

A Comprehensive Study on the Opportunities and Challenges of E-commerce in Bihar

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Abstract

Bihar, a land where fertile fields paint a canvas of prosperity, is heading towards digitalization, and the future holds a promising landscape for e-commerce. Here, the convergence of technology and entrepreneurship is poised to unlock unprecedented economic opportunities. In this study, I investigated the opportunities and problems that exist in the field of electronic commerce within the socio-cultural and geographic confines of Bihar. Through an in-depth analysis of market dynamics, digital literacy, regulatory frameworks, and infrastructure constraints, the study aims to contribute valuable insights for academics, policymakers, and business practitioners. Bihar faces numerous infrastructure-related issues, such as poor internet access, unstable power supplies, and poor knowledge of technology, all of which pose significant challenges to the seamless operation of e-commerce. The state encounters a digital literacy gap, hindering the widespread adoption of e-business practices. A comprehensive understanding of digital tools and technologies is essential for leveraging the full potential of electronic commerce. On the other hand, Bihar offers a sizable unexplored market with a growing population in search of goods and services. This latent demand presents an opportunity for e-businesses to take advantage of and build a strong presence in the area. Given Bihar's predominantly agrarian economy, there exists significant potential for the development of e-commerce platforms tailored to the agricultural sector. Facilitating online trade of agricultural products can enhance market efficiency and benefit both producers and consumers. This research aims to inform strategic decision-making and foster sustainable growth in the realm of digital commerce within the state.

Keyword: E-commerce, Infrastructural constraints, digital literacy, Socio-economic factors.

1. INTRODUCTION

The e-commerce industry in India is experiencing significant growth. The growing number of internet users in India, coupled with improved internet infrastructure, has contributed to the expansion of e-commerce. Over the past few years, India has witnessed a surge in internet and smartphone users not only in urban areas but also in rural areas. As per a report released by a prominent newspaper, in year 2021, the number of internet connections saw a substantial rise, reaching 830 million, propelled by the 'Digital India' initiative [1]. Among all these connections, the majority were found in urban areas, with an overwhelmingly high percentage being wireless. The number of smartphones has also seen a remarkable increase. Social media platforms are widely accessed on smartphones, and many users discover products through social channels. E-commerce businesses can leverage social commerce by integrating their stores with popular social media platforms, enabling users to purchase directly from social posts or ads. This development has bolstered India's digital sector, with forecasts suggesting it will achieve a value of US\$ 1 trillion by 2030 [Figure-1]. The swift increase in internet usage and smartphone adoption, alongside rising incomes, has facilitated the expansion of India's e-commerce industry.



Figure 1

Additionally, this surge has led to an increase in online shopping platforms and digital payment methods. The widespread adoption of smartphones has made it easier for people to access online shopping platforms. Online shopping provides unparalleled convenience. Customers have the convenience of browsing and buying products from their homes or while on the move with smartphones, eliminating the necessity to visit brick-and-mortar stores, stand in lines, or deal with traffic. Online stores often offer a wider range of products compared to brick-and-mortar or physical stores. E-Shoppers and customers have access to an extensive and effective selection of products, enabling them to effortlessly compare their prices, specialized offers, read other customer reviews, and make well-informed choices. Also, the services are available 24x7, allowing consumers to shop at any time that suits them. The growth of digital payment methods has streamlined the online shopping experience. Secure and convenient payment methods, such as credit/debit cards, mobile wallets, UPI and other online payment systems, contribute to the increasing popularity of e-commerce. One more fact in this regard is the COVID-19 pandemic has accelerated the transition to online shopping occurred as individuals sought safer options in lieu of shopping in person. Lockdowns and social distancing measures encouraged a greater number of people to rely on e-commerce for their shopping requirements.

However, In the context of Bihar, certain specific socio-economic and geographic constraints affect overall statistics of online sales. According to a study, the distribution of e-commerce sales contribution across regions shows South India leading, followed by North India, West India, and finally, East and North East [2]. Notwithstanding the capabilities of these markets, certain larger states mentioned

