

Rethinking Online Marketing in Bangladesh: A Comprehensive Study on Platform Interactivity and the Need for Integrated Promotion Strategies

Ahmad Bin Yamin

Assistant Professor, Department of Business Administration, Fareast International University, Dhaka, Bangladesh

*Corresponding Contact:

Email: abyamin000@gmail.com

Manuscript Received: 03 March 2025

Accepted: 05 May 2025

ABSTRACT

Online platforms have rapidly gained prominence worldwide among both individuals and businesses. In Bangladesh, internet connectivity has expanded significantly over the past decade, creating a dynamic environment for online marketing and digital interaction. This study investigates the interactivity of various online platforms and examines how different types of content engage, attract, and retain customers. By analysing connectivity, content management, and platform usage, this research highlights the critical factors that shape effective digital communication and promotional strategies. The findings underscore the urgent need for businesses in Bangladesh to adopt integrated, consumer-driven online marketing approaches to enhance reach, frequency, and competitive advantage in an increasingly digital marketplace.

Keywords: Online Marketing, Digital Platforms, Social Media Marketing, E-Marketing Strategies, Integrated Promotion, Consumer Engagement, Content Management, Bangladesh Market

This article is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

Attribution-NonCommercial (CC BY-NC) license lets others remix, tweak, and build upon work non-commercially, and although the new works must also acknowledge & be non-commercial.



INTRODUCTION

In recent times, different attempts have been made to evaluate the marketing strategy of several e-markets (Tang et al., 2001; Avogo et al., 2022). Online marketing is now the most popular platform for marketers to roll out their campaigns. The Internet not only allows customers to purchase from home but also gives Marketers the strength to go deep into consumers' needs and provide them most conveniently.

With the development of the internet, there have been many changes to how a business might implement a meticulous marketing strategy. The internet is a forceful organism, with businesses and consumers adapting to its fast growth rate. It opens the market to global accessibility. Demographic targeting is no longer confined to a limited zone. These developments demand new marketing strategies where traditional strategies are integrated with online strategies for broader and more specific target markets.

STATEMENT OF THE PROBLEM

Online marketing is so extensively inclusive that buyers come within reach of data whenever and wherever they need it. In antiquity, only particular data was accessible to businesses (Saura et al., 2023). Buyers approach an extensive variety of data where they are not just educated about what their organizations say regarding their brands, but also what the media, colleagues, relatives, peers, and so on, are stating. Over the ages, it has been established that shoppers or consumers trust them more than organizations' statements or promotions. Purchasers need brands they can trust, organizations they know about, and customized and relevant associations. The vast majority of the shoppers utilize a few online marketing tools and an assortment of gadgets that utilize distinctive conventions, particulars, and interfaces, and they collaborate with those gadgets in various ways and for various purposes (Ahmed et al., 2024). Unlike traditional media, online marketing is moderately cluttered, which is reasonable for most new and small businesses (Dahiya et al., 2024). Buyers abandon a great trail of information in advanced channels. Working with and executing such massive information banks in an activity is difficult. This analysis aims to look into how computerized advertising affects consumers and how they respond to it in society.

This research has been conducted to determine the most important factors that affect consumers' communication with organizations in promoting goods and services on online platforms and online marketing's interactivity among different demographic groups. To find out the type of content and media to focus on attracting, informing, and reminding organizations of brands or products for a successful online presence. So, the objective can be classified as follows:

- Learning online marketing in Bangladesh and its effect on personal consumption.
- To measure the relative effect of each limited-time instrument on shoppers.
- To recognize the components and contents that impact consumers' purchase decisions.
- To understand online marketing's engagement with different demographic segments.

LITERATURE REVIEW

Online marketers typically check factors like content effectiveness, frequency, and duration of views, sales conversions, etc. The Internet is the most extensively utilized channel in digital marketing, despite the existence of alternative methods such as wireless text messaging, electronic billboards, instant messaging on mobile devices, podcasts, digital television and radio channels, etc. Generally, "digital marketing" refers to the interaction, use, implementation, and control of marketing strategies and plans for increased consumer satisfaction and organizational goals across all digital platforms and modern technology (Yamin, 2017). Hence, the internet is the most vital medium; marketers should design new online communicative platforms for better marketing strategies. It is to be observed that online surfers require more satisfaction before they decide to purchase (Atkins, 2003).

