# From Traditional Marketplace to Online Shop: Shifting Shopping Patterns among University Students in Bangladesh

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**Abstract**

The explosive rise of e-commerce has largely changed shopping habits around the world, and university students are one of the biggest groups to have changed their ways of shopping. In Bangladesh, the change from conventional to digital shopping has been visible with the help of mobile technology, the impact of social media, and also due to the ease of online shopping. The study identifies the drivers of online shopping acceptance among university students in Bangladesh through the lens of theoretical framework based on TAM, UTAUT and TPB. Quantitative method was employed, and the data were collected using simple random sampling from 384 students, determined based on 95% confidence level and 5% margin of error, from three different universities in Bangladesh. The results suggest that the convenience, quickness, and the assortment of the product are the key motivations that drive students to online shopping. Besides, social media networks, mainly Facebook and Instagram, play an incredibly significant role in deciding to buy the students. However, issues like the delay in delivery, high delivery charges, and the question of products' authenticity have proven to be the barriers to the online shopping experience. The research advocates that a reduction in delivery fees, better logistics operations, and providing student discounts will lead to an increase in adoption of e-commerce in Bangladesh. Besides, it is essential to instill customer trust in e-commerce platforms by using secure payment systems and trustworthy products and delivery services.

**Keywords**: Online Shopping, e-commerce, University Students, TAM, UTAUT, TPB, Bangladesh

## 1. INTRODUCTION

Shopping behavior has experienced a profound shift in the digital age primarily owing to technological progress such as the internet and mobile applications [1]. University students are the most affected by this change, as a group generally

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more connected, tech-savvy, and open-minded towards digital innovations [2]. The rise of e-commerce has caused a transition from shopping in brick-and-mortar stores to digital shopping through mobile applications and websites. This transformation is driven by multiple factors such as economic conditions, technological infrastructure, and the increasing ownership of smartphones [1], [3], [4]. The exploration of this transition is not only an insight into consumer behavior but also a tribute to how technology is shaping the retail industry in the future.

Statista unveils the fact that the e-commerce sector has been growing rapidly and the retail via Internet sales marked 17% of total global retail sales in 2024, amounted to over seven trillion U.S. dollars, a figure expected to exceed 10.4 trillion U.S. dollars by 2028 [5]. The speed of e-commerce expansion is due to the easy access people have to the internet with their smartphones and the increasing speed of the mobile internet. Moreover, the COVID-19 pandemic played a role in increasing this trend even more, because the shift to e-commerce was faster and more direct, especially among the younger population [1]. Young people in the United States, the United Kingdom, and Japan, in particular, are an example of the group that has increased the usage of e-commerce services, making online shopping, airport familiar with, their favorite way of buying goods due to the time it saves and the range of products it provides and the variety of products available at their fingertips [6], [7], [8].

The digital transformation is also emerging in South Asia, but the rate at which it occurs is not uniform due to a variety of factors such as national economic development, technological infrastructure, and cultural norms. Indeed, nations like India, Pakistan, and Sri Lanka have experienced a boom in e-commerce accessibility, which is undoubtedly propelled by youthful consumers [9], [10], [11]. For instance, the urban areas of India have as many as 80% of young consumers shopping online, a number which would be greatly reduced without mobile shopping, the most popular method [12]. In comparison, the situation in Bangladesh is not as fast, which can be attributed to some reasons such as the issues related to limited infrastructure, untrustworthiness of the digital payment system, and traditional shopping preferences. Nonetheless, despite all these obstacles, university students in Bangladesh, especially those located in urban areas, have started making the jump to digital platforms for their shopping needs, and the main reasons for doing so are the ease, competitiveness of the prices, and the possibility of shopping from home [13], [14].

Over the past few years, the growth of internet penetration and the usage of mobile phones in Bangladesh has been considerable and mainly among the youth. As per the Population and Housing Census 2022, 30.69% of the total population aged 5 years and above are identified as internet users, while the percentage is 36.92% for those aged 15 years and above [15]. Now, e-commerce

sites such as Daraz, Ajkerdeal, and Pickaboo are the place of choice, especially for university students in Dhaka and other major cities [14]. In addition to various advantages, there are also issues with reliability of the sites and the late delivery of products and students' lack of trust in the security of online payment systems were the main concerns mentioned in previous studies [16], [17]. However, the more frequent use of social media platforms such as Facebook, Instagram, and TikTok by students has made this paradigm shift even more pronounced.   [18], [19]. The COVID-19 pandemic has played a pivotal role in the emergence of online shopping in Bangladesh at an incredibly fast pace. [20]. The change of consumer behavior was not only due to the need for convenience and safety caused by the pandemic but also was part of the global trend of increasing digital consumption. [20], [21], [22].

Even though online shopping is gaining in popularity, there have been only a few studies that concentrate on the online shopping behavior of university students in Bangladesh, specifically the motivating factors of why they buy online. Most of the existing e-commerce research in the country is limited to either the entire population or the urban customers, failing to take the students' characteristics into account as a separate target audience. Furthermore, though the blocking factors of e-commerce adoption in Bangladesh have been highlighted in some studies, the few studies have given weight to the change inducers or have presented the history to know how the mode of shopping has been turned over from only on-site purchases to electronic transactions. The main purpose of the study is to investigate the transition from traditional to digital shopping, find out the factors that cause this change, and evaluate the role of mobile devices and e-commerce platforms in affecting student buying habits. Through the analysis of these changes, this research intends to offer useful insights for businesses that need to be more adapted to the requirements of university students and for policymakers that want to create a more digital shopping inclination in Bangladesh.

## 2.    EVOLUTION OF SHOPPING PATTERNS

Substantial advancements in technology, society, and economics over the centuries have profoundly influenced purchasing behaviors, evolving from the barter system to modern-day online shopping. The evolution of Shopping Patterns as shown in Figure 1.

Barter System (Prehistoric Times to Ancient Civilizations): The barter system was first used by people to trade their goods directly for other goods and services that they needed. It was restricted by the requirement of a "double coincidence of wants," which meant that both parties needed to have items the other person wanted for a trade to happen [23].

Use of Money (Ancient Civilizations to Middle Ages): Around 600 BCE, money started being used as a more convenient way of making transactions. The use of coins and later paper money allowed trade to be partaken across regions with increased ease, and as a result, the idea of a marketplace was born. Initially, the market was through entities like bazaars but later was done in a more organized structure [24].

Department Stores (19th Century): In the 1800s, department stores became extremely popular, especially in big and industrialized cities. In these stores, people found a wide array of goods all under the same roof, thus shopping became more comfortable and feasible for the expanding urban population. An example of such a kind of store was Macy's which was located in New York City and was at the same time a commercial giant and a cultural center [25].

Mail-Order Catalogs (Late 19th to Early 20th Century): Through the reach of railroads and telegraph networks, catalog shopping experienced great popularity. Consumers were able to make requests from a catalog and the products would be transported to their places. It was during this time that shopping patterns started to change and away from the traditional shop visits [26].

Supermarkets and shopping malls (Mid-20th Century): After the Second World War, the rise of supermarkets and shopping malls was seen, especially in suburban regions. These places not only enabled people to get goods from a wider selection but also made shopping more convenient and quicker as they started self-service shopping [27].