below yield less than 1% of online sales each, often attributed to challenges such as connectivity issues, laws, and restrictions, or trust issues. These states are: Kerala, Bihar, Orissa, Madhya Pradesh, Assam. Metro cities are characterized by higher population densities and urbanization. The concentration of people in these areas often leads to a larger consumer base and more significant economic activities, including e-commerce transactions. Many individuals underestimate the transformative potential of e-commerce. For instance, a popular brand's 55-inch smart TV may be notably cheaper in online stores compared to its price in brick-and-mortar electronics stores. This price difference illustrates the considerable savings consumers can enjoy by purchasing smart TVs online rather than from traditional retailers. People's perceptions of online shopping can vary based on a range of factors, including their experiences, access to digital infrastructure, and cultural considerations. Bihar has a tradition of vibrant markets, commonly known as "haats" and bazaars. These are open-air markets where local vendors and artisans gather to sell a variety of goods, including traditional handicrafts, clothing, spices, and local produce. These markets are not only places for commerce but also hubs of social interaction. Festivals play a significant role in Bihar, and shopping for new clothes, jewellery, and other items is a common tradition during festivals such as Chhath Puja, Diwali, and Holi. Shopping in Bihar is not just about transactions; it often involves social interactions and community engagement. People may visit local markets not only to make purchases but also to meet friends, exchange information, and participate in community life. As a region with a rich cultural heritage and diverse population, Bihar presents a unique set of circumstances that influence the growth and development of online commerce.

2. Challenges for E-commerce in the context of Bihar

One of the major challenges for e-commerce in Bihar is digital literacy. The NSS (National Sample Survey) 78th round of the Multi-indicator Survey [3] assessed nine ICT skills among individuals which correspond to those identified by the UNO under SDG-4. For most of these skills, the Southern states consistently rank within the top five in the population possessing them, with Kerala notably surpassing all other states by a significant difference. The proportion of population possessing basic ICT skills in Bihar like use of copy and paste tools for duplicating something is very less in comparison of other states. Only 24.6% people are aware of this [Figure-2]. Ways to enhance digital literacy in Bihar could involve implementing initiatives to expand

technology access, offering programs for digital skills training, and promoting awareness of the significance of digital literacy.

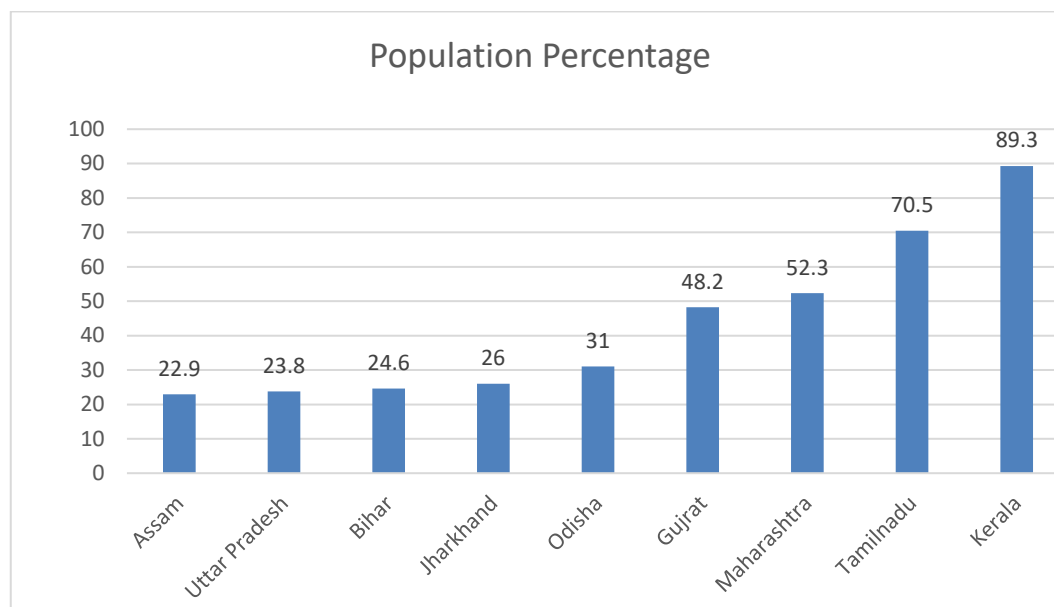


Figure 2

2.1 Factors influencing e-commerce in Bihar

(1) **Economic Factors:** Economic factors such as disposable income and purchasing power influence the extent of e-commerce adoption. Urbanized and economically prosperous regions often have higher levels of online transactions compared to less developed areas. The per capita income of Bihar is only Rs. 49,470 in year 2021-22 whereas other states like Gujarat per capita income is Rs. 2,50,100 and for Delhi it is Rs. 3,89,529 for the same period [4].

(2) **Consumer Awareness and Education:** Consumer awareness and education about e-commerce platforms play a significant role in adoption. However, the people in Bihar are less aware about these platforms.