Nowadays, social media such as Facebook, YouTube, WhatsApp, Twitter, Instagram, and other electronic channels have effectively transformed the attitudes and perceptions of targeted consumers. This online marketing is done through a measurable, vast network of consumers with consistent data and concurrent feedback on customer experiences. In broad terms, the internet and digital marketing involve modern technology to support marketing strategies and initiatives that increase consumer understanding by aligning with their needs and desires (Boyd & Ellison, 2007). The introduction of Yahoo into the internet industry in 1994 attracted many companies to start their presence on online

platforms with care (Zhang et al., 2011). When it came to search engine optimization in early 2001, Google and Yahoo dominated the market. However 2006, internet search traffic grew extraordinarily; search engine optimization (SEO) opened a new horizon for major companies like Google (Sundararajan, 2003). With the development and application of smartphones and internet accessibility in the 2010s, worldwide, marketers have realized the significance of online marketing. It has been observed that conventional methods are needed simultaneously to ensure sound and successful management of customers' online (Parsons et al., 1998). Digital content features such as speed, customization, accessibility, and navigation are essential for online marketing to yield business results (Kiani, 1998).

Online promotion is a dominant marketing tool for building brands and growing business traffic to achieve their goal (Song, 2001). When evaluating the results and measuring accomplishment for advertisement budgeting, online marketing is more cost-efficient for measuring return on investment (ROI) on promotion by marketers in recent times (Munshi & Munshi, 2012). In terms of goal achievement and successful campaigns, Singapore has proved that online marketing, one of the main parts of digital marketing tools, has become more effective and helpful in achieving good results (Kiani, 1998; Rahman, 2017; Ahmed & Manavalan, 2021). The expansion in electronic marketing has been due to the fast advances in information and telecommunication technologies (Parsons et al., 1998). According to research, online resources have a greater impact than conventional forms of communication (Helm et al., 2013). According to a study by Yannopoulos (2011), the Internet is the most powerful tool available to businesses, so using it to market on new platforms is essential for marketers. Because of this, marketers ought to concentrate and devise special plans for an ever-evolving online presence. To market products and services online, one must have a separate understanding of branding, pricing, distribution, and promotional strategies.

METHODOLOGY

Companies and institutions have undoubtedly observed the growth and importance of online presence. However, the type of content, platforms, use, time, and interactivity needed to be well-identified and smartly presented on the internet. This research is conducted among consumers who are more internet-friendly and greatly influenced by the promotional activities of the different organizations. The following is the demographic information of the respondents:

Table 1: Demographic information of the respondents

Gender	Female			Male		
No of Respondent	52			83		
Age Group	14-20yrs	21-30yrs	31-40yrs	41-50yrs	51-60yrs	60+yrs
No of Respondent	29	52	28	17	6	3
Profession	Student	Private job	Govt. Job	Business	Agriculture	Other
No of Respondent	45	37	19	29	0	5

This research is descriptive. Both secondary and primary data are gathered and analysed to understand the depth and provide suggestive recommendations. Questionnaires were structured in a closed-ended format, regardless of age, gender, and consumption pattern. All the respondents were from Bangladesh to understand the local market accurately. The total number of respondents was 135, who were given a written questionnaire to fill out. A Questionnaire was formed in the English language and given to the educated group who are internet users.

PROMOTIONAL STRATEGY INTEGRATION THROUGH THE ONLINE PLATFORM

Their client's intuitive association has changed significantly due to the massive incorporation of online media. Internet marketing has transformed the relationship between a brand and consumers. It has given consumers enormous power and ability, created numerous partnerships, and clarified that brands will never again hold the ostensible upper hand.

Online marketing defined

Online marketing is an umbrella term for promoting items or services using digital technologies, primarily on the Internet but also on cell phones, display advertising, and other digital media.

Online marketing has grown dramatically since the 2000s and has changed how brands and organizations use innovation and computerized specialized instruments to promote their products. Advanced advertising efforts are becoming more far-reaching and effective as digital platforms are increasingly integrated into marketing plans, customers' daily lives, and individuals operate automated electronic devices instead of going to physical stores (Jayadeva et al., 2022).

Online marketing is certainly a cutting-edge promotional tool that utilizes specialized devices, distinctive electronic gadgets, and advances to convey marketing messages to buyers more successfully and effectively (Li et al., 2021). Organizations use advanced channels, such as Google searches, social media, email, and their websites, to connect with their current and potential clients.

Computerized promoting vehicles, for example, site design improvement, influencer showcasing, internet searcher advertising, content advertising, content robotization, information-driven advertising, crusade showcasing and web-based business promoting, online networking advertising, web-based social networking enhancement, email coordinate promoting, show publicizing, e-books, and optical plates and diversions are winding up more typical in our propelling innovation (Rahman, 2024).

Nowadays, online marketing extends to non-Internet stages that use digital media, like cell phones (SMS and MMS), on-hold portable ringtones, and call-backs. These things make marketing communication challenging and give a wider reach with effectiveness and efficiency.