Online Shopping (Late 20th Century to Present): Online shopping became a game-changer back in the 1990s when Amazon (1994) and eBay (1995) took the world by storm with e-commerce platforms. The most significant advantage of online shopping was that consumers could buy products from any place and at any time ignoring the need of going to the store physically. In the 2000s, the emergence of the mobile era just served to speed up the process of online shopping even more and take its convenience to the next level [28].

Current Trends (21st Century): Online shopping has dramatically flourished in modern days and the means of today's tech-savvy customers are becoming smarter, thereby gaining new tools in the form of websites and apps to acquire a range of products, starting with clothes, and ending with groceries. The inclusion of AI, personalized offers, and on-demand, such as same-day or the next day service, has made online shopping an indispensable part of the consumer world [28].
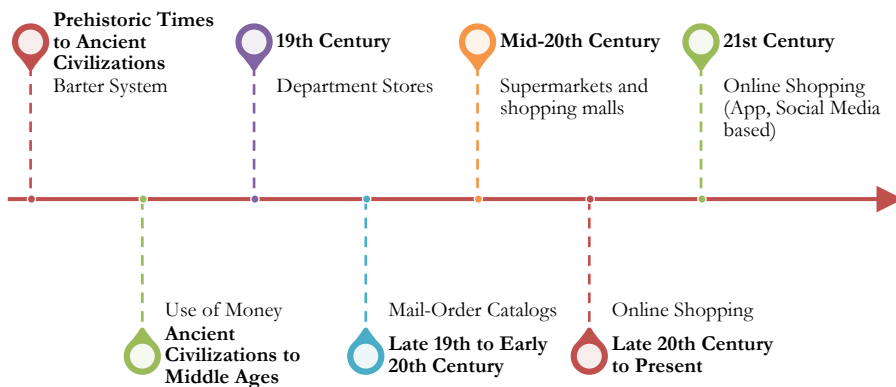
**Figure 1.** Evolution of Shopping Patterns

## 3.    THEORETICAL FRAMEWORK

The concept that has been employed as the theoretical framework of this research derives its significance from the fusion of various theories and models which elucidate consumer behavior, technological adoption, and the transition from traditional shopping to digital shopping among university students in Bangladesh. The subsequent theories will direct the exploration of the changing shopping behaviors of university students in Bangladesh, notably in the digital era context:

### 3.1.    Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was introduced by Davis (1989) and has since become one of the most widely utilized models to comprehend why and how users opt to select and use a particular technology [29]. As argued by the model, the concept of ease of use and the perceived usefulness are the two significant antecedents which affect the innovation adoption. In connection with the research, TAM can be used to explain why university students in Bangladesh are getting more and more into online shopping platforms [30]. The perception of students regarding the ease of use of mobile shopping apps and the benefits of them, say the convenience and time that shopping online can save them, can remarkably influence their decision to shop online.

1) Perceived Ease of Use (PEOU): The more user-friendly a shopping platform (e.g., mobile apps, websites) is simple and easy to navigate, the more likely students are to adopt it.
2) Perceived Usefulness (PU): The understanding of the online shopping which easily consumes time, save travel expenses, give access to a large

number of different kinds of products will lead the students to purchase more from online.

## 3.2. Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT), proposed by Venkatesh et al. (2003), builds on the TAM by adding other factors like social influence and facilitating conditions. The theory outlines four variables, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions that are the main drivers of technology adoption [31].

1) Performance Expectancy: Online shopping can be seen as useful by university students based in Bangladesh as it not only timesaving, but it also provides a wider range of products if compared to the traditional method of shopping.
2) Effort Expectancy: Students' interaction, their ability to choose products online, pay, and receive products could generate their loyalty to these sites.
3) Social Influence: University students are very much affected by their peers and social media fads. These platforms, such as Facebook, Instagram, and TikTok, are the ones responsible for students' potential purchasing activities through the presentation of promotions and product suggestions from peers and influencers.
4) Facilitating Conditions: The availability of mobile internet, security in terms of digital payment systems (e.g., bKash, PayPal), and the presence of reliable delivery services serve as the favorable factors that make using e-commerce platforms possible.

## 3.3. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), posits that individual behavior is guided by intentions that are controlled by attitudes, subjective norms, and perceived behavioral control [32]. This theory is able to be employed to find out of the university students make up their minds to go shopping on the Internet and if their activities are determined by their thoughts towards digital shopping or not.

1) Attitude: University students' attitudes toward online shopping (e.g., having a good feeling about saving time, discounts, or a range of options) will be the cause of their e-commerce intention.
2) Subjective Norms: The impulse of students is more by the behaviors of their peers and social media that will result in their choice of online shopping. Even in the case when they are not sure about their decision, students are still dependent upon others and the media, thus enjoying a greater likelihood to follow the behavior of their friends or influencers after observing the purchases made online.

3) Perceived Behavioral Control: Students' perceptions of their ability to reach the internet, employ digital payment methods safely, and cope with possible shipping problems will determine their willingness to carry out e-commerce transactions.

## 3.4. Analytical Framework

Based on the integration of these theories, the conceptual model for this study can be illustrated as shown in Figure 2.
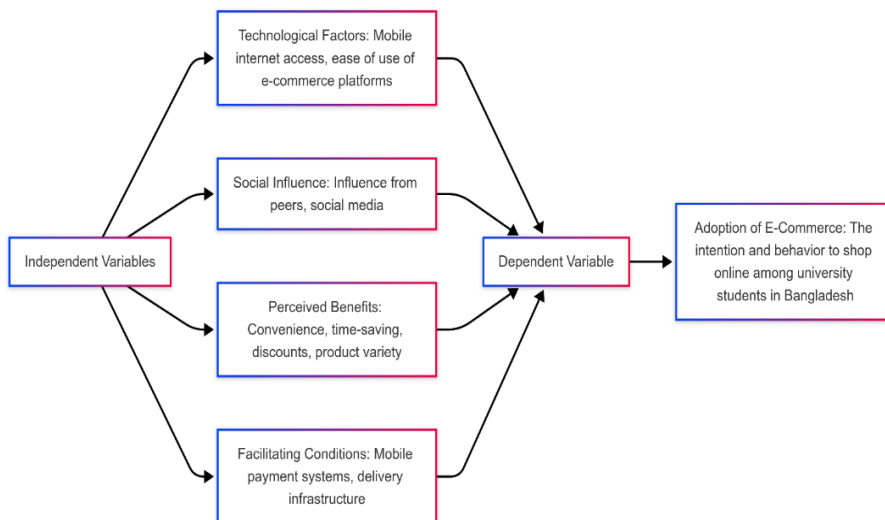


**Figure 2.** Analytical Framework based on TAM, UTAUT, TPB

## 4. METHODS

This study is quantitative in nature and uses descriptive research design to explore the factors involved in changing shopping patterns of university students in Bangladesh. Descriptive research is useful for finding out trends and summarizing the point of view of any aspects and the descriptive nature of a study has played a significant role in the comprehension of consumer behavior in the domain of e-commerce adoption [33]. The research steps as shown in Figure 3. Purposive sampling technique was used for the selection of three universities, two of them from the capital Dhaka named University of Dhaka and Gono Bishwabidyalay, and the other one from the northern part of the country Rangpur named Begum Rokeya University, Rangpur. The study population of this study was the university students, and the sample size was 384 determined with 95% confidence level and 5% margin of error, which ensures the gathered data become statistically significant. To select the respondent's, simple random

sampling technique was employed which provides every student with an opportunity of being selected as the respondent as this method provides unbiased, representative samples [34] and has been very useful in such type of studies [35], [36], [37].

