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A Study opportunities & challenges of Sustainable development in E-commerce in India

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Abstract

Sustainability development is a play crucial role in e-commerce Consumers are all the time more demanding companies to have eco-friendly approaches that ensure sustainable e-commerce. The challenges sustain growth of e-commerce in the long run considering the environmental affect. E-commerce expanded rapidly in 2014 and is projected to exceed the anticipated figure of US\$ 3 trillion in sales revenue by 2030. Additionally, the rise of e-commerce can be linked to the spread of the coronavirus and governmental limitations on in-person interactions. E-commerce has transformed the way consumer experience effective marketing. The rise of e-commerce in India has transformed shopping habits, while eco-friendly goods and services have led to the emergence of large e-commerce platforms. This marketing approach focuses on the development, promotion, and distribution of products that emphasize environmental sustainability. The advancement of digitalisation has significantly contributed to enhancing the productive capabilities of economies. E-commerce platforms are certainly assisting companies in effectively launching an online shop in India. Sustainable development is regarded as essential for every nation in the current modern and technological age. Consequently, all countries are concentrating on conducting online transactions while also striving to boost the country's growth rate alongside its economic development. So, who is capturing the biggest portion of India's fast-expanding e-commerce market? Key players in this space are amazon.com, Flipkart, eBay, Alibaba Group, and FSN Ventures, which serves as the parent company for Nykaa.

Keywords: Sustainability, development, E-Commerce, technology, Sustainable Development Goals.

Introduction

Sustainable marketing, also known as Green marketing or Environmental marketing, has emerged as a strategic and ethical approach aimed at promoting products and services with minimal environmental impact. where a confluence of environmental challenges and heightened consumer awareness has led to a important shift towards eco-friendly values. The digitisation of economic operations brought about by the fourth industrial revolution also emphasises the necessity for e-commerce market participants to adopt this niche but crucial category of sustainable fashion and lifestyle products. Trust, privacy, and security concerns were the main obstacles to e-commerce in India a few years ago. Secure e-payment systems have been set up in India thanks to technological advancements, and the rise of e-commerce has altered the retail sector. A significant portion of consumers have shifted from traditional to internet shopping. Because of the advantages they provide—such as effective payment methods, improved information access, increased market access, etc.—governments in 2019 issued advisories and occasionally allowed Indian companies to participate in trade.

‘Sustainable development’ has two terms namely sustainability and development.

The term sustainability is considered to maintain the balance between humans and the ecosystem. However development means growth, progress, and positive change. These changes occur in natural, economic, environmental, social and demographic factors, etc.

Development In 2015, the United Nations unveiled the Sustainable Development Goals: eradicating poverty, ending hunger, ensuring food security, providing wholesome food, focussing on sustainable agriculture, providing inclusive and high-quality education, empowering women and girls and promoting gender equality, ensuring access to water and sanitation, providing affordable, sustainable, and modern energy sources, promoting inclusive economic growth and productive employment, developing infrastructure, achieving inclusive and sustainable industrialisation, lowering national inequality, creating safe and sustainable cities and communities, and ensuring sustainable patterns of production and consumption. Using technology on e-commerce platforms, the government improved the digital payment system during COVID-19. creating effective institutions at all levels to ensure justice for everyone, promoting inclusive social systems, laying out the path to sustainable development, and providing the resources required for an international cooperation for sustainable development. The aforementioned goals comprise 169 targets, and it is anticipated that Member States will reach these objectives by 2030. The main areas of sustainable development are (1) environment, (2) economy, (3) politics, (4) Culture.

Sustainable development refers to progress the requirements of today without jeopardizing the capacity of future generations . Within the framework of sustainable development, while using the resources of the earth for development, future generations are also expected to use the resources carefully. Development depends on the use of natural resources. Sustainable development concept is based on the economical and effective use of natural resources, physical development through the use of renewable resources, development based on social justice and equality, etc.