Growth of the internet, social media, and their impact on customers choosing, selecting, and purchasing products

The Internet is widely used on all platforms worldwide, in developed and underdeveloped countries. Intelligence provides a superior picture of the basic patterns of engaging social media as part of the marketing strategy (Cetiň et al., 2012; Edelman, 2010; Hanna et al., 2011; Ahmed & Khan, 2010). Social media is strongly used in marketing everywhere.

Marketing tools, the internet, and social media are doing both active and passive responsibilities. The Passive approach utilizes the Social Media public as the possible foundation of customer response (Daifen, 2022). An active move is using social media for communication, direct sales, customer acquisition, and retention. Riegner (2007) remarks that the e-marketing of products has substantially impacted the form of customers' responses. There has been much change in social behavior because of internet marketing and the availability of social networks.

Importance of online marketing in Bangladesh

Most countries engage significantly with technology-driven platforms for solving and establishing their economic developments (Pai & Arnott, 2013). Bangladesh is a developing nation that has quickly embraced technology. A greater range of opportunities to contribute to the economy is created by the growth of the telecom industry, mobile financial transactions, and the Introduction of internet-based applications created by companies with government support (Rahman, 2023). Marketers and other organizations are integrating Internet and web-based, or web-assisted, marketing of goods and services.

Bangladesh Bank, the Central Bank of Bangladesh, was permitted to implement electronic payment gateways in 2009, and e-commerce businesses have grown rapidly. According to reports, many business-to-consumer companies use the fusion model, which includes "cash on delivery" mechanisms. This indicates that mass consumers cannot easily access or utilize the system. According to E-Commerce Directory (2014), the online auction and e-commerce sectors grew by 10.4% in five years between 2007 and 2012 and are expected to grow by 8.8% annually. IBIS World reports that over the next five years, the total number of businesses operating in the e-commerce sector is expected to grow exponentially to 61K+.

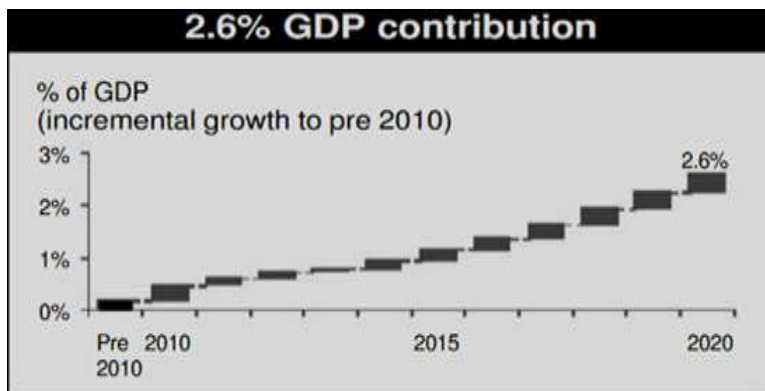


Figure 1: Internet, online marketing, and GDP contribution

(Source: <http://www.telenor.com/wp-content/uploads/2012/03/Towards-a-Connected-World-1MB.pdf>)

It is undoubtedly clear that to cope with modern business and economy, we must understand the importance of new technologies. The internet has opened up new windows, and online marketing can help us gain new markets and establish sustainable revenue sources for them. The massive internet use among Bangladeshi populations shows that our organization should focus on technology-driven strategies where online marketing should play a vital role.

ANALYSIS OF DATA INTERPRETATION

Based on collected data from participants, the following analysis has been made where the discussion on the use of the internet, purchasing online, preference of social media, issues of using and purchasing from websites as well as obstacles and reasons for not using the online platform for purchasing etc. are conducted to find a suitable guideline for marketers who are promoting their products using modern technology and communicating better for sustainable marketing.