Data was obtained from self-administered questionnaires that were distributed online through email and social media platforms, Facebook, WhatsApp, and Messenger. The questions used in the questionnaire were a mixture of closed-ended, open-ended and Likert-type scale with which the attitude of students toward e-commerce, online shopping convenience, and the effect of social media on the purchase decisions of the students were measured. The survey questionnaire consisted of six sections.
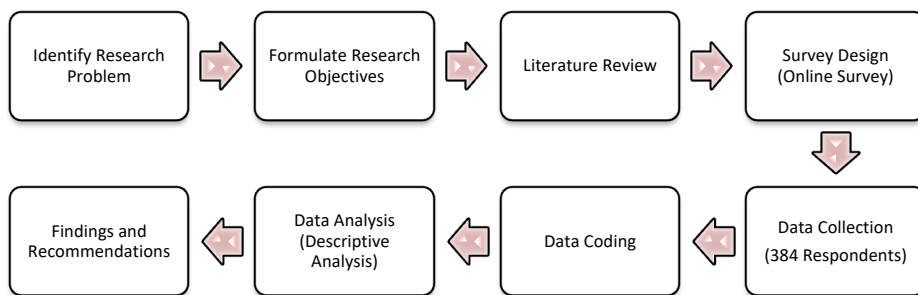


**Figure 3.** Research Steps

The first portion dealt with demographic information, while the remaining sections included questions on technological factors, social influence, perceived benefits, facilitating conditions, and adoption of e-commerce. Each segment contained six Likert scale questions. A five-point scale was used for the questions, with 1 being strongly disagree, 2 being neutral, 4 being agree, and 5 being strongly agree. The digital surveys were an excellent means of gathering data from university students, especially pursuing the new trend of being proficient in digital media [38], [39]. SPSS (Statistical Package for the Social Sciences) software version 25 was used for conducting descriptive analysis such as, frequencies, percentages, means, and standard deviations of the collected data. SPSS is widely known to be used in social science research because it has strong features for data processing and data summarization of large datasets [40].

The approach intersects with the code of research ethics, of which Babbie (2013) remarks that obtaining consent is essential in guarding the rights of the participants [41]. The study purpose, voluntary participation, and the right to skip any question or withdraw participation from any point of the survey were provided to the respondent. Written consents were mandatory to start the questionnaire. Though the study was self-administered and only capture the

behavior of university students only, the study aims to provide valuable insights into the evolving shopping behaviors of a specific demographic—university students in Bangladesh.

## 5.   RESULTS AND DISCUSSION

### 5.1.   Shopping Patterns among University Students

Table 1 presents the demographic characteristics of the respondents. In terms of gender, the sample consisted of 51.56% male respondents (n = 198) and 48.44% female respondents (n = 186), indicating a nearly balanced gender distribution. Regarding university affiliation, the majority of respondents were from Begum Rokeya University, Rangpur (48.18%, n = 185), followed by Gono Bishwabidyalay (26.04%, n = 100), and University of Dhaka (25.78%, n = 99). The distribution of respondents across year of study revealed that the largest group consisted of 1st-year students (34.11%, n = 131), followed by 2nd-year (19.27%, n = 74) and 3rd-year students (19.27%, n = 74). A smaller proportion of respondents were in their 4th year (5.73%, n = 22). With respect to monthly family income, the highest percentage of respondents (38.54%, n = 148) reported an income range of BDT 25,001 to 50,000, while 33.07% (n = 137) of respondents earned between BDT 10,000 to 25,000. A smaller proportion of respondents fell into the income range of BDT 50,001 to 100,000 (10.42%, n = 40), and only 2.86% (n = 11) reported earnings above BDT 100,000. Additionally, 10.10% (n = 41) of respondents reported a monthly family income below BDT 10,000.

**Table 1.** Demographic Information of the Respondents

|  |  | (f) | % |
|---|---|---|---|
| **Gender** | Male | 198 | 51.56% |
|  | Female | 186 | 48.44% |
| **University** | Begum Rokeya University, Rangpur | 185 | 48.18% |
|  | Gono Bishwabidyalay | 100 | 26.04% |
|  | University of Dhaka | 99 | 25.78% |
| **Year of Study** | 1st Year | 131 | 34.11% |
|  | 2nd Year | 74 | 19.27% |
|  | 3rd Year | 74 | 19.27% |
|  | 4th Year | 22 | 5.73% |
|  | Graduate/Post-Graduate | 83 | 21.61% |
| **Monthly Family Income** | Below BDT 10,000 | 58 | 15.10% |
|  | BDT 10,000 - 25,000 | 127 | 33.07% |
|  | BDT 25,001 - 50,000 | 148 | 38.54% |
|  | BDT 50,001 - 100,000 | 40 | 10.42% |
|  | Above BDT 100,000 | 11 | 2.86% |
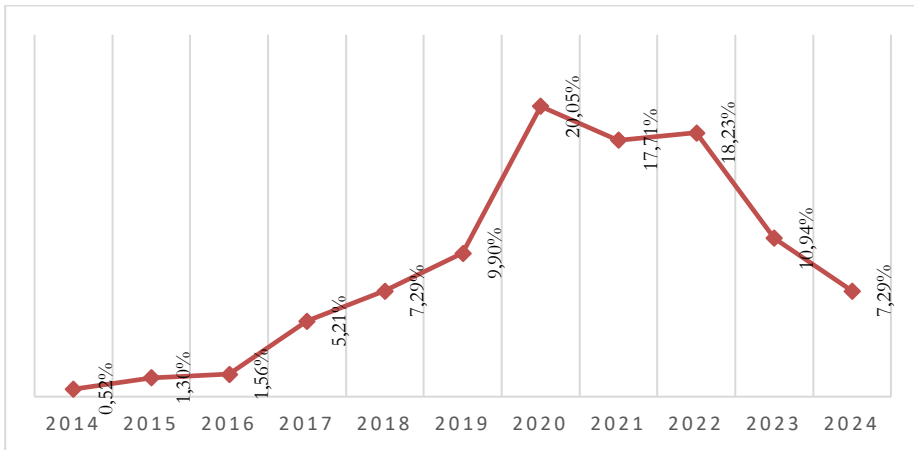
**Figure 4.** Starting year of online shopping.