Objectives of the research:

1. To understand the developing trends of e-commerce in India.

2. To identify the opportunities and obstacles encountered by e-commerce in sustainable development.
3. To comprehend the present situation of sustainable e-commerce practices.
4. To explore the expansion of e-commerce in India.

Research Methodology:

The present paper fully based on secondary sources. Such as the government, semi-government, published and unpublished data various books, journal, News papers, magazines and business reports published by government of India and few important internet websites.

Literature of review:

Arora, (2019), according this study indicate that e-commerce is broader concept of transformations the purchase and sale of products and services over the internet. It is recognized that e-commerce has contributed to employment, economic vitality, and enhanced transaction efficiency. In addition, e-commerce has also brought about optimistic effects in specific industries, such as promoting market transparency and price discovery in the circulation of agricultural products. Furthermore, e-commerce has plays a major role in the digital market and has become the main mechanism for implementing the new type of economy. However, it is important to note that the level of e-commerce varies across countries, particularly in developing countries. Revinova, Svetlana,(2021), in this study finding the introduction of e-commerce has revolutionized the way businesses operate, with significant implications for sustainable development. Aburaya,(2020). According to the sources, the development of e-commerce has had a huge impact on various sectors of the economy and society. In this stage, almost all economies take e-commerce as an important development point. Charter, M., & Polonsky, M. J. (1999) This literature review provides a global perspective on green marketing, discussing the differences between developed and developing countries, and the challenges of implementing this strategy in different cultural contexts, NTC Business Books. An overview of the prospects and difficulties of green marketing is given in this literature study, along with information on the advantages and disadvantages for businesses and possible implementation tactics. A Shiprocket analysis titled "How MSMEs of

Bharat sell online" states that, in 2023, 15% of the sellers who contributed to the e-commerce ecosystem were based in Maharashtra. 9% of orders placed on e-commerce sites came from Karnataka, 8% from Uttar Pradesh, 7% from Tamil Nadu, and 6% from Delhi and Telangana. At 15%, Maharashtra was the state with the largest geographical distribution of Indian customers. Karnataka and Uttar Pradesh reported a 9% growth in purchasers' share, which was gradual. Products related to beauty and grooming accounted for 15–25% of the demand for exports. On the other hand, books made up 10–15% of the Indian e-commerce export market. According to the analysis, foreign consumers choose goods that combine traditional Indian features with modern design, such as jewellery or home décor pieces with designs that have a contemporary look. According to the report, fusion jewellery and silk sarees with modern designs were well-liked by customers worldwide. Furthermore, in the global market, consumers' decisions to buy are significantly influenced by appealing and environmentally responsible packaging. The Gross Merchandise Value (GMV) of India's social commerce was approximately US\$ 2 billion in 2020, according to a report by Bain & Company. Due to widespread mobile use, it is anticipated to reach US\$ 20 billion by 2025 and make a potentially enormous leap to US\$ 70 billion by 2030. (Granskog ,2020), According to a survey of over 2,000 German and UK consumers conducted in April 2020, consumers have already started to make major lifestyle changes in order to reduce their environmental impact and meet sustainability targets. (Sharma and Narula, 2020), In India, traditional methods of producing and disposing of textiles and apparel have proven environmentally friendly. The same industry now has a significant environmental impact to agriculture.

Opportunities of this Study:

1. **Environmentally Friendly Products:** With an increasing environmental consciousness among Indian consumers, there is a rising demand for products and services that prioritize eco-friendliness.
2. **Distinguishing from Competitors:** Companies incorporating sustainable practices and integrating them into their marketing strategies can stand out from competitors, appealing to a growing market of environmentally aware consumers.
3. **Brand Loyalty:** Firms showcasing a commitment to sustainability stand to gain heightened brand loyalty and a positive public reputation.
4. **Government Support:** The Indian government's initiatives promoting sustainable marketing and practices offer support and resources for companies seeking to adopt greener methods.
5. **Cost-Saving:** Sustainable marketing can result in cost savings by utilizing renewable energy, adopting sustainable packaging, and other eco-friendly measures.
6. **Research and development approach:** Embracing sustainable marketing opens avenues for new product and service opportunities. Research and development investments in sustainable solutions may unveil novel markets and revenue streams.
7. **Brand Reputation:** Sustainable marketing aids in building a favorable brand reputation, as consumers are more inclined to support companies dedicated to sustainability, fostering increased customer loyalty and brand recognition.