Frequency of using the Internet

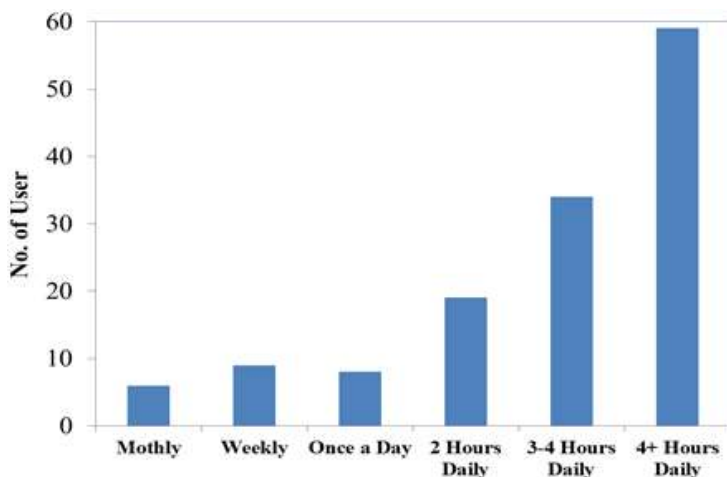


Figure 2: Frequency of using the Internet

This research was carried out on different age groups. It is revealed that the frequency of internet use per day is 4+ hours, the topmost, which is nearly 43% of the total population. People spend much time browsing the internet as depicted in the graph. That indicates that they mostly update friends' feeds or current information regularly. So, marketers should focus more on the growth of online-based marketing strategies.

Popular websites

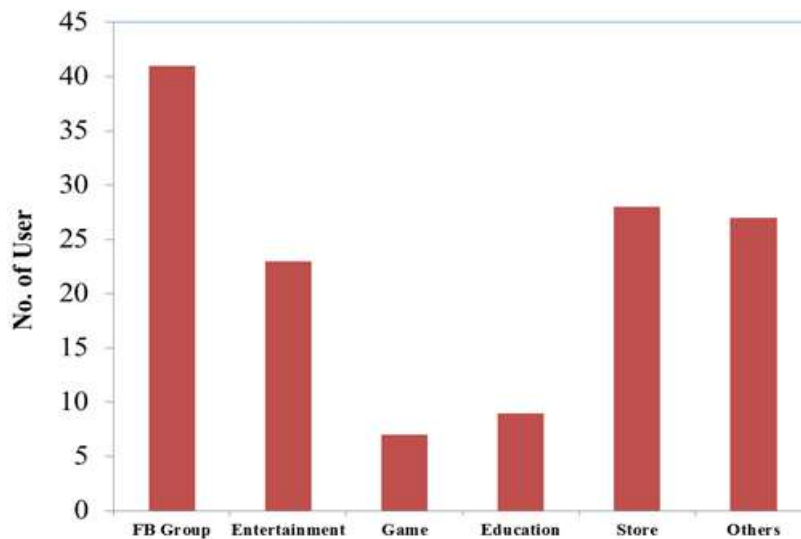


Figure 3: Types of sites most visited

The research shows that most of the internet users, which is 30% of the total, are using social media platforms for social networking, another popular response is on store, and the rest are grouped in other segments and Entertainment. This shows that more people are using the internet for chat and social communication, visiting online shops to buy or get information about products, and just for Entertainment.

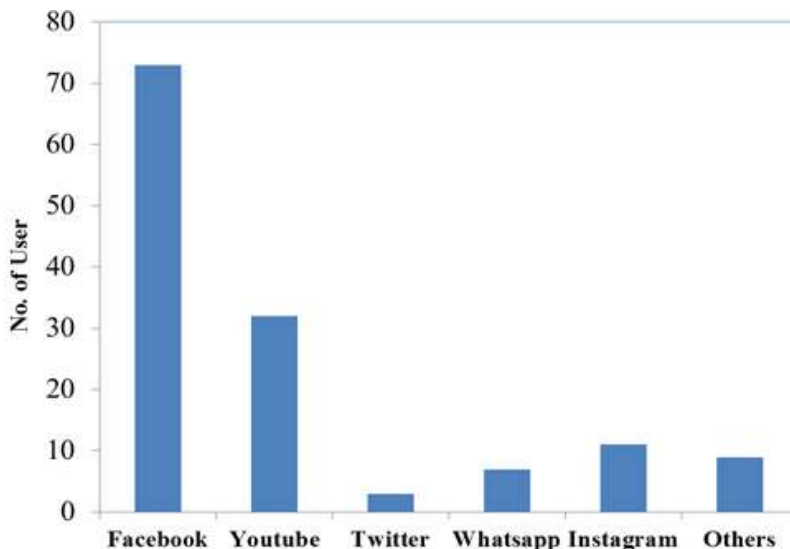
Preferred social media

Figure 4: Preferred social media

Most respondents showed that their preferred social media platform is Facebook, 54% way ahead of the second-largest preferred, YouTube, mainly used for Entertainment and video content. The mass population, especially young groups, responds more actively on YouTube. Facebook became a place for social networking, video sharing, group engagement, and influencer fan pages, making it most popular among teens and young people. This is a symptom of the growing F-commerce industry in developing nations as it needs no or the least amount of establishment investments.

