# Transforming Business in the Digital Age: A Study on E-Commerce Trends and Success Factors

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Received: 2 March 2025

Revised: 16 March 2025

Accepted: 30 March 2025

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ABSTRACT- E-commerce (Electronic-commerce) is a game-changer affecting marketers and customers alike. In fact E-commerce is more than just an alternative to existing business models; it is pushing a radical change in the way business practise has traditionally been conducted. This radical business model change is currently seeing exhaustive growth around the globe and India is no exception. The phenomenal growth of E-commerce can be attributed to the huge internet penetration and particularly within the growing start-up universe have been adopting this as a differentiating business model. The present research is a descriptive study to understand the situation of E-commerce, analyse the developments in E-commerce. The research also analyses the important variables which are highly criterial or influential to the success of Ecommerce business models. The objectives: The objectives of present research are: 1. To understand the present state and trends in E-commerce; and 2. To Identify the important variables facilitated the increase use of E-commerce.

**KEYWORDS-** E-Commerce, Internet Banking, Internet, Self-service Technology, Technology

# I. INTRODUCTION

E-commerce (which means electronic commerce), is the purchase and sale of products and services through the use of electronic media and the internet, employing information technologies such as Electronic Data Interchange (EDI). In e-commerce, businesses essentially operate on digital platforms or as web-based businesses where consumers can see product selections, place orders, and pay for purchases through credit or debit cards, or electronic funds transfer (EFT). E-commerce is generally understood to encompass a broad range of models, such as business-to-business (B2B). business-to-consumer (B2C). business-to-government (B2G), consumer-to-consumer (C2C), and mobile commerce (mobile commerce - m-commerce). E-commerce takes advantage of a broad range of digital communication and electronic processing technologies and facilitates the transformation of traditional business transactions and business relationships in which value exchange occurs between businesses and individuals.

## A. E-commerce Website Coordinator

#### • Internet

The internet supports e-commerce in its ability to provide the means and capabilities to conduct online shopping in a seamless, efficient, and accessible manner. E-commerce is made available worldwide, 24 hours a day, by the use of the internet. This allows organizations to meet customers' needs anywhere in the world, at any time they want. Ecommerce companies can provide safe online transactions variety of payment options, facilitate using а communication with customers in real-time through applications like live chat and email marketing, gather customer data using data analytics, facilitate digital marketing using search engine optimization (SEO), social media and influencers all while being transparent with logistics for customers using real-time shipping and inventory management. Through the use of technology, the internet helps make purchasing and selling online personalized, transactions that are safe (SSL encryption), order fulfillment and customer service automated, and is why e-commerce is possible and efficient.

### • Payment Gateway

A payment gateway plays a critical role in the e-commerce industry by securely processing and transferring the payment between buyers and sellers. In other words, a payment gateway is the steps that securely transmit information from the online e-commerce site to a financial institution. Payment gateways provide encryption to keep the transaction secure as well as allow the customer to choose from multiple payment methods (credit card, digital wallet, or cryptocurrency) and send money quickly rather than waiting for checks or other methods of payment. A payment gateway approves transactions within seconds which ultimately decreases cart abandonment rates. Some other functions of a payment gateway include, enabling international payments in multiple currencies, auto-tracking payments to streamline reconciliations, offering fraud protection and prevention to minimize chargeback regulations, and even supports recurring billing for subscription-based businesses. Simply put, payment gateways help facilitate secure, flexible, and relatively fast payment processing for customers, as well as trusted payments for businesses throughout the online shopping experience.More and more businesses are using social media to promote their products as this approach provides a valuable tool to communicate and engage with their consumers. Social media includes sites and apps that enable people to connect with each other and share information using computers or mobile devices. Additionally, social media has caused a significant shift in the way brands are built as businesses can develop a community of loyal users, promote their products, and facilitate word of mouth by sharing with their users and a wealth of public. Social media also helps businesses by providing insight into a product or service, allowing the company to reshape its offerings based on the customer. The multiple angles of social media also allow the business to give customers information about sale promotions, develop trust, and improve brand development.