(3) **Logistics and Delivery Challenges:** Efficient logistics and delivery services are crucial for successful e-commerce operations. Addressing logistical challenges and ensuring timely deliveries can enhance the overall e-commerce experience for consumers in Bihar. Most of the villages are not covered by popular courier services. Consumers are not getting their products on time. It discourages those consumers from visiting online stores for the next time.

(4) **Trust and Security Concerns:** Building trust in online transactions is crucial. There is a general concern among consumers about the presence of counterfeit or fake products on certain e-commerce websites. Consumer's perceptions of the originality of products on e-commerce platforms are shaped by a combination of factors, including platform reputation, customer reviews, brand trust, and the overall shopping experience. E-commerce platforms that prioritize transparency, customer satisfaction, and measures to combat counterfeit products are likely to build and maintain trust among their user base. Consumers who have had negative experiences with a particular e-commerce website are likely to hesitate in using online platforms in future.

Concerns about the security of personal and financial information can make consumers hesitant to adopt e-commerce practices. In an article, it was revealed that a substantial influx of online fraud complaints in April 2023, particularly from Uttar Pradesh, as reported by the helpline 1930 under the National Cyber Crime Reporting Portal. The Future Crime Research Foundation (FCRF), an NGO affiliated with IIT Kanpur, highlighted online financial fraud as the predominant cybercrime category between January 2020 and June 2023 [5]. Additionally, a report by the Reserve Bank of India underscored a notable escalation in

the magnitude of credit and debit card frauds over the years. All of this information could be accessed from India Today article published on October 30, 2023. In top 10 states from where cyber-crime has been reported, Bihar is at 5th position. Customers in Bihar should be educated about common online scams, phishing attempts, and other security threats. [6]

(5) Cultural Preferences: Traditional shopping practices and cultural preferences may favour in-person transactions, particularly in rural areas. Convincing people to shift from traditional markets to online platforms can be a gradual process. Traditional bazaars and local markets hold a special place in the shopping culture of Bihar. People enjoy exploring these markets for a variety of items, including clothing, accessories, and local crafts. However, there is a rising trend of online shopping in Bihar, especially among the younger population.

3. Opportunities in Bihar's E-Commerce Landscape, Exploring Growth Avenues

The expansion of internet connectivity in Bihar can play a significant role in the growth of e-commerce. As more people gain access to the internet, there is a larger potential customer base for online shopping [7]. Bihar has a significant youth population. The tech-savvy younger generation is more likely to adopt online shopping habits, providing a substantial market for e-commerce businesses. Supportive government policies and initiatives that promote digital infrastructure and e-commerce can create a favourable environment for businesses to thrive in Bihar. In Kushal Yuva Program, a Bihar government initiative, from its start with a modest number of centres and learners in December 2016, substantial growth has been achieved. Presently, the total admissions and approved centres have reached significant milestones, covering a vast majority of blocks across all districts in Bihar [8]. One of the major challenges for any digital platform is the availability of uninterrupted electricity. As per the central government report unveiled on October 2, 2023, Bihar ranks third nationwide for its number of domestic electricity consumers. While electricity consumption declined in other states, it saw an increase in Bihar [9]. These positive signs indicate the potential for e-commerce development in Bihar.

Bihar is an agrarian state with a significant portion of its population engaged in agriculture. E-commerce platforms can facilitate the online sale of agricultural products, seeds, fertilizers, and farming equipment. Bihar has a mix of urban and rural areas. E-commerce platforms that cater to the

diverse needs of both urban and rural consumers can tap into a broader market. A growing entrepreneurial ecosystem can foster the development of local e-commerce startups. Innovations and new business models tailored to the specific needs of the Bihar market can emerge. Bihar, like any other region, has a diverse consumer base with varied preferences and needs. Therefore, e-commerce platforms should understand the local market and offer products that cater to the specific demands of the population. Knowing the local culture allows for the customization of marketing strategies to resonate better with the target audience. [10]

3.1 Unexplored Product Categories for e-commerce in Bihar

Here are some product categories that could be well-suited for e-commerce in Bihar:

(1) Agricultural Products: Seeds, fertilizers, pesticides, farming tools, and other agricultural supplies are in demand, given Bihar's significant reliance on agriculture.

(2) Handicrafts and Handloom Products: Bihar has a rich tradition of handicrafts and handloom items. Selling items like Madhubani paintings, Bhagalpur silk, and other traditional crafts can attract both local and global customers. Handcrafted traditional jewellery, reflecting Bihar's cultural heritage, can be a popular choice among consumers looking for unique and authentic pieces.