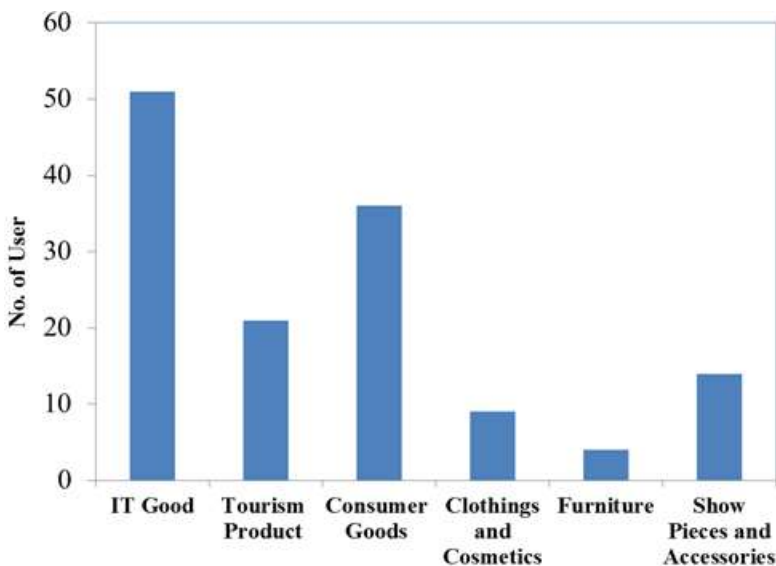
Types of goods purchased/searched for online

Figure 5: Types of goods purchased/searched online

The growth of online marketing and purchases is noticeably focused mainly on IT goods, including computer accessories, mobile phones, and other gadgets. Although consumer goods seem unusual, many people visit online stores for updated information or to compare different goods. Tourism, another growing segment, is also gaining popularity in online marketing.

The motivation behind purchasing online

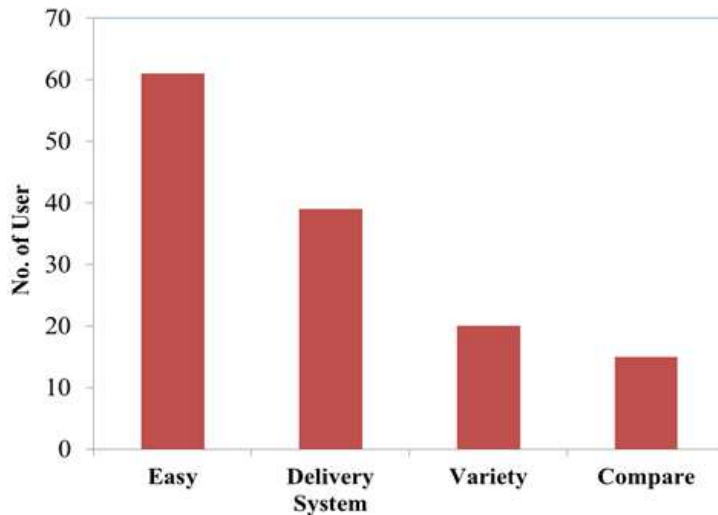


Figure 6: Motivation behind purchasing online

When the mass population was asked why they think online is a better place to purchase or search for information, the majority of them answered that they find it easy, which is more than 45% of respondents' preference. The second is the home delivery system, which was responded to by 39 participants. Seeking variety and comparison among brands were other motivations for using internet platforms.

The obstacle to purchasing online

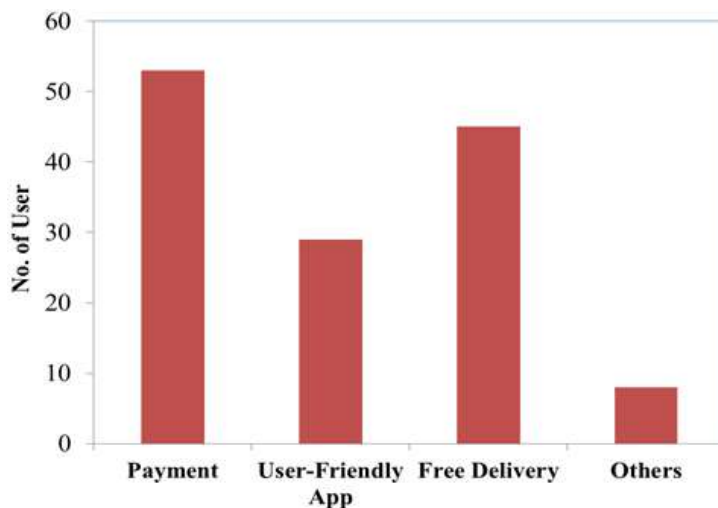


Figure 7: Obstacles to purchasing online

These responses should be carefully monitored as the young group is using the internet and is getting more accustomed to purchasing online. The results show that about 40% of people think the payment systems and processes are not comfortable, and they cannot buy because of it. 33% say they would prefer free home delivery, as the delivery charges often increase, which seems to lack the motivation for consumers to order online. Respondents also showed that they would love to have a more user-friendly mobile application customized for them.