Challenges of this Study:

1. **Environmental Claims:** Ensuring the genuineness of sustainable marketing claims is crucial for companies, as consumers are becoming increasingly discerning about green washing, and companies making false or exaggerated claims may face penalties.
2. **Complexity of Rules of Environment:** Navigating intricate regulations related to environmental advertising claims, especially given the diverse regulatory landscape across India's states and territories, poses a significant challenge for companies.
3. **Supply Chain Complexities:** Companies aspiring to promote sustainable practices often grapple with aligning suppliers and partners with their sustainability goals to ensure the eco-friendliness of their products and services.
4. **Financial Problem:** The implementation of sustainable practices can be financially burdensome,
5. **Other challenges** include issues of security, consumer demand analysis, and the risk of cybercrime. Other problems include delay in delivery, maintaining warehouses, in accessibility at rural areas because of network issues. Some people in villages still don't have

good internet or know how to use it. This makes it hard for ecommerce to grow in these areas.

Current scenario and Future of e-commerce in India:

People are thinking more about the environment when they shop, and businesses are trying to sell things that are good for the planet. Online shopping is also joining in by offering eco-friendly options. This is not just good for nature but can also make businesses more money. Many sellers online now have products that are better for the environment, and websites are giving rewards to customers who choose these options. Young people, like millennials, really care about supporting brands that care about the planet. When they shop online, they look for things that won't harm the environment. Online shops are now making special sections with catalogues full of these green products. They not only sell eco-friendly things but also promise to deliver them in a way that's good for the planet, using materials that can be recycled. Some new Indian online markets are also joining in by selling products that are good for the environment. Examples of Green Initiatives by few e-commerce platforms in India-

1. Amazon intends to become the world's largest corporate purchaser of renewable energy by 2025. When it will have completely transitioned to renewable energy.
2. Google is helping more than 500 cities and local governments around the world reduce their annual carbon emissions by one gigabit by 2030.
3. By 2030, Flipkart plans to switch to electric vehicles for its whole fleet of last-mile vehicles. It has also been trying to use less packaging and more environmentally friendly packaging.
4. DHL Supply Chain India provides consistent support for their e-commerce growth. By 2025.

Online marketplaces in India:

Flipkart: Financial year 2023, Flipkart reported revenue exceeding 560 billion Indian rupees. Moreover, the revenue for this e-commerce company rose by 9% compared to the prior year. With over 75% of customers buying clothing from the Bengaluru-based company, Flipkart stands out in the online garment market because of its extensive product portfolio. The rise in digital consumers progressed steadily alongside the growing internet penetration in India. The

expansion of online marketplaces occurred concurrently with the e-commerce surge in the country. Flipkart Private Limited, based in Singapore, has invested INR 722 cr (\$90 million) in its Indian marketplace business.

- Flipkart Internet, Walmart's marketplace division, received a cash infusion of about INR 722 crore (\$90 million) from its Singaporean parent company.

Amazon: Amazon holds the top position in net e-commerce sales among global players, with Flipkart not far behind. In 2018, Walmart, the American retail behemoth, purchased the domestic retailer for 16 billion U.S. dollars and secured a 77 percent ownership stake.

- Amazon has announced plans to invest another \$15 billion in India over the next seven years. It will boost the total investment of the company in India across all its businesses to \$26 billion.
- Already, they invested huge amount \$11 billion into India.
- The company pledges to digitalize ten million small businesses, facilitating \$25 billion in exports and generating 2 million jobs in India by 2030.

