachern (1998) provided a system in which Customer Decision Support Systems (CDSS) are combined with the web-based applications so that customers can make their decision-making. They recommended that the ideal online retailing site would be able to support the entire process of buying and reward the consumers with satisfaction about the goods purchased and shopping experience, in general, the site would also assist companies to derive strategic benefits. Moreover, they stated that companies have to provide their support at every step of the purchasing procedure with the help of CDSS similarly to how managers depend on Decision Support Systems (DSS) to impartially aid their strategic choices. Online scenario changes the locus of decision making to the customer empowerment as opposed to the locus of management.

2.9 Determinants of Online Buying Behavior (Factors Influencing Consumer Purchase Decisions)

Since digital technologies keep enhancing, it is more and more important to learn how the forms of integration of both online and offline retailing aspects impact on consumer acceptance of the internet shopping centers. Throughout this section, several factors that influence user experiences and adoption trends are discussed, and where possible a detailed understanding of the interaction of virtual and physical aspects of retail as they improvise to address consumer demands and market requirements are sought to give a clear picture of the sector. According to the existing research, available reasons for the online shopping behavior consist of a broad spectrum of motivations, including effective reasons such as the availability, affordability, and accessibility of products to psychological factors, including social influences, perceived risks, and personal choices (Ibrahim et al., 2023). More specifically, the younger consumers are more prone to make their purchases online due not only to a convenience factor but to lower the risk of physical contact and comply with social distancing standards, which is also associated with the changes in the societal behavior (Ibrahim et al., 2023). With the growing competition in the e-commerce markets, digital retail management has become an important part of the business strategy companies consider in maintaining and increasing their presence in the market. In assessing the main factors that drive the shopping online the companies may customize the marketing outputs, better their product offerings as well as augment the general shopping experience thus solidifying their competitive edge in an ever-evolving digitalized economy. The process of adopting online shopping is a complex affair involving the weighting of the perceived advantages like convenience of reaching and a variety of products against the perceived disadvantages which include issues of trust as well as problems of technology. The extent to which companies manage to combine online and offline capabilities into one smooth experience is gradually becoming a key success factor in the environment of the dynamic world of e-commerce (Saidon et al., 2021; Svato, 2020; Ibrahim et al., 2023). The influence of social media on defining youth lives has been significant with all its positive and negative impacts. Although the social media platforms allow the young individuals to develop a social outlook, acquire learning content, and expose themselves to new opportunities and experiences (Ngonso, 2019), the uncontrolled or overuse has created issues with mental health and well-being (Glazzard and Stones, 2019). Research confirms that the effects of social media on the mind of youth are neither simple, nor single factors. Although its advantages to communication and community-building, social media is harmful as well, which is characterized by mental health issues such as depression, anxiety, and body image disorders (Glazzard and Stones, 2019; Nesi, 2020). The breach of privacy and cyber bullying are some of the key concerns since the impassiveness and accessibility of these platforms provide young users with the hazard of being victimized and messed about by emotional harms. Besides, the continuous introduction to idealized models of life cannot prevent the development of a feeling of inadequacy and poor self-esteem, especially in individuals who are already susceptible to these issues (Nesi, 2020). Unhealthy behavioral patterns that can be due to social media addiction, including its effect on increase of screen time, may be associated with sleep disturbances and worsening academic achievement (Khalaf et al., 2023). The obsessive verification of the social network, as well as vague rules of use, not only violate the normal sleep structure but also exacerbates mental problems and decrease productivity. However, this correlation does not always indicate a negative impact of the social media on the mental health; individual characteristics as personality traits, coping mechanisms and styles of engagement mediate these processes. Whereas there are some youths who prove resilience towards the negative effects of social media, there are youths who are more vulnerable to the negative effects thereof. Overall, the phenomenon of social media in the lives of young people is complicated. Although it helps to connect people more easily and build a social network, it also implies risks that should be managed properly. Self-regulated and conscious use of social media, as well as diverse offline activities, may help change the behavioral pattern and emotional health of young people. As pointed out in the research, successful integration between online and offline characteristics of retailing is crucial towards promoting consumer acceptance and popularity of internet shopping malls. This is why, in addition to investing in technological possibilities, business also needs to center its attention on the psychological and social processes which determine consumer behavior as it is such considerations which are central to designing experiential user processes and ensuring a competitive presence in the online market. The level of integration of the knowledge delivered in a range of studies provided in this review sheds light on the intricate nature of the online shopping behavior, suggesting effective strategic implications to e-commerce enterprises and, more importantly, providing a model of how to go about and utilize the new opportunities and handle the challenges the ever-changing digital market environment brings forward.

2.9.1 Perceived Ease of Use

Perceived ease of use is described as the level to which the consumer feels that the utilization of a given system will relieve them the burden (Davis, 1989). It is linked to the ease of information discovery and search among the consumers on the internet transported to the ease of search and discovery in the conventional mode of shopping. According to Daraian (1987), online consumers feel more comfortable using the available online services as opposed to attending the actual shops physically. The level of ease which is an important aspect that creates a difference in online shopping behavior (Bhatnagar and Ghose, 2004). Still, the e-commerce literature reports that the perceived ease of use (PEU) has the advantage of facilitating information search, the convenience of the ability to order products whenever and where ever, and the generality in ease of use, whereas perceived usefulness (PU) involves the ability to search and purchase with increased efficiency, provide positive benefits in the productivity, save time and money, and the ability to afford more products (Khalifa and Liu, 2007; Park et al., 2004). Online platforms are also very critical in influencing consumers to shop online because of the functionality and usability (Robinson, Riley, Rettie and Wilsonz, 2007). Relaxation combined with variety seeking behaviour also acts as an incentive to online shopping (Rohm and Swaminathan, 2004). Technologies which are regarded as simple to use enjoy a greater adoption (SElamat et al., 2009). User-friendly systems that require little user effort and responsive systems to the customer are more likely to be implemented and received positively towards the business by its customer (Teo, 2001). Online, perceive ease of use has a positive correlation on the attitudes and purchase intention of the consumers (Bisdee, 2007; Yulihasri & Daud, 2011). The convenience of understanding, reduced effort expenditure, and shopping whenever the consumer is available in a web site create a positive attitude towards this web site (Childers et al., 2001).

2.9.2 Perceived Shopping Attributes

Researchers like Loebbecke (2003) Chen and Chang (2003) and Demangeot and Broderick (2007) have found that there are several key attributes of online shopping and they include: Presence of usability and interactivity of the online site Trust of vendors / marketers Content quality Posting of information Marketing mix Third-party approvals Endorsements Name designing of a website and user interface has a direct bearing on perceptions of consumers during online shopping (Jarvenpaa & Tractinsky, 1999; Zhang & Von Dran, 2000). Depending on the services and products provided, the consumers will evaluate the attributes of the websites differently (Zhang et al., 2001). The attributes that have been found to invite positive intent of buying are the design quality and the features of the website that helps to establish some level of trust (McKnight et al., 2002). The layout of the websites plays a vital role in determining the credibility (Fogg et al., 2002) and the right treatment at each point of online buying process is imperative (Lohse & Spiller, 1998). The most influential attributes of web stores on purchase intentions pointed out by Belanger et al. (2002) were security, privacy, features that are more pleasurable like convenience, how easy the stores are to use and beauty. Tanganathan & Ganapathy (2002) have distinguished the following attributes of a quality web site: information content, design, security, and privacy. In their study, Wolfinbarger & Gilly (2001) stated that consumers use information about the retailer and site design to understand the attractiveness of the product, such as the ease and fun of navigation. Product mix is a good condition that influences the satisfaction people have about the product (Szymanski & Hise, 2000).