# B. Merits of E-commerce

E-commerce provides an array of benefits that allow it to be an integral part of any firm's business model in today's society. One of these benefits particularly evident is the ability for businesses to go global, allowing for geographic expansion. In addition to being able to reach customers across borders, it also allows for 24-hour availability, making it convenient for customers to shop at any time of day. The operational costs of E-commerce are considerably lower than traditional retail, which generally includes a store front, rent, and large staff. E-commerce also facilitates data analytics for businesses to track user behavior, help firms determine which marketing strategies may be useful, and personalize marketing. Customers also reap benefits from e-commerce; they are able to make comparisons, read product reviews, and make informed decisions on purchasing. E-commerce payment options include credit cards, UPI, wallets, and net banking, which offer various secure and flexible options for payments. E-commerce companies utilize automated features for inventory management, billing management, customer service management, etc. using tools in the area of AI and chatbots which increases efficiencies. The benefits of being an ecommerce vendor for a business are simple, as a startup it is easy to scale up and down by adding or removing products or simply expanding a new market at a minimal cost. Limiting the use of paid advertising and understanding the integration of SEO, PPC, and email marketing can direct targeted traffic and optimize visibility.

E-commerce sites are also great way to quickly promote sales and discounts, and promote them through social media. Personalized customer engagement builds loyalty and improves customer satisfaction. The return and refund process is simplified, providing trust and convenience. Newer technology such as AR and VR provide a better shopping experience through virtual try-on or previewing products. Also, the online model provides a way to be "green" by reducing the amount of paper wasted, as well as the need for physical commuting. With niche products, and niche markets, e-commerce makes it easier to reach specific audiences. E-commerce is centralized, allowing businesses to manage multiple "sales channels" like their website, mobile applications, or online marketplaces. Ecommerce allows for better inventory management and real-time updates. Additionally, it provides businesses with a competitive advantage in a fast-changing digital economy. Automated follow-ups and personalized offers make the customer relationship management process easier. Product descriptions and visual product content aid users in better understanding what they are going to buy. E-commerce is a leap in innovative and adaptive change because of its ease provided through the continual updates, and presence of digital tools. Furthermore, e-commerce also provides business insight to better assess organizational strategic decisions. E-commerce enables businesses to test out new ideas, with less risk. Lastly, customers who shop online more often, use a specific e-commerce platform because they have found it to be a secure shopping experience. This builds trust and confidence with the customer, ultimately leading to long-term customer success.

# C. De-Merits of E-commerce Website

A number of disadvantages exist in eCommerce, even though there are many advantages for both the business and the customer. One major disadvantage is the lack of a physical aspect; customers do not have the ability to touch, try on, or feel any of the products being purchased which may be a deal breaker when it comes to clothing, electronics, or furniture. This in turn can cause buyers remorse or delay the buying decision from a consumer standpoint. For the business, shipping problems or delays also come up frequently. There is no immediate fulfillment as there is with in person shopping; from the moment an order is made to when it is delivered via shipping can take time and the reliability can vary as well. For some products that are breakable or perishable during shipping, there is always the chance that the product may get damaged in transit which can also cause the customer un-happiness. Now we come to security and privacy, which has almost become the biggest concern among consumers for online stores. eCommerce businesses are frequent targets of a cyber attacks and data breaches. Sensitive information about a consumer such as credit card numbers, and personal information can also be exposed to hackers if these eCommerce sites are not protected properly. High competition is also taken into account; as a consumer now, it is easy to comparison shop and find the best deal and since there are so many platforms to shop on, businesses can be forced to lower their profit margin from high shipping prices to stay competitive. Last and certainly not least, the success of eCommerce is measured by the performance of the website and its users.

Technical difficulties - slow loading speeds and the website crashing - can be infuriating for users, not to mention jeopardizing sales. If the site doesn't operate due to poor connectivity or if the online retailer is in an area where connectivity is poor, customers could be left out. If the web platform isn't mobile optimized, it could also leave users out; major segments of consumers do their shopping on mobile devices. Returns and refunds are another obstacle; returns and refunds may be already bad for consumers and difficult, costly and time-consuming for the business. Some consumers also find the returns process confusing since the return process often involves packaging the item up and shipping it back. Finally, limited customer service is a big drawback. Online retailers don't have a sales staff standing by ready to help customers as they do in retail store environments. Typically the only customer service available is through Facebook Messenger chat, chatbots, or sometimes by email; each typically has slow or no personalized response. For users that require in the moment human interaction, dealing with a bot can be irritating. All together, eCommerce may have changed shopping forever,

but these disadvantages reinforce the necessity of continuous improvement and adaptation of online retail platforms that must address changing consumer needs and expectations as indicated and reported in previous study literature.