Most visited online store

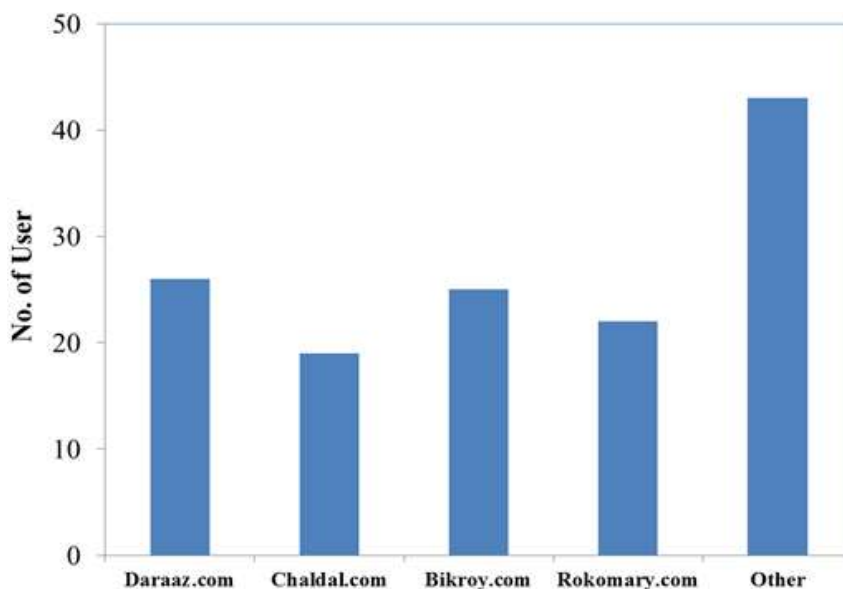


Figure 8: Most visited online store

When participants were asked directly to choose stores, the answers were scattered, and shops specialized in online retail, like Daraz.com, Ajkerdeal, and Rokomari.com, noticed more interactions with online customers. Daraz, a subsidiary of Alibaba, the retail business, Ajkerdeal, another e-commerce convenience shop, and Rokomari, a Bangladeshi version of Amazon selling books and stationery accessories, are widely popular in this region. Still, the departmental store Shwapno was among the most preferred stores. Besides these, many other small Facebook pages and groups were reported for purchasing online. F-commerce is once again reported as an easy and cheap way to do business, especially in empowering small businesses in the retail sector.

Preferred delivery method among users

Currently, more respondents want or like to use the cash-on-delivery method, and Bkash payment is the second most preferred or used method. It is noted that credit cards or debit cards are very few among the responses when compared to worldwide sales. Marketers should review their payment methods and understand why credit cards are not well used among the young target group, as none of the positive responses who used credit card payment systems were among the young segments.

The research shows that participants are mostly young. Though the majority are male, females still use the internet and purchase products, often online. Students and private job holders are more internet-friendly and respond to online marketing activities.

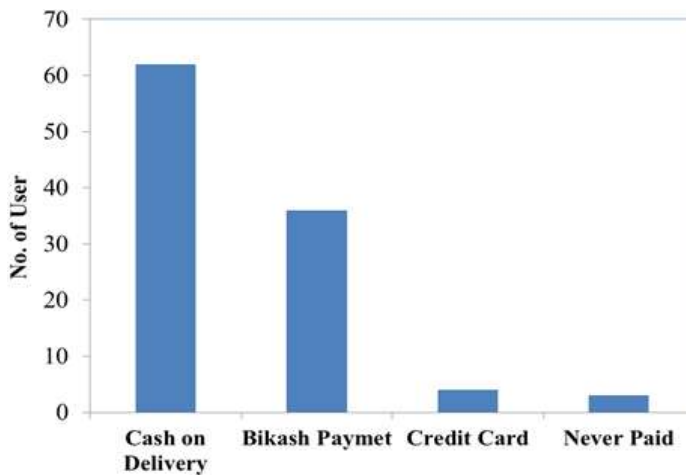


Figure 9: preferred delivery method

RECOMMENDATIONS

Marketing has been changing its platform slowly but surely. Online market research, database management, new product development, online store, online customer care, etc. are growing important. Online promotion is more cost-effective. Communicating with customers is timely and customized because of using the internet platform. The research brings out the following recommendations based on the responses from the recorded demographic groups:

- Most of the respondents use the Internet, either from a mobile or desktop PC, for 4 to 6 hours daily. Marketers should find the Internet an emerging platform where they cannot only sell their products but also use it as a strong communication vehicle.
- Mass populations are using Facebook and Twitter as social media for communication and networking purposes. They also spend a good amount of time on YouTube for Entertainment. Young teenagers who follow their content regularly are the most noticeable group engaging on YouTube. Marketers should identify the age group and their participation in different content on Facebook and YouTube to plan their communication strategies.
- The young generation is more accepting of online shopping, and it is growing rapidly. So, it is strongly recommended that every company ensure its presence through online store facilities like mobile-friendly websites, easy payment methods, and compatibility.
- IT products and consumer goods are in high demand, and retail stores like Shwapno, which offer free home delivery, are quickly gaining the attention of online shoppers.
- Online is a new platform in Bangladesh, yet more people are exploring it for more interactivity and reference group involvement, so endorsement from strong, influential sources is needed.
- Though online is a fast-growing tool, Marketers should also integrate other promotional tools into their campaigns for credibility and better results.
- Organizations are going more effectively through the mobile app, freely downloadable from the Google Play Store. However, free home delivery could be significantly considered when considering sales results.

CONCLUSION

This study brings out the fact that online marketing is indeed an essential part of modern-day marketing. While online marketing tools and concepts are relatively new to Bangladesh's mass consumers, they are rapidly replacing traditional methods worldwide, and Bangladesh will not be any different in the future. The Marketer should understand the target market's online presence, time, and preferences, then redesign the whole marketing program and strategy. From corporate websites to online stores, online advertisement to customer care, all the strategies and platforms must be encompassed by the internet and interactive marketing. The more technological developments, the better the results of online marketing can be achieved by firms. Bangladesh, a highlight of developing nations in the Asian and African region, is one of the growing economies with an expected GDP growth of 6-7% annually, and it shows significant growth in e-commerce. The more people use the Internet daily, the more effective segmentation, targeting, and positioning are needed with the help of Internet marketing tools. Only well-designed online marketing communication strategies can reach and ensure sustainable business growth and customer satisfaction in the long run.

REFERENCE

- Ahmed, A. A. A., & Khan, W. (2010). Project process Management Bridge between project and information technology. In *Proceedings of the International Conference on Mechanical, Industrial and Energy Engineering (ICMIEE 2010)* (p. 8). Faculty of Mechanical Engineering, KUET, Bangladesh.
- Ahmed, A. A. A., & Manavalan, M. (2021). *Role of Internet of Things (IoT) in enabling productive work from home (WFH) for environmental volatiles* [Copyright registration No. 1188030]. Canadian Intellectual Property Office.
- Ahmed, A. A. A., Kumar, V. S., Jena, S. K., Nagpal, A., Shukla, P. K., & Balachandar, K. (2024). Maximizing profits and efficiency: The intersection of AI, machine learning, and supply chain financial management. In *Utilization of AI technology in supply chain management* (pp. 225–239). IGI Global Scientific Publishing.
- Atkins, D. (2003). Use the net to network, focus sales. *Selling*, 22, 12–13.
- Avogo, F. A., Appau, W. M., & Attakora-Amaniampong, E. (2022). The effects of word-of-mouth and online review marketing strategies on students' satisfaction with their housing selection during COVID-19 season. *Facilities*, 40(5/6), 394–411. <https://doi.org/10.1108/F-09-2021-0085>
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230. <https://doi.org/10.1111/j.1083-6101.2007.00393.x>
- Cetină, I., Munthiu, M.-C., & Rădulescu, V. (2012). Psychological and social factors that influence online consumer behavior. *Procedia - Social and Behavioral Sciences*, 62, 184–188. <https://doi.org/10.1016/j.sbspro.2012.09.029>
- Dahiya, M., Jain, V., Ahmed, A. A. A., Roy, S., Almahairah, M. S., & Sharma, S. (2024). An empirical investigation on reputation risk management determinants, value and awareness from the banking and insurance sector. In *Recent advances in management and engineering* (Vol. 1, pp. 261–265). Taylor & Francis Group.
- Daifen, T. (2022). Evaluate the sustainable marketing strategy to optimal online leasing of new energy vehicles under the background big data economy. *Journal of Enterprise Information Management*. <https://doi.org/10.1108/JEIM-02-2021-0087>
- E-Commerce Directory. (2014). E-commerce in Bangladesh. *The Monthly Computer Jogot*.
- Edelman, D. C. (2010). Four ways to get more value from digital marketing. *McKinsey Quarterly*. Retrieved from <https://www.mckinsey.com/>
- Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of the social media ecosystem. *Business Horizons*, 54(3), 265–273. <https://doi.org/10.1016/j.bushor.2011.01.007>