2.9.3 Perceived Benefit

Perceived benefits identifies with the advantages that shoppers get when they go online to buy goods (Forsythe et al., 2006). Customer buying online is common since there are numerous advantages provided. The level of satisfaction and the perceived benefits derived in the course of shopping remain the two most important indicators. Perceived benefits include the perception of consumers on the safety of society when making online transactions (Kim et al., 2008). The perception of the benefits is also closely related to the attitudes of the consumers towards online shopping and whether they intend to purchase goods/services online (Karyenpaa & Todd, 1996). These advantages are the convenience, the variety of the products, ease in shopping, and pleasure. Convenience in online shopping involves shopping anywhere and at any time which saves the time of travelling to the stores (Harn, Khatib, & Ismai, 2006). The ease of this is a positive factor in changing the intention of the consumers to shop online (Koufaris, 2002). Online shopping provides the consumers with the opportunity to search, browse and purchase products in various time zones (Juniwati, 2014). This is because online services can be used all the time (McKinney, 2004), and thus no interruption occurs when one is doing his or her shopping (Ko, Jung, Kim, & Shim, 2004). Easy to find the product means easy convenience to shop (Seiders, Berry, & Gresham, 2000). Possession convenience is an aspect of convenient acquisition of a product whereas time convenience is perceived as an instance of timely delivery (Kwek, Tan, & Lau, 2010). The online shopping offers the opportunities to compare, evaluate and select among plenty of possibilities (Dillon & Rief, 2004; Rowley, 2000).

2.9.4 Perceived Usefulness

Perceived usefulness can be described as an opinion or view of the consumer that use of online shopping site enhances efficiency and value addition to the traditional way of shopping (Hu et al., 2009; Lai & Wang, 2012). It is also defined as the systems that help increase performance of tasks online (Davis, 1989; Zhu, Lee, O‘Neal & Chen, 2009; Liao et al., 2013). Modern technologies and customization of services on the internet are good indicators of the perceptions of usefulness (Kim & Song, 2010). The internet retailers ought to give detailed product and service details to buyers (Chen, Gillenson & Sherrell, 2002). Superiority in research focus for the construct entered in the developed countries (He et al., 2008; Hu et al., 2009; Lai & Wang, 2012; Liu et al., 2010; Xie et al., 2011; Zhao & Cao, 2012), as there was little research in developing countries because of the improvised stage of technology and infrastructure. An experiment in Spain has validated perceived usefulness having great impact on online shopping (Hernandez et al., 2011) but another one in Iran did not add any significant impact (Aghdaie et al., 2011) perhaps because of technology diversity. Both usefulness and ease of use have a great influence on information system utilization in terms of perceived usefulness (Nbudisi & Jantan, 2003). The Enrique et al. (2008) study, Kim & Song (2010) and Xie et al. (2011) confirm the significance of perceived usefulness on the online purchasing behavior. Kim and Song (2010) found that when consumers were provided with information and convenience, they will continue to purchase through online retailers, failing which the consumer will move to the competition. In general it is possible to say that perceived usefulness has impact on intention to purchase online (Xie et al., 2011).

2.9.5 Perceived Risk

Although the prevailing speed in the growth of online transactions with the advent of Internet has boosted the popularity, large numbers of consumers are still reluctant due to risks and barriers. The uncertainty that consumers have when searching, evaluating or purchasing online is often defined as perceived risk, which can be a likely obstacle to make the purchase in most cases (Bauer, 1960; Dowling & Staelin, 1994). It plays a central role in informing consumer decisions online which normally is found to be increased compared to shopping in a store (Chavda, Virendra, 2018; Stone & Gronhaug, 1993). The notion of risk makes the consumers less willing to make a purchase of a product or service online (Barnes, 2007). The fear of financial loss is very common (Pavlou, 2003). There are a number of varieties of risks involved in buying online and they are as follows: Delivery Risk Privacy Risk Quality Risk Time Risk

2.9.5.1 Delivery Risk

High delivery may deal with the problem such as loss, damage, or delivery of incorrect products (Zhang, Tan, Xu & Tan, 2012). Delays or failure of delivery of products can also be viewed as a risk of delivery. Shoppers will be concerned about poor estimates of delivery date or a long waiting time. It is imperative that there be proper packaging, simply because bad packaging has adverse effects on the purchase behavior (Chavda, Virendra, 2020; Masoud, 2013). Perceived delivery risk is minimised by schedule delivery, the security of its packaging, and warranties on products, which confidence is instilled on the consumers (Tsai & Yeh, 2010). 2.9.5.2 Privacy Risk Online shopping is highly concerned with privacy. Buying intentions can be reversed on privacy concerns by the consumer (George, 2002). Consumers can develop the fear of online shopping since they feel their privacy is being attacked. Risk to privacy entails acquiring, losing, or losing personal information provided in the online transacting (Featherman & Pavlou, 2003). Numerous customers are afraid of illegal transfer of personal information. According to Lenhart (2000), approximately 10 percent of the internet population had exited online activities following a concern of privacy; however, 54 percent of the online populace remained out of online shopping because of the risk of frauds. Shoppers care about payment security, reliability of the sites, and privacy policies. Giving personal and payment information (e.g. credit cards) makes the whole process more apprehensive about privacy (Bhatnagar, Mishra & Rao, 2000). Customer satisfaction is imperative because it protects both personal and financial data (Kyauk & Chaipoopirutana, 2014). Online retailers need to explain security to the consumer in a clear way that makes the consumer have trust (Ab Hamid et al., 2006). As together with the upcoming of the use of AI, big information, and the crossing of behaviors, issues related to decision-making and management have emerged. The use of predictive algorithms that can take place behind the scenes and use the personal information may lead to a decrease in transparency and consumer agency (Andre et al., 2017). Autonomous devices increase complexities in that they make decisions made on behalf of their users and this reduces user control (Andre et al., 2017). Scholars put an emphasis on shaping technologies that ensure that the user has control over it through visibility, challenge, or override of a decision, which leads to fairness and trustworthiness. Another potential source of private and ethical data practices is also policymakers since they are key in ensuring consumer insight and data control without being over-targeted (Biega and Finck, 2021; Andre et al., 2017; Huang, 2023; Gambs, 2019). Whether it is reading books or the right to choose or being treated fairly, smarter tech means a better life with greater empowerment and more transparency (Huang, 2023; Gambs, 2019; Andre et al., 2017).