E-commerce market size in India Due to the growing number of internet users and advantageous market circumstances, India possesses significant potential in the e-commerce sector. Expanding rapidly, the market worth of India's e-commerce sector reached \$123 billion in 2024.

Nykaa: The Indian e-commerce platform Nykaa has seen tremendous growth since 2018. Beginning with a revenue slightly exceeding five billion Indian rupees, the annual revenue reached over 64 billion rupees in the fiscal year 2024. The beauty market in India is experiencing considerable growth. The revenue of the Indian e-commerce platform Nykaa surged from slightly above INR 5 billion to INR 51 billion in fiscal year 2023. Nykaa encountered less rivalry compared to platforms such as Amazon or Flipkart, as it focused more on different sectors.

Current Scenario in India E-commerce platforms

The market is crowded with numerous domestic and international firms aiming to capture the largest market share. Flipkart and Amazon were

the top ecommerce retailers in the nation. Additionally, electronics and clothing are the leading shopping categories favoured by Indian shoppers. E-commerce market revenue is anticipated to hit US\$4.32 trillion by 2025. Revenue is anticipated to exhibit an annual growth rate (CAGR 2025-2029) of 8.02%, leading to an estimated market volume of US\$5.89 trillion by 2029. With an estimated market volume of US\$1.38tn in 2025, the majority of revenue comes from China. In the e-Commerce Market, the anticipated number of users is projected to reach 3.6 billion by 2029. According to a Shiprocket report, 'Personal Care' emerged as the leading product category for consumers among small businesses, representing 27% of orders in Q1 2024, with an average order value of Rs 407.

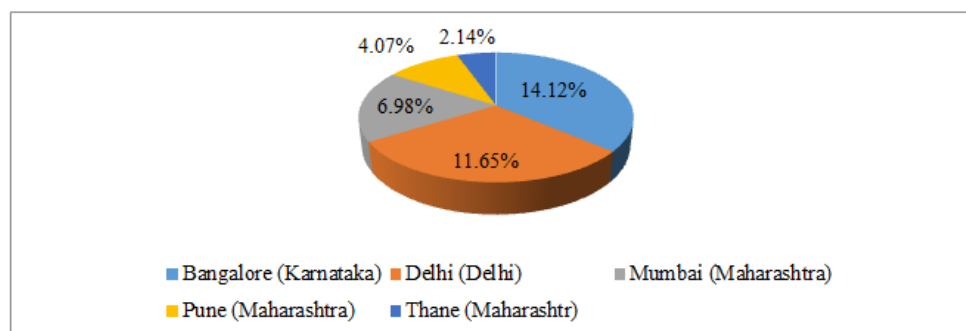
Highlight about e-commerce growth in Maharashtra:

Top contributor: Reports like the one from Shiprocket indicate that Maharashtra has the highest percentage of sellers contributing to the Indian e-commerce market, reaching around 15% in 2023.

High speed internet penetration: Maharashtra benefits from a high level of internet access and smart phone usage, facilitating online shopping behavior.

Raise urban centers: Major cities like Mumbai and Pune within Maharashtra act as significant e-

Contribution to overall e-commerce sales



Current trends in India's e-commerce industry:

The Decathlon has teamed up with Myntra to bolster its online presence in India, leveraging Myntra's extensive network to reach tier I, II, and III cities, particularly in emerging sports regions like Northeast India, while offering a wide array of sports products and planning to invest US\$ 11.40 million over the next five years to improve its retail footprint and digital capabilities.

commerce hubs, driving further growth in the region.

Rising disposable income: Increasing middle class with higher purchasing power fuels online shopping.

Improved logistics infrastructure: Better delivery networks and logistics services enhance customer experience.

Digital literacy: Growing internet penetration and smart phone adoption across India.