Figure 4 shows the increasing trend of online shopping among university students from 2014 to 2024. The data reveals a steady rise, with a notable surge in 2020. In 2014, only 0.5% of respondents reported starting online shopping, and this gradually increased each year. By 2020, the percentage reached 20.05%, likely driven by the impact of the COVID-19 pandemic, which accelerated online shopping habits. After 2020, the trend continued to remain relatively high, indicating that online shopping has become a common practice among university students, with a consistent rise in adoption over the years.
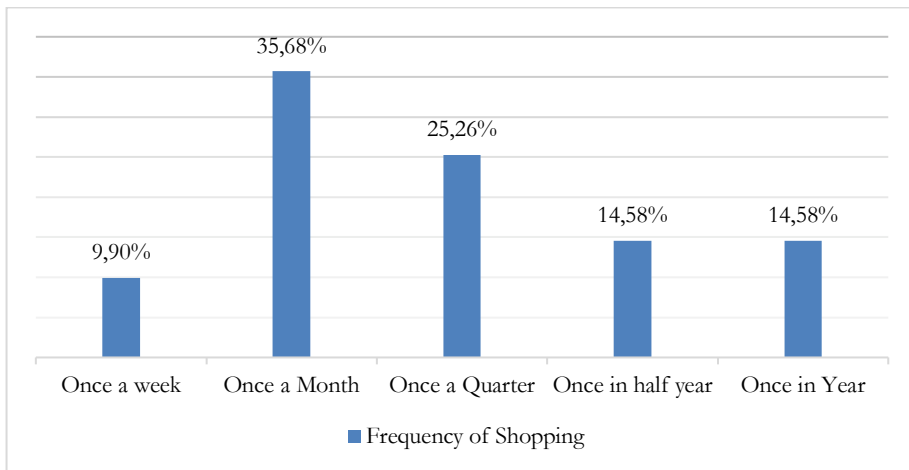


**Figure 5.** Frequency of shopping

Figure 5 presents the frequency of online shopping among respondents. The majority, 35.68%, shop once a month, followed by 25.26% who shop once a quarter. A smaller portion of respondents engage in online shopping once a week

(9.90%), once in half a year (14.58%), and once a year (14.58%). This distribution indicates that most respondents shop on a monthly or quarterly basis, with less frequent shopping seen in other categories.
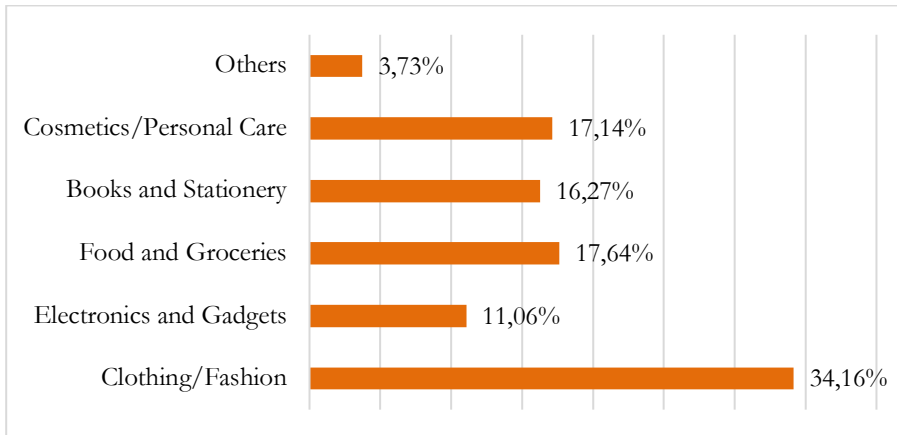


**Figure 6.** Types of Products Purchased through Online

Figure 6 shows the distribution of products purchased online by respondents. The most popular category is Clothing/Fashion, with 34.16% of respondents purchasing items from this category. Following this, Food and Groceries accounted for 17.64%, while Cosmetics/Personal Care and Books and Stationery both made up 17.14% and 16.27%, respectively. A smaller percentage of respondents purchased Electronics and Gadgets (11.06%), with other products being the least purchased category at 3.73%. This suggests that fashion and everyday essentials are the primary focus for online shoppers.
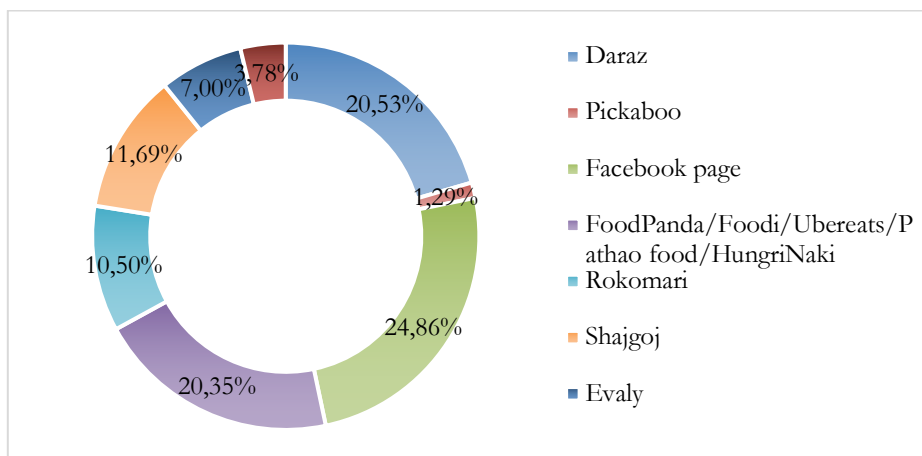


**Figure 7.** Online Shopping Platforms

Figure 7 shows the distribution of products purchased online by respondents. The most popular category is Clothing/Fashion, with 34.16% of respondents purchasing items from this category. Following this, Food and Groceries accounted for 17.64%, while Cosmetics/Personal Care and Books and Stationery both made up 17.14% and 16.27%, respectively. A smaller percentage of respondents purchased Electronics and Gadgets (11.06%), with other products being the least purchased category at 3.73%. This suggests that fashion and everyday essentials are the primary focus for online shoppers.
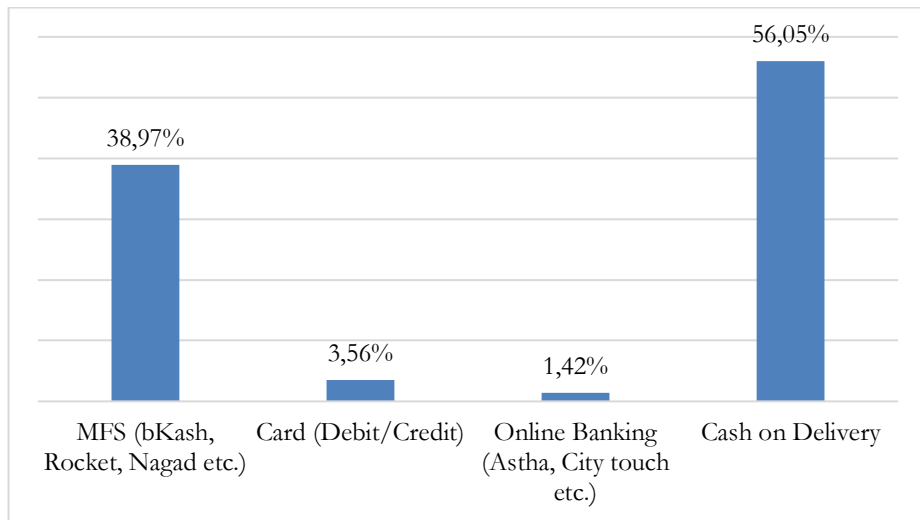


**Figure 8.** Payment Methods

Figure 8 illustrates the distribution of payment methods used by respondents for online shopping. The most popular payment method is Cash on Delivery, with 56.05% of respondents opting for this option. MFS (Mobile Financial Services such as bKash, Rocket, Nagad, etc.) follows with 38.97%, indicating a strong preference for mobile money services. A smaller percentage of respondents used Debit/Credit cards (3.56%) or Online Banking options like Astha or City touch (1.42%), suggesting that cash-based payments and mobile financial services dominate the online shopping landscape.