2.9.5.2 Quality Risk

In the case of online consumer product perceptions, since one cannot physically touch something on the internet, there is massive display of product information and images which have significant impaction (Jaryenpaa, Noam & Lauri, 1999). The quality plays an important role in deciding what to purchase (Yee & San, 2011). When one fails to uphold quality standards, they are missed opportunities (Zhang, Tan, Xu & Tan, 2012). Quality risk entails defective, malfunctioning products, or taking delivery of the wrongfully described products. Consumers may not be able to check a desired level of product quality due to the reasons identified in situations where perceived quality risk would end up being high (Bhatnagar, Mishra & Rao, 2000). Considering the alternatives in terms of features, price, competitor offers will minimize the quality risk (Jin & Suh, 2005). Reduced level of perceived quality risk has the net effect of increasing online purchase likelihood (Jaafar, Lalp & Naba, 2012).

2.9.6. Time Risk

Time risk is associated with the time spent by the consumers in search, evaluation, as well as purchase of online (Griffin & Viehland, 2010). It also incorporates wasted time, manpower, ineffective purchasing decisions and the availability of the products. Slow responses in the websites or placing orders or getting a product are some of the contributors to time risk (Forsythe, Liu, Shanon & Gardner, 2006). Greater levels of perceived risks result to more time and energy on decision-making (Broekhuizen &

Jager, 2004). Featherman & Palou (2003) defined time risk as the type of time waste involved in making poor decisions, information search, comparison, research, purchasing and learning the usage of products.

2.9.7 Perceived Trust

Online shopping is important in relation to the transactions. This entails convenience of obtaining product/service facts, convenient ordering, confirmation of orders, tracking of orders and after-sale services (Srinivasan S., 2004). Online trust model suggested by Srinivasan (2004) works on the basis of trusted seals, security, and financial institutions. When they trust, the consumers are likely to make their business online rather than offline (Kim J. et al., 2005). Sites that have the capacity to deliver regarding time and address queries in a way that results in long-term commitments by sustaining relationships cause the consumers to have trust (Bhatt, Viral & Ajmera, Hiteshi & Nayak, Keyurkumr., 2021; Mukherjee A. et al., 2007). Commitment-Trust Theory developed by Mukherjee et al. (2007) clarifies the building of trust in online retailing. Trust and loyalty can be achieved through privacy and security options of websites. Karjaluoto (2007) came up with a conceptual model that identifies internal and external influences that have effects on online trust. When trust is high the customer will make a repeat purchase and will show commitment. Branding contributes to the trust factor since it reduces the perceived risk with products and vendors (Pappas, Nikolaos, 2016).

2.9.8 Web Store Atmosphere

Kotler (19731974) refers to stored atmosphere as a strategic situation meaning the constructed situation used to attract the needs of consumers. The web stores provide online retailers with different atmospheric cues. The aim of store atmospherics is to make a marketing tool to heighten sensory experience, lengthen the shopping time lengths and control buying behavior (Chang, 2000). Shergill and Chen (2005) reported that an experience of hardship arises in the development of atmospheres online because of the inability to access the senses. According to a research conducted by Eroglu et al. (2000), one of the key factors that affected the online shoppers was web store atmospherics. Computer screens, colors, layouts, graphics, and sounds are meant to establish atmosphere through virtual retailers in stores (Bhatt, Viral & Raval, Himanshu, 2021). All these factors contribute to informing consumers to choose what websites to visit, spend more time shopping, and develop positive attitudes. Navigation and site maps can be quickly listed among key factors of atmosphere creation. According to Eroglu, Machleit and Davis (2001), use of colors online is a brilliant idea; and colors are one of the main constituents of web designs (Manganari et al., 2009). Warranted color application has the appropriateness of influencing perception of consumers (Hausman & Siekpe, 2009; Menon & Kahn, 2002).

2.10 Summary

The consumer purchase behavior literature indicates that there are huge discrepancies between the two modes of shopping; the online world and the offline world. In comparing the two modes (Section 2.1) it has been noted that in offline shopping, evaluation of products is made through use of the product; likewise an instant purchase can be made whereas in online shopping, it is more convenient, one gets access to more products, and saves on time among other factors. These benefits can be used to explain the expanding list of incentives to online shopping (Section 2.2) that includes low expenses, customized suggestions and the capability to shop in any location (almost any location). Assessment of online stores (Sections 2.3) reveals that customers evaluate the shopping stores on the basis of site functionality, quality of product information, product payment security, and after sales to the customer. Online consumer behaviors (Section 2.4) also differ as seen in terms of demographics, their ability to use technology, and their psychological preparedness with consumers of younger age and those who are tech savvy experiencing less adoption. The problem of consumer behavior (Section 2.5) is based on obtaining a multi-disciplinary approach rooted in the fields of psychology, sociology and economics. Consumer behavior is defined as (Section 2.5.1) and thus focuses on processes where people choose, buy, and consume goods or services. The significance of customer behavior (Section 2.5.2) is that it helps companies in customizing marketing, foreseeing market trends and in increasing customer satisfaction. Consumer behavior theories (Section 2.6) have developed over the course of early economic theories of consumer utility to present-day theories based on the Technology Acceptance Model (TAM), Diffusion of Innovations Theory and theories that focus on the adoption stages of technology. Superiority operating at the theoretical level, these foundations of the same have a specific relation to the phenomenon of online consumer behavior (Section 2.7), as an element of a decision-making process, functional and experiential aspects of which play an equally important role. The online consumer behavior structure (Section 2.8) incorporates different kinds of determinants (Section 2.9) of the purchase behavior. Out of these, perceived ease of use (Section 2.9.1), and perceived shopping attributes (Section 2.9.2) has the leeway to influence wanting consumers to transact online. Adoption is improved by perceived advantages (Section 2.9.3) and usefulness (Section 2.9.4), and may be prevented by perceptions of risk (Section 2.9.5) that includes risks of delivery (2.9.5.1), privacy (2.9.5.2), quality (2.9.5.3), and time (2.9.5.4). One of the main determinants, which are constructive by the application of safe payment systems and transparent policies with trustworthy service, comes to perception, that is, perceived trust (Section 2.9.6). Lastly, the web store climate (Section 2.9.7), in terms of visuals, orientation, and interactivity, also helps lead to consumer interest and adherence. Altogether, the literature discussed highlights the importance of the idea that determining online consumer behavior comprises a multi-layered interrelation of technological, psychological, and contingent concerns. These factors can be used to understand how to create e-commerce websites that will attract and retain customers in the competitive online environment offering numerous shopping opportunities.

CHAPTER THREE

CHAPTER 3: RESEARCH METHODOLOGY

This chapter introduces the research methodology together with the overall approach, design, and procedures. It contains the preparation of research tools, rules of statement building, methods of data collection, and sampling procedures employed, including sample size determination. Adequate care has also been given to recording the precautions employed to ensure reliability and validity. The chapter also describes the data analysis and interpretation methods employed. Lastly, it establishes the chief limitations of the research study, thus presenting a complete framework that rationalizes the methodology selection and specifies the limits and boundaries of the research.

3.1 Research Design

Descriptive research design is used most frequently in marketing research because it allows researchers to specify the nature of a target segment, describe research questions, forecast possible behaviors, and test hypotheses (Cavana et al., 2001; Malhotra, 2004; Aaker, Kumar & Day, 2007). In this research, it is helpful for analysis of online consumers' tendencies and characteristics.