## **II. LITERATURE REVIEW**

Significant research has been dedicated to the dynamic nature of e-commerce, given its increasing reliability as a topic of significant research due to its relevance to the evolving global business environment and consumer consumption. A comprehensive SWOT analysis that synthesized various streams of literature regarding ecommerce by Muhammad and Samin [1] explained its relevancy to online transactions. This included considerations towards the use of internal or external environment capabilities to satisfy an opportunity for strength through positioning away of weaknesses through cost savings and efficiency and expand access, but also identified security concerns as weaknesses in the ecommerce framework. The SWOT provides a useful framework for determining the strategic nature of planning for positioning, in the context of a digital environment. Urban-rural disparity affect the pace of e-commerce adoption. Blasio [2] examined if digital divide exists in Italy, noting that degree of a digital divide will hinder equal development amongst businesses, people and economic opportunity. These authors notion suggest broader comprehension of open internet and digital literacy needs to be considered in suggesting an equal footing towards development.

India's fast evolving digital economy has also produced a wide array of research. Chanana and Goele [3] provided a synthesis note reviewing the growth of e-commerce from its historical origins to current challenges, and the framework that e-commerce has built in India has positive prospects for continued e-commerce growth, in accordance with the increase in internet users, increase smartphone usage and consumers acceptance of digital platforms. Mitra [12] stated there will be structured similarities due to most key policy programs stating principles such as surface infrastructure investments (for AIIR & rail), e-commerce supplementing government policy sectors, and various changes in the market development that can lead to growth. There is a strong effect that E-Commerce has had on financial services, as described by Chou and Chou [4] who noted internet banking has revolutionized financial services by making it more convenient and less expensive to deliver operationally. The behavioral aspect was investigated further by D'silva et al. [5] who found that while teenagers know about internet banking, they are still deterred because of security concerns. Dutta and Dutta [6] also researched customer perception in the case of HDFC Limited, noting the impact of service quality and digital innovation on customer satisfaction.

With regard to technology-enabled customer services, Hsieh [7] explained how self-service technology can deliver competitive advantages through cost or user experience reduction and Ozok et al. [13] showed that effective customer relationship management increases user preferences and satisfaction in e-commerce. In 2015, IAMAI state that India would have more than 402 million internet users, overtaking the US (200 million 2016) in a market where the e-commerce revenue was estimated to reach \$38billion in 2016. For context, the global reached 3.2 billion internet users in 2015, and this illustrates for ecommerce businesses the number of customers accessible to them (Internet World Statistics 2015). The other factors of technology have been beneficial and have innovated the way e-commerce business is conducted in many areas. Moore [11] highlighted autonomous vehicles as the next major disruption for e-commerce logistics and automated delivery systems while Nelson [14] predicted that the introduction of 3D printing could also transform logistics. as it allows consumers to purchase products that can be produced and delivered locally (eliminating transportation costs associated with production). Both 3D printing and autonomous vehicles challenge conventional supply chains. The idea of cross-cultural comparisons adds another dimension to the discussion. Pyun et al. [15] completed an expansive study on internet banking in the US, Japan, and a collection of European countries, showing that differences in culture, business practice, and regulation, would influence adoption. This reinforced the notion of local approaches in international e-commerce.

Customer service also remained a necessary discussion. Rust and Chung [16] offered marketing systems based on ideas pertaining to long-term relationships with customers, that also highlighted service quality as being necessary to maintain customer relationships. Additionally, Snellman and Vihtkari [17] incorporated the idea of customer complaining behaviours arising from a technology-based encounter, and determined that while technology is 'convenient', the use of technology raises customer expectations, and consequently, frustration when things go wrong.