The Growth of E-Commerce in India:

E-commerce has expanded rapidly in recent times with new markets appearing, and all of this suggests a more promising future for the e-commerce sector overall. Without aiming to shatter any illusions, we examined certain data that highlights facts which could be unexpected for some but beneficial when incorporated into business strategy planning. We analyzed information from more than 700,000 orders placed in different marketplaces and categories in 2014 and discovered several significant trends. The breakdown of total e-commerce sales is as such: South India – 42%, North India – 35%, West India – 20%, East and North East – 7%. eBay's statistics indicate that West India has the highest proportion of active sellers at 45%, followed by North India at 30%. Kolkata, the final metropolitan area, failed to reach the top 10 and accounted for only about 1.30% of all orders.

On May 17, 2024, IKEA announced a partnership with Rhenus to enhance its e-commerce expansion in the Delhi NCR region by establishing a 150,000 sqft warehouse in Gurgaon, designed to hold and manage over 7,500 items.

Google LLC is investing US\$ 360 million in Flipkart during a funding round nearing US\$ 1.1 billion led by Walmart Inc. Investment aims to enhance Flipkart's operations and improve its digital infrastructure for improved customer service

across India, while both companies also plan to increase Flipkart's use of Google's cloud services. The domestic e-commerce giant Flipkart is poised to raise US\$ 1 billion in a forthcoming funding round, with its parent company Walmart anticipated contributing US\$ 650 million.

On August 25, 2023, Zepto, a company that is 2 years mature, attained status by obtaining US\$ 250 million in financial support.

In 2024, Amazon India attained impressive milestones, including surpassing 14 lakh sellers with three lakh new entrants, digitizing 6.2 million small businesses, facilitating US\$ 8 billion in exports, and generating 1.3 million jobs. Additionally, they committed to digitizing another 10 million businesses, enabling US\$ 20 billion in exports, and creating two million jobs by 2025, while also signing a MoU with DGFT for projects focused on enhancing MSME capacity. By 2030, India's Business-to-Business (B2B) online marketplace is projected to reach a US\$ 250 billion opportunity.

The Indian e-commerce sector is expected to increase from US\$ 125 billion in 2025 to US\$ 300 billion by 2030, indicating a compound annual growth rate (CAGR) of 19%. Between April and September 2024, with the platform handling more than Rs. 44 lakh crore net worth. In 2023, social commerce greatly changed conventional retail and e-commerce in India, with forecasts suggesting a compound annual growth rate of 31%, aiming for US\$ 37 billion by 2025. A Deloitte India Report indicates that as India progress near becoming the 3rd largest buyer market, the online market is projected to grow to US\$ 350 billion by 2030, rising from US\$ 88 billion in 2024, mainly driven by the swift growth of e-commerce in tier 2 & 3 cities. India's success of e-commerce sector can be attributed to various factors, such as greater smart phone usage, increasing wealth, and low data costs, all contributing to the expansion of e-retail. Due to extensive internet access, India ranks as the second-largest internet market globally.

Conclusion:

The E-commerce sector has significantly influenced Micro, Small & Medium Enterprises (MSMEs) in India by offering access to financing, technology, and training, leading to beneficial ripple effects on various other industries. The Indian E-commerce industry has been witnessing notable expansion and is expected to surpass the US, positioning itself as the world's second-largest

E-commerce market by 2034. Technological innovations like digital payments, hyper-local logistics, analytics-driven customer engagement, and digital advertising are anticipated to enhance growth in the sector. India is also striving to introduce an Open Network for Digital Commerce. ONDC will enable e-commerce platforms to align search outcomes across all platforms and display products and services from each. Additionally, enhance opportunities for MSMEs and support the growth of e-commerce in India. The expansion of the sector will additionally stimulate job creation, boost export revenues, enhance tax collection for governments, and offer improved products and services to consumers in the long run. In the last years, India received 125 million online buyers by 2025. E-commerce industry in India is expected to grow across various markets. India's e-retail sector is projected to sustain its robust expansion, having recorded a CAGR exceeding 43% by 2025. In the upcoming five years, the Indian online business sector expected surpass approximately 350 million consumers, driving the Merchandise Value (GMV) to reach US\$ 100-120 billion by 2025.

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Conflicts of Interest

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