**Table 2.** Technological Factors

| Indicators | Mean | Average |
|---|---|---|
| I use mobile internet to shop online. | 4.08 | |
| I find e-commerce platforms easy to navigate on my mobile device. | 3.86 | |
| I am confident in using mobile shopping apps for purchases | 3.64 | 3.57 |
| I do not experience technical difficulties (e.g., slow loading, site crashes) while shopping online. | 2.88 | |

| Indicators | Mean | Average |
|---|---|---|
| I am satisfied with the mobile internet speed available for online shopping in my area | 3.39 | |
| I am comfortable using mobile apps for product selection and purchase. | 3.59 | |

Table 2 presents the mean scores for various technological factors influencing online shopping. The highest mean score of 4.08 reflects the strong reliance on mobile internet for shopping. Respondents also reported that e-commerce platforms are generally easy to navigate on mobile devices (mean = 3.86). Confidence in using mobile shopping apps is moderate with a mean of 3.64, while comfort with mobile apps for product selection scored 3.59. Technical difficulties, such as slow loading and site crashes, were reported with a lower mean of 2.88, indicating room for improvement. Lastly, satisfaction with mobile internet speed scored 3.39, suggesting moderate satisfaction. The average mean for all indicators is 3.57, reflecting an overall positive but mixed experience with mobile shopping technologies.

**Table 3.** Social Influence

| Indicators | Mean | Average |
|---|---|---|
| I am influenced by recommendations from my friends on social media when shopping online. | 3.42 | |
| I follow influencers (celebrity/reviewer) on social media who suggest products for online purchase | 3.12 | |
| I make purchases based on online recommendations from influencers. | 3.18 | |
| I often influenced by online shopping ads on platforms like Facebook or Instagram | 3.58 | 3.40 |
| I always see the ratings and reviews of products before online purchase. | 4.08 | |
| I feel pressured to buy products online if my friends or someone in my social network are purchasing them. | 3.00 | |

Table 3 presents the mean scores for various social influence factors affecting online shopping behavior. The highest mean of 4.08 reflects that respondents consistently check ratings and reviews before making online purchases, emphasizing the importance of product evaluations. Online shopping ads on platforms like Facebook and Instagram also play a significant role, with a mean score of 3.58, indicating a moderate influence. Respondents are moderately influenced by recommendations from friends on social media (mean = 3.42) and follow influencers for product suggestions (mean = 3.12). The influence of online recommendations from influencers also had a moderate mean score of 3.18. However, the lowest mean of 3.00 suggests that respondents feel less pressured to buy products based on their friends' or social network's purchases.

The average mean for these indicators is 3.40, indicating a moderate overall influence of social factors on online shopping behaviors.

**Table 4.** Perceived Benefits

| Indicators | Mean | Average |
|---|---|---|
| I find online shopping more convenient than traditional in-store shopping. | 3.21 | |
| I shop online because it saves me time and cost compared to traditional shopping. | 3.82 | |
| I often shop online to take advantage of discounts and promotions. | 3.72 | 3.69 |
| I appreciate the variety of products available online that are not available in physical stores. | 3.87 | |
| I find it easier to read reviews of products online than to ask salespeople in stores. | 3.73 | |
| I can quickly compare prices and products when shopping online. | 3.79 | |

Table 4 presents the mean scores for various perceived benefits of online shopping. The highest mean of 3.87 reflects that respondents appreciate the variety of products available online that are not accessible in physical stores. This is closely followed by the mean of 3.82, indicating that respondents value the time and cost savings offered by online shopping compared to traditional shopping. The ability to compare prices and products quickly while shopping online also received a positive response, with a mean score of 3.79, suggesting that efficiency is a key benefit. Respondents also shop online to take advantage of discounts and promotions (mean = 3.72) and find it easier to read reviews of products compared to asking salespeople in stores (mean = 3.73). The average mean for these indicators is 3.69, indicating that online shopping is generally perceived as offering significant benefits, particularly in terms of product variety, timesaving, and ease of comparison.

**Table 6.** Facilitating Conditions

| Indicators | Mean | Average |
|---|---|---|
| I have access to multiple secure payment methods (e.g., bKash, PayPal, debit/credit cards) for making online purchases. | 3.67 | |
| I trust the product and delivery services of online shopping platforms. | 3.18 | |
| I find it easy to make online payments securely. | 3.53 | 3.57 |
| The availability of customer support (e.g., chat, phone support) makes online shopping easier for me. | 3.69 | |
| I can easily find all the necessary information (product details, reviews, shipping info) when shopping online. | 3.76 | |
| The platforms I shop from have clear return and refund policies that facilitate my purchasing decisions. | 3.59 | |

Table 5 presents the facilitating conditions that influence online shopping behavior, measured through various indicators. The highest mean score (3.76) was recorded for the ease of accessing necessary product information, including details, reviews, and shipping info, indicating its significant role in supporting online shopping. Availability of customer support (mean = 3.69) and access to secure payment methods (mean = 3.67) also emerged as critical facilitating factors. Other relevant aspects include ease of secure online payment (3.53), clarity of return and refund policies (3.59), and trust in product and delivery services (3.18). The overall average mean score of 3.57 suggests a generally favorable perception of the facilitating conditions among respondents.

**Table 5.** Adoption of E-Commerce and Future Directions

| Indicators | Mean | Average |
|---|---|---|
| I intend to shop online more often in the future. | 3.65 | |
| I often try new online shopping platforms and apps. | 3.21 | |
| I am likely to recommend online shopping to my friends and family. | 3.48 | 3.33 |
| I feel that online shopping is an essential part of my lifestyle. | 3.45 | |
| I make a significant portion of my purchases online. | 3.30 | |
| I believe online shopping is more reliable than in-store shopping. | 2.89 | |

Table 6 illustrates the respondents' attitudes toward the adoption of e-commerce and its future trajectory. The highest mean score (3.65) indicates a strong intention to shop online more frequently in the future. Participants also showed a moderate likelihood to recommend online shopping (mean = 3.48) and considered it an integral part of their lifestyle (mean = 3.45). Trying new platforms (3.21) and the perception of online shopping reliability compared to in-store shopping (2.89) received lower mean scores, suggesting some reservations remain. The overall average mean of 3.33 reflects a generally positive, yet cautiously optimistic, outlook on the continued adoption of e-commerce.
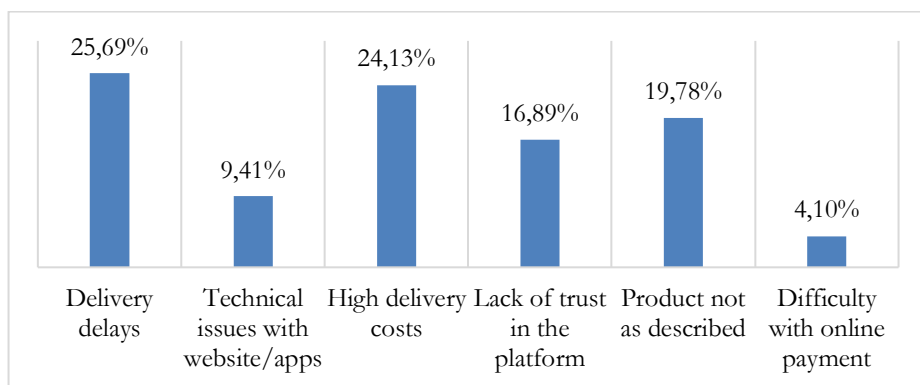


**Figure 9.** Challenges in Online Shopping

Figure 9 highlights the primary challenges faced by consumers in online shopping. The most frequently reported issue is delivery delays (25.69%), followed closely by high delivery costs (24.13%) and discrepancies between product descriptions and actual items received (19.78%). Lack of trust in platforms (16.89%) and technical issues with websites or apps (9.41%) also present notable concerns. In contrast, difficulty with online payment (4.10%) was reported less frequently. These findings underscore the importance of improving logistics, cost transparency, and platform reliability to enhance the overall online shopping experience.