Finally, in their text on e-marketing, Strauss, Ansary, and Frost [18] have written about the use of every type of digital tool, in a result-centric manner, aimed at leveraging any form of e-marketing (e.g. search engine optimization, social media, customer relationship marketing systems) as if they are one [18]. They took a more holistic perspective of the triadic relationship between marketing, technology, and engagement, which represented the need for greater strategic concurrentness in the digital marketplace for ecommerce.

# **III. FUTURE OF E-COMMERCE**

Chances are high that e-commerce will evolve an advanced shopping experience via new technologies like artificial intelligence, augmented reality, and voice assistants that do personalization with efficiency. Customers will experience shopping in a way that includes new immersive designs that allow for virtually trying on products or some form of visual search. With mobile first design and Progressive Web App (PWA) for speed and app-like experience across any and all digital touch-points, the e-commerce experience will be redefined. Social commerce will grow as a channel, with people able to shop directly within their social media platforms such as Instagram and TikTok. Shopping will also have an experiential aspect by enhancing a shopping experience with live-stream shopping events. Shopping will also involve shopping led by social media influencers. Ecommerce delivery will continue to achieve customer expectations for same-day delivery, if not with drones in the near future, while sustainability will achieve priority and visibility again, as we see brands focused on eco-friendly packaging and ethical sourcing. Data privacy will also shift into our everyday experience in relation to businesses relying on first-party data or less privacy-sensitive data. Customers' expectations of fast-checkout experiences will rise. Augmented reality will enable customers to visualize a product in a physical setting; and future purchases will be influenced by reviews and/or user-generated content. Overall, e-commerce will become more intelligent, immersive, ethical, and customer-centric.

# **IV. CONCLUSION**

In the current technology-infused, fast-paced environment small, medium and large businesses continually re-evaluate their products and services to identify ways in which they can continuously improve upon them, in order to better meet the shifting consumer expectations of better, cheaper, and faster. Whether or not a company uses advanced technology, it is important for them to shift their focus away from standardization in accounting and other business processes. For businesses of all types, rapid technological advances mean that they can no longer simply rely on their existing consumer base and expertise; they must also look to identifying new consumer markets. E-commerce may be a widely used term and concept, however it continues to grow and is becoming a more prominent part of business strategy. E-commerce has created an innovative approach to traditional business interactions, allowing unlimited options for connection, conversion, and deeper customer engagement. Although new challenges, such as consumer trust, cyber-attacks, and stiff competition have arisen with the online business model, through effective planning, strong ethical business practices, and technology, the challenges of operating an e-commerce business can be successfully built into the business. Like any small business the planning stages of the e-commerce business should be carefully considered, including determining how ecommerce can help achieve a company's goals, whether ecommerce will be used in a B2B or B2C capacity, deciding on the marketing strategy, logistical considerations of delivery, and customer service. New opportunities and tools such as Search Engine Optimization (SEO), Social Media Marketing (SMM), cohort analysis, data mining, and Retargeting should be used to inform marketing plans and meet customers where they are in the shopping funnel. With the right strategies, businesses can harness the full potential of e-commerce to achieve long-term success, growth, and profitability in the digital marketplace.

# **CONFLICTS OF INTEREST**

The authors declare that they have no conflicts of interest

### REFERENCES

- A. Muhammad and T. Samin, "Advanced SWOT Analysis of E-Commerce," *IJCSI Int. J. Comput. Sci. Issues*, vol. 9, no. 2, pp. 569–574, 2012. Available from: https://ijcsi.org/papers/IJCSI-9-2-2-569-574.pdf
- G. D. Blasio, "Urban–Rural Differences in Internet Usage, E-Commerce, and E-Banking: Evidence from Italy," *Growth and Change*, vol. 39, no. 2, pp. 341–367, 2008. Available from: https://doi.org/10.1111/j.1468-2257.2008.00422.x
- 3. N. Chanana and S. Goele, "Future of E-Commerce in India," Int. J. Comput. Bus. Res., ISSN (Online): 2229-6166.