(3) Traditional Apparel: Offering traditional clothing such as sarees, dhotis, and kurta-pyjamas can be a lucrative business, especially during festive seasons.

(4) Books and Educational Materials: E-commerce platforms can offer a variety of educational materials, books, and e-learning resources to cater to students and professionals in Bihar. [11]

(5) Healthcare and Pharmaceuticals: E-pharmacies and online healthcare services can make it easier for people in Bihar to access medicines, health supplements, and healthcare consultations. In rural areas of Bihar, there have been historically limited healthcare facilities, with a shortage of hospitals, clinics, and medical professionals. E-commerce platforms can provide online consultation to the patients and medicines could be delivered to the remote areas. Bihar has a rich tradition of herbal medicine. E-commerce platforms could explore offering traditional and locally sourced herbal products that cater to health and wellness.

(6) Local Cuisine and Food Products: Selling local Bihari cuisine, spices, sweets, and packaged food items can attract both local and expatriate consumers interested in authentic regional products.

Literature review

Princi Gupta and Padma Misra (2017) conducted a study on consumer buying behavior for personal care products, aiming to understand the factors influencing purchasing decisions. By analyzing consumer preferences, attitudes, and motivations, Gupta and Misra contribute valuable insights into the dynamics of the personal care product market, which is essential for businesses in formulating effective marketing strategies. [12]

A. Rosário and R. Raimundo (2021) provide a comprehensive literature review on consumer marketing strategy and e-commerce over the last decade. Their study synthesizes existing research to elucidate the evolving landscape of consumer marketing strategies in the context of e-commerce. Through an analysis of key trends, challenges, and opportunities, Rosário and Raimundo offer valuable insights into the strategies employed by businesses to navigate the digital marketplace, providing a foundation for future research and practice in consumer marketing and e-commerce. [13]

In their research, G. Antoniou and L. Batten (2011) explore the importance of protecting purchaser privacy to foster trust in e-commerce transactions. Their study underscores the significance of privacy safeguards in mitigating consumer concerns and building confidence in online transactions. By examining the mechanisms for protecting purchaser privacy and enforcing trust in e-commerce, Antoniou and Batten contribute to the growing body of literature on e-commerce security and consumer trust, offering insights that are pertinent for businesses and policymakers alike. [14]

N. Moiseev, A. Mikhaylov, H. Dinçer, and S. Yüksel (2023) investigate the effects of market capitalization shocks on open innovation models in e-commerce. Their study employs advanced multi-criteria decision-making analysis to explore the impact of market dynamics on innovation strategies in the e-commerce sector. By examining the relationship between market capitalization shocks and open innovation models, Moiseev et al. offer valuable insights into the challenges and opportunities faced by e-commerce businesses in fostering innovation amidst market volatility, contributing to a deeper understanding of the dynamics shaping the e-commerce landscape. [15]

4. Conclusion and Recommendations

The growing field of e-commerce in Bihar presents a dynamic landscape rich with both opportunities and challenges. The state's burgeoning youth demographic, expanding internet accessibility, and vibrant cultural heritage lay the groundwork for entrepreneurial endeavours. Particularly promising is the potential for bolstering local enterprises, especially in agricultural goods, traditional handicrafts, and indigenous specialties, fostering inclusive economic development. However, impediments such as rural infrastructure deficiencies, accessibility barriers, and the imperative for tailored solutions reflective of Bihar's unique socio-economic milieu loom large. Overcoming these hurdles hinges on initiatives aimed at bridging the digital divide, enhancing digital literacy, and ensuring ubiquitous connectivity. Government interventions, including supportive policies and incentives fostering digital transactions and online commerce, can profoundly shape Bihar's e-commerce landscape. Vital to this endeavor is the enhancement of logistics infrastructure to streamline operations and bolster consumer trust through reliable services. To resonate with Bihar's diverse populace, e-commerce platforms must customize marketing strategies incorporating local languages, cultural motifs, and regional sensibilities, prioritizing a mobile-centric approach given the prevalence of smartphone usage. Furthermore, proactive digital literacy campaigns are imperative to acquaint the populace with the advantages of e-commerce and ensure secure online transactions. In navigating this transformative journey, stakeholders must intertwine technological innovation with cultural sensitivity, thereby propelling Bihar towards a future where e-commerce serves as a conduit for both economic empowerment and socio-cultural enrichment.

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