In addition to the descriptive method, a quantitative method is applied since it is most appropriate for formal instruments like questionnaires. Previous studies have shown that questionnaires not only succeed in their application but also produce standard and homogenous responses (Ahn et al., 2004; Bhatnagar et al., 2000; Cook et al., 2002; Malhotra, 2004).

The research applies a single cross-sectional design, a technique that is commonly employed in marketing research (Malhotra, 2004). As opposed to longitudinal surveys where successive follow-up responses from the same sample of respondents are expected, cross-sectional techniques are more suited where successive follow-up responses from the same panel of respondents are not expected. Various prior consumer behavior studies have successfully applied this technique (Bhatnagar et al., 2000; Goldsmith & Goldsmith, 2002; Sim & Koi, 2003).

Overall, the current study employs a descriptive, quantitative, and cross-sectional research design to analyze consumer attitude towards online shopping in Bangladesh.

3.2 Respondents and Sampling Procedure

3.2.1 Target Population

The target population of this study is internet users living in Dhaka's urban areas. Nationally, the largest number of active internet users belongs to the young adults and middle-aged groups. They are more appropriate, as they are the most regular users of digital media and thus have a higher chance of shopping online. Focusing on this segment, the research aims to leverage in-depth consumer behavior knowledge within an urban setup where penetration of technology and internet usage is significantly greater than rural settings.

Respondent selection was achieved by using a convenience sampling method such that willing and available respondents could be accessed for interviewing. Dhaka, being the economic hub and capital of the country, has a distinctive location with greater internet penetration than other areas. Therefore, it is a good place to observe online consumer habits. Moreover, this population is also diversified in terms of income, purchasing power, and knowledge of technology, thus making it a sufficient dataset so that one would be able to test shopping patterns online.

3.2.2 Sampling Method

The research employed a non-probability convenience sampling strategy, which was chosen due to the fact that it is cost-effective and easy to get responses from the available participants who are willing to cooperate. Convenience sampling is best applied in exploratory research as it allows for rapid collection of data with fewer resources. Although the method does not provide statistically representative data regarding the overall population, it still allows the researcher to identify forthcoming trends and patterns among the target population.

For increasing proportionality, quotas were created based on Bajpai (2017) to ensure the sample was representative of meaningful demographic features like age, gender, and frequency of internet usage. The quota adjustment is enhancing findings' validity by addressing the inherent heterogeneity found in the universe of online consumers in Dhaka. While non-probability sampling has a lack of generalizability, utilizing quotas increases findings' reliability by reducing bias and enhancing representation balance for the population.

This non-random approach, although focused, enables the research to be targeted at those populations most well-suited for its aims—urban-based internet users. Targeting can potentially provide actionable information regarding the online behaviors and tendencies of one of Bangladesh's more technologically advanced populations.

3.2.3 Sample Size Determination

The Cochran formula was used to ascertain the requisite sample size according to the desired precision, confidence level, and estimated proportion of the population bearing the desired attribute. The formula is particularly useful in handling cases of large populations as it assists in arriving at a minimum sample size that can guarantee statistical reliability. Where a smaller population exists, there is an intrinsic correction factor bringing the sample size required down to account for the increased representativeness of small populations. Through applying this process, research makes sure that the selected sample is efficient and statistically sound, hence increasing the quality of follow-up analyses.

The Cochran formula is:

$$n_0 = \frac{Z^2 \cdot p \cdot q}{e^2}$$

Where: e is the desired level of precision (i.e. the margin of error), p is the (estimated) proportion of the population which has the attribute in question, q is 1 – p

95% level of confidence is used, so z = 1.96. Next, the p = q = 50% situation is customarily assumed as it is the worst possible case of variability. Let‘s take a ± 3.1% sample error.

Using the sample size formula, the sample size, n, is calculated as follows. Sample size computed with p = 50%, q = 50%, and e = 3.1%

For the current study, 1,200 respondents were determined to be the final sample size. Such a figure was reached as a good reflection of sampled diversity of online consumers of urban Dhaka with a reasonable range of data collection and analysis. The sample size also provides a good statistical power to measure consumer behavior and preference across various demographic segments, hence the robustness of research findings.

3.3 Survey Instrument Development: Questionnaire

A systematic questionnaire was prepared for data collection in line with the study aims. The survey instrument had three parts: demographic details, typical questions regarding online purchasing, and scale items to determine online purchasing determinants. Basic shopping questions and demographic information were prepared based on nominal and ratio scales (Cavana et al., 2001). To gauge impressions of online purchase behavior, statements were developed on an interval scale, a five-point Likert scale type (1 = Strongly Disagree to 5 = Strongly Agree). This type of scaling enabled the respondents to convey different levels of agreement on the given statements. All the questions were maintained as closed-ended to make them straightforward, easy to answer, and provide uniformity in data collection.

3.4 Pre-test, Pilot Survey, and Reliability

To enhance the validity of the instrument, the questionnaire was initially tested with 10 business school professors and 10 marketing students. Based on their feedback, there was minor rewording to ensure that the items were clearer, relevant, and understandable. After this modification, a pilot survey was administered to a small sample of respondents prior to initiating the main study. The purpose of the pilot was to recognize potential weaknesses in the tool and pilot test its reliability (Cavana et al., 2001; Sekaran, 2003). Pre-testing of this type ensures that the instrument is unbiased and free from measurement errors, and hence results are more accurate. Malhotra (2004) recommends that the pre-test sample must comprise 15-50 respondents from the same population as the final survey, a guideline which was observed in this research.

3.4.1 Reliability

Reliability is consistency and accuracy of the instrument in measuring those constructs of interest. Reliability measures the degree to which exactly the same scores are obtained when the measurement is undertaken under the same conditions (Madden & Dillon, 1994). Internal consistency of the constructs was evaluated in this research using Cronbach's alpha. As stipulated by Malhotra (2004), a coefficient of reliability is weak at 0.6 and below, fair at 0.7, and strong at more than 0.8. The findings of the reliability of construct items employed in the measurement of online shopping are shown in the table below, which presents evidence that the tool employed in the study is consistent and valid.

3.4.1.1 Cronbach’s Alpha

For assessing internal consistency of research items, Cronbach's Alpha was utilized. Results, as clear from the table, display reliability statistics for various dimensions of e-service quality, along with corresponding respective numbers of items. Cronbach's Alpha values greater than 0.70 reveals assurance of adequate internal consistency of measurement items (Malhotra, 2004). For this research, the values are approximately 0.90 for all dimensions, indicating that it has very high reliability. This suggests that data collected are stable and internal consistency is not breached, thus validating the reliability of the scales.

3.4.1.2 Rho_A, Composite Reliability, and Average Variance Extracted (AVE)

Rho_A, to the same extent as Cronbach's Alpha, estimates the internal consistency of items of the scale. Rho_A, as per Dijkstra and Henseler (2015) and Dijkstra and Schermelleh-Engel (2014), must be higher than the critical value of 0.70. All given values in Table 1 are higher than 0.90, paving the way for the fact that constructs like Perceived Ease of Use, Perceived Benefits, Perceived Trust, Shopping Tangibles, Perceived Usefulness, Webstore Atmosphere, Perceived Risk, and Buying Intention are sufficiently reliable.