## 5.2.  Discussion

The findings of the study exhibit a remarkable shift in terms of the shopping behavior of Bangladeshi university students, especially with a notable increase in online shopping practices during and after the COVID-19 pandemic. This shift from the traditional pattern of shopping from market to online shopping is the result of the advancement of technology, globalization, and benefits offered by digital platforms such as affordability and ease of use. The trends of gradual adoption of online shopping in Bangladesh align with the global transformation of e-commerce, though there are perceptible regional variations that influence the adoption and flourishing of online shopping.

The growth of e-commerce worldwide has been propelled by the widespread internet accessibility and availability of smart devices [42]. In developing countries, younger customers adopt online shopping due to its ease and time-saving features. The pandemic hastened the growth of e-commerce, especially among young consumers who were already habitual to technology [43]. The pandemic also had a crucial impact on Bangladesh and this trend is also apparent in Bangladesh, where students are using online shopping platforms such as Daraz, Akjerdeal, Rokomari, and social media Pages for products like clothing, electronics, books, and groceries.

The findings also demonstrate the influence of social media in shaping online shopping choices of university students, where Facebook, Instagram, and YouTube have a significant role in purchasing decisions. The findings are compatible with worldwide studies that have highlighted the growing use of social media as advertising tools to connect with younger customers. Different factors such as targeted advertisements in social media by influencers influence the shopping behaviors of students [44], [45]. Sometimes, peer suggestions and social influence work as drivers behind online shopping from social media. Culture and socio-economic factors also influence the e-commerce adoption of university students in Bangladesh. Many students are still dependent on their family. Therefore, parental attitudes towards online shopping also influence the behavior of the students. Socioeconomic disparities also influence the e-

commerce adoption of the students. Urban and higher income families are more likely to accept online shopping while rural and lower income students are less likely to adopt, creating a divide in adoption pattern. These factors are key drivers of the transformation from the traditional method of shopping to online shopping in Bangladesh.

Online shopping in Bangladesh has grown slowly compared to the neighboring countries, where online shopping is a common feature of e-commerce. In India, a significant number of young consumers are using online shopping platforms through apps on their mobile [46]. In Bangladesh, online shopping is gradually becoming popular because of the perceived benefits of online shopping like time reduction, product availability, and ease of use. However, it is still hampered by challenges such as inadequate technological infrastructure, lack of confidence in delivery services, high delivery charges, and differences between described products and actual products which are the most highlighted challenges by the consumers. These factors highlight a unique set of challenges in Bangladesh compared to the countries with more developed digital e-commerce [47], [48]. In countries like India and China, where online shopping practices have gained popularity, they made notable investments in enhancing delivery systems, digital payment methods, and customer trust to solve some of these issues [49], [50]. In Bangladesh, investment in proper infrastructural development and logistical support are necessary to ensure the smooth experience expected by the customers from online shopping.

The findings also demonstrate that university students in Bangladesh strongly prefer the cash-on-delivery payment method which indicates their lack of trust in digital payment systems. These findings are also consistent with other developing countries [51], [52]. However, in developed countries, digital payment systems like credit cards, online banking, and mobile financial systems are more frequently used methods [53], [54]. Though the popularity of mobile financial systems such as bKash, Nagad, and Rocket is increasing, the lack of trust highlighted that the security system in digital payments and customer services is not sufficient. Proper systems should be developed to enhance the trust of the customers in the e-commerce ecosystem of Bangladesh.

The shopping pattern of youth has shifted from the traditional method of shopping to online shopping with the growing popularity of e-commerce worldwide. However, trust issues have become the prime concern regarding the reluctance to adopt online shopping in Bangladesh. They lack trust not only in the quality of products but also in online payment systems, though these issues can be somewhat mitigated by the growing usage of mobile financial services. Other studies also highlighted the importance of building customer trust through open policies, precise product descriptions, and dependable delivery services are a must for the development of e-commerce in developing countries [55], [56].

These are crucial issues that need to be addressed by both e-commerce platforms and policymakers to guarantee the advancement of e-commerce in Bangladesh that will make online shopping more trustworthy and convenient for consumers. However, this study is not beyond limitations even though it offers insightful findings. The data is based on self-reported answers, which could be subject to response bias or recollection bias. Considering the bias, future study through behavioral tracking of the students could offer more objective insights.

## 6.   CONCLUSION

This research explores the changing shopping patterns of university students in Bangladesh, which have shown considerable progresses towards the online shopping or e-commerce due to its convenience, accessibility, and the growing importance of social media. The results exhibit that despite the significant increase in online shopping, challenges like too high delivery charges, delayed deliveries, problems with the product's reliability, and skepticism in the platforms are still present. To improve the online shopping experience for Bangladeshi university students, several initiatives must be taken by both the e-commerce business and government. E-commerce businesses can decrease shipping fees, especially for small-value items by enabling student discounts and initiating loyalty programs to boost the sale and repeat purchases. In addition, being trustworthy in the eyes of the consumer is the most important; measures like awarding "Trusted Shop Certificates," being clear about product descriptions, receiving user-verified reviews, and more lenient return policies can lead to the reduction in the number of confused customers. Moreover, quick delivery made possible by the new logistics systems, such as campus-based delivery hubs and no-fail delivery timelines, can also substantially raise user satisfaction levels. From the policy perspective, government agencies and e-commerce platforms should work together to build a more reliable and inclusive digital economy. This can be achieved through ensuring digital transaction security, boosting infrastructure, and creating a regulatory environment that protects consumers while making sure that business innovation is also in progress. Moreover, improving mobile app performance, particularly for users in regions with low internet accessibility, should be the main objective.

Even though the research has provided a deep understanding of the issue, yet it had some limiting factors. The scope was limited to the university students of the particular area and thus it may not be suitable for the whole e-commerce market across different demographic regions or in different parts of Bangladesh. Several new methods of data collection and vague questions could improve future research, as well as extensive interviewing that would include key success factors in digital commerce, measuring mobile shopping behavior, having biometric security in higher penetration markets, constructing customer life cycle maps, and delivering personalized communications. Further investigations might be

conducted with larger samples and focus on issues that reflect the role of digital payments, Government policy and how it might steer the wheel of e-commerce and the longitudinal studies that study if indeed the customer's attitude has changed over a period. If these limitations are removed, and the supportive policies are in place, the e-commerce sector of Bangladesh will as a result be a more reliable, and a safe go-to place for the students. Future studies should widen the range of the sample and question the sphere of the influence of digital payment systems, the effect of governmental measures on the e commerce area growth, and the tracking of behavioral changes over time by means of longitudinal studies. By eliminating the current challenges and enacting facilitative regulations, the sector of e-commerce, in Bangladesh, can easily be a more reliable, accessible, and student friendly.