- Helm, R., Möller, M., Mauroner, O., & Conrad, D. (2013). The effects of a lack of social recognition on online communication behavior. *Computers in Human Behavior*, 29(3), 1065–1077. <https://doi.org/10.1016/j.chb.2012.09.007>
- Jayadeva, M. S., Ahmed, A. A. A., Malik, R., Shaikh, A. A., Siddique, M. N.-E.-A., & Naved, M. (2022). Roles of cloud computing and Internet of Things in marketing management: A critical review and future trends. In S. K. Saha, A. K. Verma, & M. Mathur (Eds.), *Proceedings of Second International Conference in Mechanical and Energy Technology: ICMET 2021, India* (pp. 165–173).
- Kiani, G. R. (1998). Marketing opportunities in the digital world. *Internet Research*, 8(2), 185–194. <https://doi.org/10.1108/10662249810211656>
- Li, Z., Ahmed, A. A. A., Chupradit, S., Wisetsri, W., & Chupradit, P. W. (2021). Impact of psychological, mental, and socioeconomic factors on corruption in South Asia. *Tobacco Regulatory Science*, 7(6), 6708–6721.
- Munshi, A., & Munshi, M. (2012). Digital marketing: A new buzz word. *International Journal of Business Economics & Management Research*, 2(7), 114–120.
- Pai, P., & Arnott, D. C. (2013). User adoption of social networking sites: Eliciting uses and gratifications through a means-end approach. *Computers in Human Behavior*, 29(3), 1039–1053. <https://doi.org/10.1016/j.chb.2012.06.025>
- Parsons, A., Zeisser, M., & Waitman, R. (1998). Organizing today for the digital marketing of tomorrow. *Journal of Interactive Marketing*, 12(1), 31–46. <https://journals.sagepub.com/doi/abs/10.1002/%28SICI%291520-6653%28199824%2912%3A1%3C31%3A%3AAID-DIR4%3E3.0.CO%3B2-X>
- Rahman, K. (2017). Digital platforms in learning and assessment: The coming of age of artificial intelligence in medical checkup. *International Journal of Reciprocal Symmetry and Theoretical Physics*, 4(1), 1–5.
- Rahman, K. (2023). Post-COVID physical and mental health outcomes among adults in Dhaka North City Corporation, Bangladesh. *Asian Journal of Humanity, Art and Literature*, 10(1), 9–20.
- Rahman, K. (2024). Malnutrition and anemia among pregnant women in Ukhiya Upazila, Cox's Bazar, Bangladesh: A socioeconomic study. *Journal of Fareast International University*, 7(1), 59–70.
- Riegner, C. (2007). Word of mouth on the web: The impact of Web 2.0 on consumer purchase decisions. *Journal of Advertising Research*, 47(4), 436–447. <https://doi.org/10.2501/S0021849907070456>
- Saura, J. R., Palacios-Marqués, D., & Ribeiro-Soriano, D. (2023). Digital marketing in SMEs via data-driven strategies: Reviewing the current state of research. *Journal of Small Business Management*, 61(3), 1278–1313. <https://doi.org/10.1080/00472778.2021.1955127>
- Song, Y. B. (2001). Proof that online advertising works. *Atlas Institute, Digital Marketing Insight*.
- Sundararajan, A. (2003). Pricing digital marketing: Information, risk sharing and performance. *Stern School of Business Working Paper*, New York University. <https://oz.stern.nyu.edu/papers/pdm0603.pdf>
- Tang, Y.-S., Wang, T.-I., & Tang, J.-T. E. (2001). An instrument for measuring customer satisfaction toward web sites that market digital products and services. *Journal of Electronic Commerce Research*, 2(3), 89–102. <http://www.jecr.org/node/295>
- Yamin, A. B. (2017). Impact of digital marketing as a tool of marketing communication: A behavioral perspective on consumers of Bangladesh. *American Journal of Trade and Policy*, 4(3), 117–122. <https://doi.org/10.18034/ajtp.v4i3.426>
- Yannopoulos, P. (2011). Impact of the Internet on marketing strategy formulation. *International Journal of Business and Social Science*, 2(18), 1–7. https://ijbssnet.com/journals/Vol_2_No_18_October_2011/1.pdf
- Zhang, G., Dubinsky, A. J., & Tan, Y. (2011). Impact of blogs on sales revenue: Test of a network model. *International Journal of Virtual Communities and Social Networking*, 3(2), 60–74. <https://doi.org/10.4018/jvcsn.2011040104>