Composite reliability is another internal consistency estimate and yields the same finding. Hair et al. (2006) suggest composite reliability above 0.70 and AVE above 0.50. AVE is variance explained by a construct over measurement error. Fornell and Larcker (1981) suggest that when AVE is below 0.50 but composite reliability is above 0.70, convergent validity is acceptable. In research (Table 04), AVEs were: Buying Intention (0.778), Perceived Ease of Use (0.655), Perceived Benefits (0.720), Perceived Trust (0.786), Shopping Tangibles (0.751), Perceived Usefulness (0.825), Webstore Atmosphere (0.807), and Perceived Risk (0.765).

These results show high convergent validity as all AVE values > the minimum 0.50 (and, in this research, all > 0.65). Additionally, composite reliability is > 0.90 and for every construct, composite reliability is > AVE, and thus the validity criterion is established.

3.4.1.3 Convergent and Discriminant Validity

Convergent validity is ensured since AVE values for all the constructs are higher than 0.65 with excellent composite reliability. Discriminant validity is ensured if AVE is larger than Maximum Shared Variance (MSV) and the square root of AVE is higher than correlation coefficients among constructs. The conditions were verified by the analysis, meaning there was no assumption breach of convergent or discriminant validity.

3.5 Statistical Treatment of Data

The 1,200 participants were initially sampled for data gathering. Employing the data cleaning process to eliminate incomplete and inconsistent responses, the respondents were narrowed down to 1,180 valid cases used for final analysis within this study.

3.5.1 Descriptive Analysis

For demographic variables, descriptive statistics such as frequencies and percentages were calculated to determine how respondents answered each question. Measures of central tendency (mean) and variability (standard deviation) were also computed to evaluate the average response and the degree of dispersion across both independent and dependent variables. The results of this descriptive analysis are presented and discussed in Chapter 4. To further address the research objectives, several inferential statistical techniques were applied, as outlined below.

3.5.2 One-Way ANOVA

Analysis of Variance (ANOVA) One-way was used to determine whether statistically significant differences existed in dependent variables across groups created by an independent variable. The technique tests for within-group and between-group differences to evaluate the hypothesis of equality of means (Aaker et al., 2007; Cavana et al., 2001).

3.5.3 Regression Analysis

Regression analysis was used to investigate the correlation between the independent and dependent variables. A stepwise regression method was used in particular to specify the variance of the dependent variable explained by different sets of predictors. It also determines the best appropriate factors to forecast consumer behavior.

3.5.4 Bootstrapping and Path Analysis

Bootstrapping, a commonly applied nonparametric resampling method, was used in this research to determine the significance of Partial Least Squares Structural Equation Modeling (PLS-SEM) estimates. Parametric tests require a condition of data deriving from a normal distribution, which can be false in applying PLS-SEM. Bootstrapping permits estimation of standard errors and testing for significance for coefficients like outer weights, outer loadings, and path coefficients (Efron & Tibshirani, 1986; Davison & Hinkley, 1997). At this stage, a large number of subsamples (usually 5,000) are randomly sampled with replacement from the original data. The PLS path model is then estimated using each subsample, and the estimates are used to estimate standard errors and t-values to compare the statistical significance of the parameters.

3.6 Limitations of the Study

As with any empirical research, this one also has its limitations that need to be brought up so as to put the findings into perspective to prevent over-generalization. The following limitations were faced at various levels of the research, starting from data collection, analysis, to reporting.

One of the major obstacles was data access. While the proliferation of online resources such as electronic journals and databases has made it possible to collect some data from secondary sources, physical access to a source for data collection was still a challenge (Gummesson, 2000). The reason some respondents do not want to participate was lack of interest, lack of time, or any privacy concern due to the lack of resources. As a result of these challenges, pre-survey contact was established to establish trust, ensure confidentiality, and explain the purpose of the study. Ethical concerns were duly noted with a respect to the rules of Cooper and Schindler (2008) so that respondents' privacy and informed consent were a priority throughout the research.

Limitation was also time constraint. The research deadlines did not permit the reading of all of the literature on online shopping. Further, the focus was limited to studies considered directly pertinent to the research purposes. Furthermore, only quantitative approaches (mainly questionnaires) were used. A quantitative survey produces measurable and comparable data, but qualitative methods such as focus groups or interviews may have detected deeper levels of underlying motives and attitudes. Thus, a lack of qualitative inputs is a shortcoming.

A second limitation relates to sample-size and coverage. The study examined 1,180 valid responses (which is small relative to the total population of Dhaka, Bangladesh). In addition, the majority of respondents was urban dwellers, and as such the views of rural consumers was not adequately represented. In future studies, rural populations should be considered to incorporate population patterns that could change results and offer a more complete picture of online shopping behavior across demographics.

The measuring device also adds restrictions. Even though questionnaires are highly effective, they fail to record hidden motives or subconscious biases of respondents. Subjects may purposefully or accidentally provide inaccurate information which may affect the validity of the results. This problem could be alleviated in future studies with in-depth interviews or mixed-methods approaches.

Despite these challenges, the study offers some useful insights into consumer purchasing behavior using online shopping in Dhaka. The results are treated as being reasonable and valid within the recognized limitations.

3.7 Summary of Chapter

It can be seen from the analysis of this data that online shopping in Bangladesh is gaining importance day by day due to the availability of the internet, ease of use of the website (Constantinides, 2004), security aspect, and changing consumer demographics. Results show that the perceived usefulness, perceived benefits, trust, ease of use, shopping tangibles and perceived risk have a direct impact on consumers' purchase intentions and buying behavior, in line with prior research (Chiu et al., 2009; Dash & Saji, 2008; Venkatesh & Davis, 2000; Amaro & Duarte, 2015; Forsythe et al., 2006; Zendehdel et al., 2015).

Of these constructs, perceived usefulness was identified as the strongest predictor of purchase intent, which captures consumers' emphasis on online shopping efficiency, convenience, and time-saving. Trust and perceived benefits were also important, highlighting the value seen from the online platforms as well as trust in them. On the contrary, perceived risk had a negative impact on consumer confidence, emphasizing the importance of trust-building strategies and transparent security measures in the e-commerce growth.

Demographic variables also had influence on online shopping attitudes. The results show significant impact of age, income, education and occupation in consumer preferences and purchasing behavior. It was concluded that younger consumers, especially the 16-40 years age group, are more active online shoppers, showing higher trust in digital channels, as well as higher willingness to embrace new technology. These results indicate that the major growth market in terms of demographic age for online retailers in Bangladesh is the younger age group, which presents opportunities for personalized product marketing and customization.

Overall, the study supports that consumer adoption of e-commerce in Dhaka is driven by a mix of technological, psychological and demographic factors. The results highlight the importance of e-commerce providers investing in secure platforms, enhancing website aesthetics, and tailoring marketing strategies to demographic trends to foster trust and maintain growth in Bangladesh's burgeoning online marketplace.