## REFERENCES

[1]     A. S. Gupta and J. Mukherjee, "Long-term changes in consumers' shopping behavior post-pandemic: an exploratory study," *IJRDM*, vol. 50, no. 12, pp. 1518–1534, Oct. 2022, doi: 10.1108/IJRDM-04-2022-0111.

[2]     A. Alquhaif *et al.*, "From traditional to tech-savvy: An empirical investigation of students' actual use of LMS in Saudi universities," *Int. j. adv. appl. sci.*, vol. 10, no. 6, pp. 137–149, Jun. 2023, doi: 10.21833/ijaas.2023.06.017.

[3]     S. Bellini, C. Zerbini, D. T. Vergura, and B. Luceri, "New shopping behaviors in a changing environment," *Sinergie Italian Journal of Management*, vol. 41, no. 1, Art. no. 1, Apr. 2023, doi: 10.7433/s120.2023.05.

[4]     Y. Chen, X. Yan, W. Fan, and M. Gordon, "The joint moderating role of trust propensity and gender on consumers' online shopping behavior," *Computers in Human Behavior*, vol. 43, pp. 272–283, Feb. 2015, doi: 10.1016/j.chb.2014.10.020.

[5]     Statista, "E-commerce as share of total retail sales worldwide 2019-2029," 2025.

[6]     T. Okamoto, "Different perceptions of online shopping concerning product availability, consumer location, and experience," *International Journal of Web Engineering and Technology*, Sep. 2016.

[7]     M. Dharmesti, T. R. S. Dharmesti, S. Kuhne, and P. Thaichon, "Understanding online shopping behaviours and purchase intentions amongst millennials," *YC*, vol. 22, no. 1, pp. 152–167, Jul. 2021, doi: 10.1108/YC-12-2018-0922.

[8]     J. Schulze, "Online and Offline Shopping in the UK: The Impact of COVID-19 on Consumer Buying Behaviour and the Digitalization Process," PhD diss, Bournemouth University, 2021.

[9] S. Singh, S., and Srivastava, "Moderating effect of product type on online shopping behaviour and purchase intention: An Indian perspective," *Cogent Arts & Humanities*, vol. 5, no. 1, p. 1495043, Jan. 2018, doi: 10.1080/23311983.2018.1495043.

[10] A. Akhlaq and E. Ahmed, "Digital commerce in emerging economies: Factors associated with online shopping intentions in Pakistan," *International Journal of Emerging Markets*, vol. 10, no. 4, pp. 634–647, Sep. 2015, doi: 10.1108/IJoEM-01-2014-0051.

[11] J. Athapaththu and D. Kulathunga, "Factors Affecting Online Purchase Intention: A Study of Sri Lankan Online Customers," *International Journal of Scientific & Technology Research*, vol. 7, p. 120, Dec. 2018.

[12] Consultancy.in, "India's rapidly growing and changing eCommerce landscape," Jul. 10, 2024. Accessed: May 31, 2025. [Online]. Available: https://www.consultancy.in/news/4169/indias-rapidly-growing-and-changing-ecommerce-landscape

[13] M. M. Rahman, "Barriers to M-commerce Adoption in Developing Countries — A Qualitative Study among the Stakeholders of Bangladesh," *Int Technol Manag Rev*, vol. 3, no. 2, pp. 80–91, Jul. 2013, doi: 10.2991/itmr.2013.3.2.2.

[14] A. Enam, I. I. Azad, and S. Afrin, "Exploring online shopping behavior in Dhaka, Bangladesh," *Transportation Research Interdisciplinary Perspectives*, vol. 25, p. 101081, May 2024, doi: 10.1016/j.trip.2024.101081.

[15] Bangladesh Bureau of Statistics (BBS), "Population and Housing Census 2022: Preliminary Report," Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, 2022.

[16] M. S. Azam, Md. Morsalin, Md. R. H. K. Rakib, and S. A. K. Pramanik, "Adoption of electronic commerce by individuals in Bangladesh," *Information Development*, vol. 39, no. 4, pp. 764–786, Nov. 2023, doi: 10.1177/02666669211052523.

[17] F. Islam and W. Bin Ahsan, "Strengthening Consumer Trust in Bangladesh's E-Commerce: Factors and Strategies," *UJ*, 2024, doi: 10.58947/journal.kpry56.

[18] A. Mohammadpour, T. R. Arbatani, T. H. Gholipour, F. Farzianpour, and S. Hosseini, "A Survey of the Effect of Social Media Marketing on Online Shopping of Customers by Mediating Variables," *JSSM*, vol. 07, no. 05, pp. 368–376, 2014, doi: 10.4236/jssm.2014.75034.

[19] Y. Zhang, M. Trusov, A. T. Stephen, and Z. Jamal, "Online Shopping and Social Media: Friends or Foes?," *Journal of Marketing*, vol. 81, no. 6, pp. 24–41, Nov. 2017, doi: 10.1509/jm.14.0344.

[20] M. R. Miah, A. Hossain, R. Shikder, T. Saha, and M. Neger, "Evaluating the impact of social media on online shopping behavior during COVID-19 pandemic: A Bangladeshi consumers' perspectives," *Heliyon*, vol. 8, no. 9, p. e10600, Sep. 2022, doi: 10.1016/j.heliyon.2022.e10600.

[21]  K. E. Zannat, E. Bhaduri, A. K. Goswami, and C. F. Choudhury, "The tale of two countries: modeling the effects of COVID-19 on shopping behavior in Bangladesh and India," *Transportation Letters*, vol. 13, no. 5–6, pp. 421–433, May 2021, doi: 10.1080/19427867.2021.1892939.

[22]  Meher Neger and Burhan Uddin, "Factors Affecting Consumers' Internet Shopping Behavior During the COVID-19 Pandemic: Evidence from Bangladesh," *CBR*, vol. 19, no. 3, Mar. 2020, doi: 10.17265/1537-1506/2020.03.003.

[23]  M. A. Zaidi, R. Srivastava, and Y. Awasthi, "The Evolution of Currency: A Comparative Study of the Barter System and Cryptocurrency," in *Advances in Systems Analysis, Software Engineering, and High Performance Computing*, G. Sart, Ed., IGI Global, 2024, pp. 235–254. doi: 10.4018/979-8-3693-3033-3.ch012.

[24]  G. Davies, *A history of money*, Third edition, with Revisions. Cardiff, Wales: University of Wales Press, 2013.

[25]  V. Howard, "History of department stores: introduction," *History of Retailing and Consumption*, vol. 7, no. 1, pp. 1–8, Jan. 2021, doi: 10.1080/2373518X.2021.1980285.

[26]  R. Coopey, S. O'Connell, and D. Porter, *Mail Order Retailing in Britain*. Oxford University Press, 2005. doi: 10.1093/acprof:oso/9780198296508.001.0001.

[27]  P. Scott and P. and Fridenson, "New perspectives on 20th-century European retailing," *Business History*, vol. 60, no. 7, pp. 941–958, Oct. 2018, doi: 10.1080/00076791.2018.1494943.

[28]  D. K. Gauri *et al.*, "Evolution of retail formats: Past, present, and future," *Journal of Retailing*, vol. 97, no. 1, pp. 42–61, Mar. 2021, doi: 10.1016/j.jretai.2020.11.002.