Available

https://www.researchmanuscripts.com/isociety2012/7.pdf D. C. Chou and A. Y. Chou, "The E-Commerce Revolution:

from:

- D. C. Chou and A. Y. Chou, "The E-Commerce Revolution: A Guide to the Internet Revolution in Banking," *Inf. Syst. Manag.*, pp. 51–57, 2000. Available from: http://dx.doi.org/10.1201/1078/43191.17.2.20000301/31227.
- B. D'silva, S. D'Silva, and R. S. K. Bhuptani, "Behavioral Aspect of Teenagers Towards Internet Banking: An Empirical Study," *Indian J. Mark.*, vol. 40, no. 10, pp. 44– 53, 2010. Available from: https://indianjournalofmarketing.com/index.php/ijom/article/ view/37362/76533
- Dutta and Dutta, "A Study on Customer Perception Towards HDFC Limited," Int. J. Manag. Sci. Bus. Res., vol. 2, no. 4, 2009. Available from: https://www.academia.edu/28671971/A\_Study\_on\_Custome r\_Perception\_towards\_HDFC\_Limited
- C. Hsieh, "Implementing Self-Service Technology To Gain Competitive Advantages," *Commun. IIMA*, vol. 5, no. 1, pp. 77–83, 2005. Available from: http://dx.doi.org/10.58729/1941-6687.1257
- "India to Surpass US with 402 Million Internet Users by 2016: IAMAI," *The Indian Express*, Nov. 20, 2015. [Online]. Available: http://indianexpress.com/article/technology/technews-technology/india-to-have-402-mn-internet-users-bydec-2015-will-surpass-us-iamai-report/
- "India's E-Commerce Revenue May Touch \$38 Bn in 2016: Assocham," *The Indian Express*, Jan. 2, 2016. [Online]. Available: http://indianexpress.com/article/technology/technews-technology/indias-e-commerce-revenue-may-touch-38bn-in-2016-assocham/
- "Internet Used by 3.2 Billion People in 2015," BBC News, May 26, 2015. [Online]. Available: http://www.bbc.com/news/technology-32884867
- J. Moore, "5 Reasons Why Autonomous Cars Will Revolutionize E-Commerce," *Blue Moon Digital*, Jun. 30, 2015. [Online]. Available: http://bluemoondigital.co/ourblog/author/jared-m/
- A. Mitra, "E-Commerce in India A Review," Int. J. Mark. Financ. Serv. Manag. Res., vol. 2, no. 2, pp. 126–132, 2013. Available https://doi.org/10.33545/26175754.2023.v6.i2c.275
- A. A. Ozok, K. Oldenburger, and G. Salvendy, "Impact of Consistency in Customer Relationship Management on E-Commerce Shopper Preferences," J. Organ. Comput. Electron. Commer., vol. 17, no. 4, pp. 283–309, 2007. Available from: https://pure.johnshopkins.edu/en/publications/impact-ofconsistency-in-customer-relationship-management-on-e-co-4
- P. Nelson, "How 3D Printing Will Revolutionize E-Commerce," *E-Commerce Times*, Jun. 21, 2013. [Online]. Available:

http://www.ecommercetimes.com/story/78298.html

- C. S. Pyun, L. Scruggs, and K. Nam, "Internet Banking in the U.S., Japan and Europe," *Multinatl. Bus. Rev.*, pp. 73–81, 2002. Available from: https://shorturl.at/5v7HN
- 16. R. T. Rust and T. S. Chung, "Marketing Models of Service and Relationships," *Mark. Sci.*, vol. 25, no. 6, pp. 560–580, 2006. Available from: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf &doi=bad52716d0bdd4dbb5c3b1ebb32e9dabb2b9eedc
- K. Snellman and T. Vihtkari, "Customer Complaining Behaviour in Technology-Based Service Encounters," *Int. J. Serv. Ind. Manag.*, vol. 14, no. 2, pp. 217–231, 2003. Available from: https://doi.org/10.1108/09564230310474174
- 18. J. Strauss, A. E. Ansary, and R. Frost, *E-Marketing*, New Delhi: Prentice Hall of India Private Limited, 2007. Available from: https://books.google.co.in/books/about/E\_marketing.html?id =yb5JDAAAQBAJ&redir\_esc=y