CHAPTER FOUR

CHAPTER 4: PRIMARY ANALYSIS OF RESPONDENTS

This chapter sets out the results of the main survey and discusses them in light of the use of a number of data analysis techniques. The findings offer a holistic perspective of the important variables affecting consumer behavior on e-commerce websites in Bangladesh. By capturing patterns, relationships, and trends, the analysis lends insight into consumers' motivations, preferences, and the challenges involved with adopting digital commerce. Furthermore, the results are considered in relation to the extant literature pointing both to areas of convergence as well as divergence.

The study leads us to conclude that consumer behavior in Bangladesh is driven by a number of factors such as perceived ease of use with technology, perceived trust in the retailer, perceived attitude toward advertising and perceived complexity of the shopping procedure particularly for online shopping. According to the study, Analyzing the Opportunities of Digital Marketing in Bangladesh to Provide an Efficient Interrelation between Business Organization and Consumer, It was noted that a considerable number of consumers feel uncomfortable about the high dependence on technology, which might discourage them from using online shopping platforms regularly (Akter et al., 2020). This technology discomfort is usually related to low efficiency of browsing or lack of knowledge about the internet and leads to low consumer confidence in online transactions (Akter et al., 2020).

Another factor that determined the adoption of online shopping was Retail Trust. As the consumers of popular brands have past positive interactions, they can perceive lower levels of risk, which proves that trust is an important antecedent to e-commerce shopping in Bangladesh (Akter et al., 2020). Likewise, advertising has a huge impact on consumer perceptions. The study highlighted that online advertising remains an important factor in the Bangladeshi context in terms of attitude and therefore businesses need to carefully plan their digital campaigns in order to increase customer engagement and also to attract new users (Akter et al., 2020).

Moreover, findings indicate that the proliferation of e-commerce in Bangladesh is relatively slow when compared to countries with greater digital savviness. Based on the results of the research on the potential of digital marketing in Bangladesh to create effective interaction between a company and the consumer, the study found that technological obstacles and a lack of familiarity with online platforms are barriers to the broader involvement (Akter et al., 2020). This accentuates the importance of user-friendly systems and educational campaigns which can span the divide between resistance and the establishment of consumer trust in the e-commerce platforms.

Some of the major factors affecting online shopping behavior were found in Bangladesh (Terziu, 2020). These include:

Socio-economic factors: Income, education, and employment status are important consumer decision considerations.

Trust and Security: Consumers need to trust online platforms and feel secure in making online purchases.

Internet access and digital literacy: Digital literacy and Internet penetration are positively associated with online shopping behavior.

Cultural factors: Cultural norms have a considerable influence on shopping habits, product preferences, and attitudes towards online consumption.

As the online shopping industry grows in Bangladesh, businesses need to take these factors seriously when devising their strategies. Customer loyalty can be achieved by providing superior customer service and reliability, which lead to long-term relationships. Investing in staff training, personalizing services and engaging with customers on a consistent basis are all effective ways that firms can stand out in a competitive marketplace. Additionally, businesses that actively seek consumer feedback and adapt their strategies to suit changing preferences will be able to stay relevant and increase their standing in the digital marketplace.

4.1 Descriptive Statistics:

As shown in the table, there were 1,180 respondents: 215 (18.2%) with education below undergraduate level, 285 (24.2%) with education at the graduate level, 523 (44.3%) with education at the post-graduate level, and 157 (13.3%) with education of various professional courses.

The rise of internet penetration in Bangladesh has had a profound effect on online consumer behavior. Consumers know more and are more discerning than ever before, as consumers have been able to shop online and pre-purchase research has increased on the web. These customers have increased expectations regarding the quality of the product, customer service and shopping experience. As a result, businesses in Bangladesh are adapting their strategies to cater to these changing expectations, staying competitive in the dynamic digital landscape.

4.2 Cross Tabulations:

The table shows the distribution of income of the respondents by age groups, by occupation groups and income groups. Regarding income, the number of business respondents reported the following incomes for the 16-25 age group: up to BDT 20,000 (31.6), BDT 20,001-50,000 BDT (97.2), BDT 50,001-100,000 BDT (110.7), BDT 100,001 (25.5). Trends for this age group were similar, but with a greater concentration in the middle incomes. For the 26-40 age group, business and professional respondents were mainly in the BDT 20,001-100,000 range. Respondents above the age of 40 across all occupations were concentrated in the BDT 50,001-100,000 range. These trends are consistent with income differences by age and occupation, and are indicative of the socio-economic diversity of the respondents.

4.3 Independent Sample T-Test

An independent sample t-test was used to investigate inferential aspects of online buyer behavior. This test is appropriate for comparing a continuous variable between a categorical one that has 2 or more categories. Descriptive statistics (means, standard deviations, standard errors) were initially presented in terms of results and then followed by t-test results in order to test the research hypotheses. In this paper the alternative hypothesis was the one considered.

4.4 One-Way ANOVA

One-Way Analysis of Variance (ANOVA): This is a statistical technique which tests to see if there are statistically significant differences between the means of three or more independent groups. It is a strong alternative to the nonparametric Kruskal-Wallis test (Ostertagova, Ostertag and Kovac, 2014).

One-way ANOVA is a test of independent normal errors with equal variances between groups. Breaking these assumptions can have an impact on the type I error rate of the F-test, which will require robust alternatives (Chen, Zhao & Zhang, 2002). Assuming that ANOVA assumptions are satisfied, it is often more powerful than Kruskal-Wallis, but the latter remains a powerful alternative if normality or homogeneity of variance is violated (Bewick, Cheek and Ball, 2004; Nayak and Hazra, 2011).

After ANOVA has shown a significant difference, post-hoc tests (e.g. Tukey's Honest Significant Difference - HSD) are used to locate the group differences while maintaining the familywise error rate (Hochberg & Wold, 1989).

Key Concepts:

a) Independent Variable (Factor): The multiple-level categorical variable of interest (e.g. types of diet: low-carb, low-fat, balanced)

b) Dependent Variable: The outcome variable you are measuring (e.g. weight loss).

c) Null Hypothesis (Ho): Mean of all groups is the same.

d) Alternative Hypothesis (H1): One or more variances is different.

Assumptions: Normality, Homoscedasticity, independence.

Steps: Formulate hypotheses, specify level a (a = 0.05), calculate the F-statistic (between group variance divided by the within group variance), compare it with the critical value; if Ho is rejected do post-hoc tests.

For example, if you were comparing weight loss between 3 types of diet, ANOVA will tell you if there is a significant difference between groups and post-hoc testing tells you the actual differences between the groups.

4.5 Correlation Analysis

Bivariate Pearson correlation was used to determine relationships between online buying intention variables (overall web store atmosphere, perceived ease of use, shopping intangibles, perceived usefulness, perceived trust, perceived benefits, perceived risk, and buying intentions). This approach quantifies the nature and magnitude of linear associations between continuous variables and tests for the stability of such associations over the general population.

4.6 Regression Analysis

Regression analysis is the widely used statistical method that enables analysis of the relationship between dependent and independent variables. In this study, stepwise regression was used to find out the most significant predictors of online buying behavior. Stepwise regression is a procedure in which independent variables are added to or deleted from the model based on statistical significance to form an optimum set of predictors.