[29]  F. D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989, doi: 10.2307/249008.

[30]  J. B. Kim, "An empirical study on consumer first purchase intention in online shopping: integrating initial trust and TAM," *Electron Commer Res*, vol. 12, no. 2, pp. 125–150, May 2012, doi: 10.1007/s10660-012-9089-5.

[31]  V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, vol. 27, no. 3, pp. 425–478, 2003, doi: 10.2307/30036540.

[32]  I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211, Dec. 1991, doi: 10.1016/0749-5978(91)90020-T.

[33]  O. Alabi and T. Bukola, "Introduction to Descriptive statistics," in *Recent Advances in Biostatistics*, B. Santhosh Kumar, Ed., IntechOpen, 2023. doi: 10.5772/intechopen.1002475.

[34]  J. W. Creswell, J. D. Creswell, J. W. Creswell, and J. D. Creswell, *Research design: qualitative, quantitative, and mixed methods approaches*, Fifth edition. Los Angeles London New Delhi Singapore Washington DC Melbourne: SAGE, 2018.

[35]  J. Alzahrani, "The impact of e-commerce adoption on business strategy in Saudi Arabian small and medium enterprises (SMEs)," *Review of Economics and Political Science*, vol. 4, no. 1, pp. 73–88, Nov. 2018, doi: 10.1108/REPS-10-2018-013.

[36]  P. Bajdor, "Simulations of the relationship between the experience level of e-commerce customers and the adopted variables - implications for management in the area of online shopping," *Procedia Computer Science*, vol. 192, pp. 2576–2585, Jan. 2021, doi: 10.1016/j.procs.2021.09.027.

[37]  C. H. Wong, P. P. An, F. F. K. Wong, and S. Kumarashvari, "Factors Influencing the Consumers Adoption of E-commerce in the Agricultural Market," *IJARBSS*, vol. 11, no. 7, p. Pages 1035-1042, Jul. 2021, doi: 10.6007/IJARBSS/v11-i7/10383.

[38]  J. R. H. Cooper, D. Scarf, and T. S. Conner, "University students' opinions towards mobile sensing data collection: A qualitative analysis," *Front. Digit. Health*, vol. 5, Apr. 2023, doi: 10.3389/fdgth.2023.1125276.

[39]  M. Hadley *et al.*, "Using online surveys for health behavior research with college students: How does recruitment method impact study results?," *Health Behavior Research*, vol. 7, no. 4, Dec. 2024, doi: 10.4148/2572-1836.1254.

[40]  J. Pallant, *SPSS survival manual: a step by step guide to data analysis using IBM SPSS*, 5. ed. Maidenhead, Berkshire: McGraw Hill, 2013.

[41]  E. R. Babbie, *The practice of social research*, Thirteenth edition. Belmont, Calif: Wadsworth Cengage Learning, 2013.

[42]  Z. Song, Y. Sun, J. Wan, L. Huang, and J. Zhu, "Smart e-commerce systems: current status and research challenges," *Electron Markets*, vol. 29, no. 2, pp. 221–238, Jun. 2019, doi: 10.1007/s12525-017-0272-3.

[43]  M. Waqas, S. Rafiq, and J. Wu, "Online shopping: a systematic review of customers' perceived benefits and challenges during COVID-19 pandemic," *Global Knowledge, Memory and Communication*, vol. ahead-of-print, no. ahead-of-print, Nov. 2023, doi: 10.1108/GKMC-04-2023-0129.

[44]  M. Hasan and M. S. and Sohail, "The Influence of Social Media Marketing on Consumers' Purchase Decision: Investigating the Effects of Local and Nonlocal Brands," *Journal of International Consumer Marketing*, vol. 33, no. 3, pp. 350–367, May 2021, doi: 10.1080/08961530.2020.1795043.

[45]  K. Mukherjee, "Social media marketing and customers' passion for brands," *Marketing Intelligence &amp; Planning*, vol. 38, no. 4, pp. 509–522, Oct. 2019, doi: 10.1108/MIP-10-2018-0440.

[46]  P. S. Nair, A. Shiva, N. Yadav, and P. Tandon, "Determinants of mobile apps adoption by retail investors for online trading in emerging financial

markets," *Benchmarking: An International Journal*, vol. 30, no. 5, pp. 1623–1648, Jun. 2022, doi: 10.1108/BIJ-01-2022-0019.

[47] H. Buldeo Rai, S. Verlinde, and C. Macharis, "Unlocking the failed delivery problem? Opportunities and challenges for smart locks from a consumer perspective," *Research in Transportation Economics*, vol. 87, p. 100753, Jun. 2021, doi: 10.1016/j.retrec.2019.100753.

[48] I.-L. Wu, M.-L. Chiu, and K.-W. Chen, "Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues," *International Journal of Information Management*, vol. 52, p. 102099, Jun. 2020, doi: 10.1016/j.ijinfomgt.2020.102099.

[49] U. Tandon, "Predictors of online shopping in India: an empirical investigation," *J Market Anal*, vol. 9, no. 1, pp. 65–79, Mar. 2021, doi: 10.1057/s41270-020-00084-6.

[50] M. Zhou, J. Huang, K. Wu, X. Huang, N. Kong, and K. S. Campy, "Characterizing Chinese consumers' intention to use live e-commerce shopping," *Technology in Society*, vol. 67, p. 101767, Nov. 2021, doi: 10.1016/j.techsoc.2021.101767.

[51] S. Hussain, S. Gupta, and S. Bhardwaj, "Determinants inhibiting digital payment system adoption: an Indian perspective," *Qualitative Research in Financial Markets*, vol. ahead-of-print, no. ahead-of-print, Sep. 2024, doi: 10.1108/QRFM-09-2023-0223.

[52] K. Nizam and M. Z. Rashidi, "Barriers to digital financial inclusion and digital financial services (DFS) in Pakistan: a phenomenological approach," *Qualitative Research in Financial Markets*, vol. 17, no. 2, pp. 251–274, Jul. 2024, doi: 10.1108/QRFM-11-2023-0271.

[53] T. Norbu, J. Y. Park, K. W. Wong, and H. Cui, "Factors Affecting Trust and Acceptance for Blockchain Adoption in Digital Payment Systems: A Systematic Review," *Future Internet*, vol. 16, no. 3, Art. no. 3, Mar. 2024, doi: 10.3390/fi16030106.

[54] O. Szumski, "Technological trust from the perspective of digital payment," *Procedia Computer Science*, vol. 176, pp. 3545–3554, Jan. 2020, doi: 10.1016/j.procs.2020.09.032.

[55] S. Hendricks and S. D. Mwapwele, "A systematic literature review on the factors influencing e-commerce adoption in developing countries," *Data and Information Management*, vol. 8, no. 1, p. 100045, Mar. 2024, doi: 10.1016/j.dim.2023.100045.

[56] M. Miao, T. Jalees, S. I. Zaman, S. Khan, N.-A. Hanif, and M. K. Javed, "The influence of e-customer satisfaction, e-trust and perceived value on consumer's repurchase intention in B2C e-commerce segment," *Asia Pacific Journal of Marketing and Logistics*, vol. 34, no. 10, pp. 2184–2206, Dec. 2021, doi: 10.1108/APJML-03-2021-0221.