The main purpose of applying stepwise regression is to assess the impact of independent variables on the dependent variable by applying F-tests and t-tests. Then, both forward selection and backward elimination methods are used: after each iteration the model is examined for non-significant variables and, if necessary, these variables are eliminated. Stepwise regression uses two levels of significance to determine which variables to include in the model; one for entering and one for deleting variables. The probability of adding new variables is lower than the probability of removing variables in order to avoid that the procedure stops in an infinite loop.

This approach provides the usefulness of retaining only those variables that had the greatest influence on online purchase intention-perceived benefits, perceived usefulness, perceived trust, shopping intangibles, webstore atmosphere, and perceived risk-to draw clear conclusions about their effect on online purchase intention.

4.7 Path Analysis

Path analysis is used to test hypothesized relationships among variables in the framework of structural equation modeling (SEM) (Bollen, 2002). The relations of Webstore atmosphere -> Shopping tangibles, Perceived ease of use -> Perceived usefulness, Perceived ease of use -> Shopping tangibles, Perceived usefulness -> Perceived benefits, Perceived risk -> Perceived trust, Shopping tangibles -> Perceived trust, Perceived benefits -> Buying intention, and Perceived trust -> Buying intention were modeled in a path model.

4.7.1 Model Estimation

The model estimation was based on the PLS-SEM algorithm as suggested by Lohmoller (1989) with the path weighting scheme and the default SmartPLS settings: a maximum number of iterations of 300, a convergence threshold of 10-7, and equal initialization indicator weights. Convergence of the algorithm was confirmed by checking that the stop criterion was attained instead of the iteration limit. PLS-SEM is known for its strong convergence properties even in complex market research situations (Henseler 2010).

Path model: Latent variables and their indicators are shown in the path model diagram. Standardized regression coefficients are shown along the paths and R2 values are reported for endogenous constructs. Results revealed that the Perceived Benefits has the most significant influence (0.705) on Buying Intention followed by Perceived Trust (0.301). Combined together these factors explain 78.2% (R2 = 0.782) of the variance in the buying intention construct. Interrelations between the exogenous variables perceived usefulness, perceived quality, perceived benefits and perceived trust are also studied with the aim of understanding their combined impact on the model.

4.8 Bootstrapping

Bootstrapping is a nonparametric resampling method used to test statistical significance of PLS-SEM estimates (path coefficients, Cronbach's alpha, HTMT ratios, and R2). The statistical significance of each path coefficient is evaluated on the basis of a two-tailed t-test, at $t > 1.96$ significance level. This procedure permits strong inference without assuming that the data have a normal distribution.

4.9 Key Insights of this chapter

The study results are very supportive of the theoretical model of online consumer behavior. In particular, perceived usefulness, perceived trust, perceived benefits, shopping intangibles and webstore atmosphere proved significant predictors of online purchase intention. Stepwise regression analysis found overall perceived benefit was the strongest predictor, followed by perceived trust, and illustrates the importance of convenience and confidence for online shopping decisions.

Perceived usefulness was found to be the most important motivator for online purchase, as in other research (Chiu et al., 2009; Dash & Saji, 2008; Venkatesh & Davis, 2000). On the other hand, perceived risk had a negative effect on purchase intention, which supports the argument that issues such as payment security and delivery reliability continue to determine consumer behavior in Bangladesh (Biswas and Biswas, 2004; Forsythe et al., 2006; Zendehdel et al., 2015). While an important variable, trust was less important than perceived usefulness and risk, probably because of the study sample being existing consumers familiar with online shopping.

The demographic analysis showed that the most active online shoppers are young adults (16-40 years). Additionally, differences between education, income, and occupation suggest that retailers should customize their approach to appeal to their market segments. For example, younger and more educated consumers might prioritize the website's functionality and usability, whereas older or lower-income consumers might prioritize the website's trust and security features.

CHAPTER FIVE

CHAPTER 5: FINDINGS, CONCLUSION & MANAGERIAL IMPLICATIONS

This chapter summarizes the main findings from the primary analysis and combines them with the study's objectives. It also offers conclusions, managerial implications, and directions for future research.

5.1 Findings of the Study

A wide variety of insights into consumer behavior in online shopping has been extracted from the primary survey data. The results are subdivided depending on the statistical methods used:

Descriptive Statistics

Chi-Square Test

t-Test

One-Way ANOVA

Correlation Analysis

Regression Analysis

PLS Structural Equation Modeling (PLS-SEM)

According to the data analysis derived from the primary survey, it was found out several results. The study was conducted using several statistical methods such as Descriptive Statistics, Chi-Square Test, T-Test, One Way ANOVA, Correlation, Regression and PLS-SEM to obtain meaningful findings.

5.1.1 Major Observations from Descriptive Statistics.

Table X below shows the snapshot of major results from the descriptive statistical analysis. These results provide an overview of the demographic characteristics of respondents, internet usage patterns and online shopping-related behaviors that serves as the basis for inferential analysis.

The descriptive statistics show us the following points:

The main category of consumers are postgraduate degree holders (44.3%), then graduates (24.2%), which means that highly educated customers prevail in the sample.

About 18.2% of the respondents had education below undergraduate level and 13.3% were following a professional course, which indicated that there was a wide range of educational qualifications.

With the rise in internet penetration in Bangladesh, there is an increase in the number of people spending time on online shopping and researching products before making a purchase.

Increasing consumer expectations: Consumers have higher expectations for product quality, customer service, and ease of use, a direct reflection of an online environment that is becoming more informed and discerning.

Bangladeshi businesses are slowly adopting digital strategies that are in line with changing consumer needs and staying competitive in the digital space.

5.1.2 Summary of Results of Descriptive Statistics

The descriptive statistics give a snapshot of respondents' demographic and behavioral characteristics. The results provide baseline data for additional statistical testing and analysis.

5.1.3 Important results of Chi-Square Test

The Chi-Square analysis showed that there is a significant difference in frequency of online shopping and length of time in online shopping activity according to marital status.

5.1.4 Key Findings of T-Test

An independent samples t-test was used to analyze the differences between male and female consumers' online shopping behavior. The results suggest important differences between male and female respondents in respect of:

General Webstore Atmosphere:

Total Shopping Immaterials

Total Perceived Usefulness

Overall Perceived Benefits

Overall Perceived Risk

Overall Buying Intention

This suggests that gender is a relevant factor for understanding online consumer perceptions and behaviors.

5.1.5 Summary of Important Results of One-Way ANOVA Test

One-way ANOVA was used to compare across age groups. The results show that age is a significant influence on perceptions of:

Webstore Atmosphere

Combined Perceived Ease of use

However, there was no significant difference in the overall purchase intent of different age groups. This suggests that while the perceptions of buyability and ease of use among shoppers differ according to age group, the final purchase intent among generations is largely consistent.

5.1.6 Highlights of Correlation Analysis

Correlation analysis confirmed that there were strong relationships between buying intention and several of the predictor variables. The results indicate the following to be the correlation of overall buying intention with:

Overall Perceived Benefits

Overall Perceived Trust

Overall Shopping Non-tangibles

Total Perceived Usefulness

Total Webstore Atmosphere

Combined Perceived Ease of Use

5.1.7 Important Conclusions of Stepwise Regression Analysis

Stepwise regression identified the relative contribution to overall buying intention of predictors. The Perceived Benefits was the strongest predictor, followed by Perceived Trust, Perceived Ease of Use, Shopping Intangibles, Webstore Atmosphere, and lastly the Perceived Risk made the weakest contribution.

5.1.8 PLS-SEM Path Study Findings

PLS-SEM results supported the regression results that:

Perceived Benefits have the largest influence on (buy intention) (beta = 0.705).

Perceived Trust also has a secondary, but significant effect (b = 0.301).

Overall, these constructs account for 78.2% (R2) of the variance in buying intention. Further, both perceived benefits and perceived trust are significant mediators between perceived usefulness and buying intention.

5.2 Managerial Implications

The results of this study offer a number of practical implications for managers and e-commerce practitioners:

a) Enhancing User Experience: E-commerce platforms like Amazon, Flipkart need to provide seamless, glitch-free user experiences. Conversion rates are diminished further by delays and technical hits during periods of high traffic.

b) Embracing AI Technologies: AI-powered personalization, predictive analytics, virtual mirrors, and augmented reality shopping experiences can mimic the physical shopping experience, boosting confidence and satisfaction in consumers.

c) Security and Trust: Secure payment gateways, multi-factor authentication, clear privacy policies, etc. to remove perceived risk. Retailers will have to educate consumers about emerging payment technologies like UPI in order to increase trust.

d) Enhance Logistics: On-time, error-free, and undamaged delivery, with easy return options and payment methods (including cash on delivery), can increase consumer loyalty.

e) Expanding Market Reach: Opportunities for growth can be found in tier-2 and tier-3 cities where marketers must deploy targeted approaches. Training of less experienced and female shoppers to increase the customer base.

f) Omni-channel Integration: The integration of offline and online shopping channels can provide a seamless shopping experience and boost engagement.

g) Positive Word-of-Mouth - Simple and transparent design, policies, and customer education can create positive word-of-mouth, further reinforcing consumer loyalty.

5.3 Scope for Future Research

The research project raises opportunities for further research:

a) Rural Focus: Unpack the online shopping habits in rural Gujarat and identify unique influencing factors.

b) Urban vs. Rural Comparison: Urban vs. Rural comparison to know the consumer behavior and better plan for targeted marketing strategies

c) Product Specific Analysis: Use analysis of popular product categories and related purchasing behavior to gain insights.

d) Purchase Intention Studies: Use to explore customer purchase intentions in greater depth in order to refine strategic interventions.

e) Cultural and Social Influences: Evaluate how cultural, social and psychological factors, including family roles, motivations, and religion contribute to human behaviour.

f) Segmenting Target Audiences: Segment adoption (early adopters, late majority, laggards) to help retailers to customize strategies.

g)Marketing Effectiveness: Analyze the impact of different marketing campaigns on consumer trust, perceptions and loyalty in online retail.

5.4 Conclusion

The current paper investigated consumer online shopping behavior using a variety of statistical methods, such as descriptive analysis, Chi-square, T-tests, ANOVA, correlation, regression, and PLS-SEM. Results consistently showed that perceived benefit and trust had the most influence on online buying intention, along with other factors, including ease of use, shopping intangibles and Webstore atmosphere. These results provide evidence that consumer orientations to online shopping are shaped not only by the channel's functional ease of use but by psychological support and trust in the channel. Managerial implications: The importance of e-commerce platforms to constantly innovate in areas of personalization, user experience, payment security, logistics, and omnichannel integration is emphasized. While perceived risks need to be assuaged, tangible and intangible benefits need to be maximized in order to drive customer loyalty and satisfaction.

Despite the strong implications from this study, it also points out limitations such as the analysis of a single region and the self-reported data. These limitations suggest future research avenues that examine rural-urban divides, cultural influences and product-specific purchase behaviors. By building on these dimensions, scholars and practitioners can better understand how consumer behavior online is dynamic, shaped by changing digital marketplace environments. Overall, the contribution of this study is not only to the theoretical understanding of the determinants of online shopping but also it has practical implications for marketers and retailers to maximize consumer engagement and attain sustainable growth in the e-commerce industry.

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APPENDIX

QUESTIONNAIRE:

Survey Questionnaire

Online Consumer Behaviour in Bangladesh: An Empirical Study

Researcher: Ali Mohammad Kowsar
Programme: Doctor of Philosophy (PhD) in Marketing
Department: Department of Marketing
University: University of Dhaka, Bangladesh

Participant Information and Consent

This questionnaire is administered solely for academic research purposes as part of a doctoral study at the University of Dhaka. All information provided will be kept strictly confidential and used only for research analysis. Participation is voluntary.

Section A: Demographic Information

Item	Description	Response
A1	Gender	Male / Female
A2	Age Group	16–25 / 26–40 / Above 40
A3	Marital Status	Married / Unmarried
A4	Family Type	Nuclear / Joint
A5	Family Size	< 2 / 2–4 / > 4
A6	Occupation	Business / Professional / Service / Homemaker / Student
A7	Education Level	Undergraduate / Graduate / Postgraduate / Professional
A8	Monthly Family Income (BDT)	<20,000 / 20,001–50,000 / 50,001–100,000 / >100,000
A9	Online Shopping Experience	<2 yrs / 2–4 yrs / >4 yrs
A10	Shopping Frequency	Weekly / Monthly / Occasionally / Rarely
A11	Preferred Payment Mode	COD / Card / Mobile Banking

Section B: Statements on Online Shopping

Response Scale: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

Ease of Use

Statement	1	2	3	4	5
Online shopping platforms are easy to use					
Online shopping saves time					
Products can be purchased at any convenient time					
Online shopping reduces dependence on salespersons					
Online payment systems are easy to operate					

Shopping Attributes

Statement	1	2	3	4	5
Online platforms offer a wide variety of products					
Product information is clear and sufficient					
Online platforms allow easy product comparison					
Reviews and ratings help purchase decisions					

Perceived Benefits

Statement	1	2	3	4	5
Online products are comparatively cheaper					
Discounts and promotions add value					
Online shopping helps save money					
Free delivery encourages online shopping					

Perceived Usefulness

Statement	1	2	3	4	5
Online shopping reduces physical effort					
Online shopping ensures privacy					
Online shopping suits busy lifestyles					
Order tracking systems are helpful					
Easy return policies motivate online shopping					

Perceived Risk

Statement	1	2	3	4	5
Product information may be misleading					
There is a risk of receiving defective products					
Online payments involve security risks					

The online purchasing process is complex					

Perceived Trust

Statement	1	2	3	4	5
Cash-on-delivery increases trust					
Reputed platforms are more trustworthy					
Secure payment gateways increase trust					
Customer reviews enhance trust					
Protection of personal data is essential					

Website Atmosphere

Statement	1	2	3	4	5
Website layout is visually appealing					
Website navigation is easy					
Fonts and colors improve readability					
Product presentation enhances confidence					

Purchase Intention

Statement	1	2	3	4	5
I intend to continue shopping online					
I prefer online shopping over traditional shopping					
I would recommend online shopping to others					

Thank You for Your Cooperation

Ali Mohammad Kowsar

Online Consumer Behavior in Bangladesh

University of Dhaka

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