

IMPACT OF CONSUMER PREFERENCES & SUSTAINABLE INNOVATIONS ON E-COMMERCE INDUSTRY IN INDIA

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ABSTRACT

E-Commerce industry in India is showing galloping upward increase in its market capture and profit generation in the present decade. The ever-high trajectory of growth is a clear indication of shift of majority population of India to online transactions and shopping. Consumers prefer the ease and convenience offered by the online shopping channels. Currently, India has around 690 million (2021-22) Internet users and is ranked globally 2nd in internet usage. With such statistics, it seems, the Internet revolution is in full swing in India. Online transactions and business have become an integral part of many in India. The increase in penetration of internet in the country has moved from 27% to 50% in the same period. Further, the traffic on e-Commerce sites has also registered a growth pattern of 69.4% order volume growth in FY 2021 to 73.6% faster GMV growth in FY 2022; showing an increase of 2.5% growth in average order value in online shopping by consumers and retailers. The transaction pattern of consumers has changed drastically over years. This paper is an attempt to study this change in consumer preferences and how it has affected the overall e-Commerce industry in India. This change sequence has an add-on feature of sales with sustainable products and services at large. This involves innovative ideas of sustainability in sale and purchase with health safety and security of personal profile.

KEYWORDS: *E-Commerce, Consumer Preferences, Online Transactions, Sustainable, Innovation Green Consumerism.*

Introduction

Only a decade back, consumers had less options available on e-Commerce sites. The buying and selling trend were carried on through physical visits to super-market stores or multiplex shopping malls. But today the consumers are empowered with unlimited online support system, payment options and variety commodities availability. This support system comprises of diverse product range available online; valuable inputs in the form of reviews and ratings from users; information about well-known and preferred brands; comparison in quality and prices amongst products available on various sites as also with offline prices. This has shifted the commanding power securely in the hands of ultimate consumers. Consumer being the boss, now has influenced the *Supply Chain Management* of e-Commerce channels to shift their focus on organic products and sustainable supplies. Behaviour of consumers is driven by their needs, wants and desires which change very frequently. This element of health and environment friendly consumption of products and services is compelling the producers to acquire green consumerism in their processes. Now a days, advertising campaigners target their potential customers using green products and practices. Demand creation through emotional persuasion has become the order of the day. It has therefore, become important for consumers to be well aware of brand positioning and the quality of products offered remotely in order to gain maximum from their green consumerism.

Statement of the Problem

It has been a challenging job for corporates all over the world to gain consumer satisfaction and sustainable growth together; particularly for online business. The important question is to incorporate economic growth along with sustainability methods to make profits without harming the mother nature.

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Many efforts are being done to infuse environment friendly support system into the product life cycle as well as supply chain. It is proposed to find ways how e-Commerce industry can well suit its processes to meet customers' preferences and infuse sustainable innovative ideas into supply chain.

Objectives of the Study

- To study the increasing awareness and changing preferences of online shopping among consumers in India over the last two decades
- To analyze the various factors influencing the consumer preferences over online retailing
- To enumerate present provisions for sustainable innovations by the Government and by the e-Commerce channels
- To locate problem areas in making e-Commerce compatible with green consumerism and to suggest measures to increase environment friendly activities.

Review of Literature

As an insight for consumer preferences, Supam Maheshwari, Founder and CEO, FirstCry, in his statement in Future of e-Commerce - Uncovering Innovations, has said – “The advent of e-commerce in India has revolutionized the approach towards running a business for best customer satisfaction and at scale. With innovation becoming the new strength, entrepreneurs are coming up with clutter-breaking ideas to create newer verticals. This has given rise to new shopping experiences to the customers. These emerging experiences are being embraced by retailers to reach the customers in newer ways. At FirstCry.com, we wanted to create an ecosystem for parents where every need of theirs will be met effortlessly as per their convenience. For such an ecosystem, we established an omni-channel business model wherein we have seamlessly integrated the web, offline and mobile platforms. For an e-commerce and retail business model as ours, the omnichannel model has turned out to be the best format in this emerging market and customer has the choice of where to buy from.”¹

1. Supam Maheshwari, Founder and CEO, FirstCry.com, *Future of e-Commerce: Uncovering Innovation*, Hemant Joshi, ASSOCHAM, www.deloitte.com/in

Highlighting the changing trend in e-Commerce industry, Ambrish Bajaj Head of Mobile, Jabong.com, has rightly commented - “m’ is increasingly replacing the ‘e’ in E-commerce, as more Indians get on to their smartphones to buy stuff online. From a technology perspective, on the small screen, discovery of the right products as well as payments present 2 key challenges as well as opportunities. Whoever can solve these challenges faster and in a sustainable manner, can challenge the status quo in e-commerce markets.”¹

Josh Bivens (2005), Economic Policy Institute, has justified sustainable efforts as “Moreover, many companies have been criticized for cost-cutting measures that make it harder to evaluate their sustainability. For example, many companies might move some parts of their business to less-regulated markets, such as by offshoring production to obtain cheaper labour. This can make it harder to assess the costs of production on workers and the environment.”²

Green economy and clean economy are also being promised at Google in their agenda in Google Sustainability on Accelerating Climate Action Carbon Commitments quoting – “We’re decarbonizing our energy consumption so that by 2030, we’ll operate on carbon-free energy, everywhere, 24/7. Our ambition is to maximize the reuse of finite resources across our operations, products, and supply chains and enable others to do the same.”³

Theophilus A. Lartey, et al has rightly commented on Sustainability practices that these “significantly affect” the offshoring activities of multinational corporations, according to an examination of data from 1,080 multinational corporations.⁴

In his article “The importance of Sustainable E-Commerce in India”, Naman Vijay has concluded “Ecommerce brands have taken several steps to lower their overall carbon footprint. This started as a response to market forces and has evolved to being a potent market strategy, with some brands making it their primary selling point.” It is pointed out that the consumers are unaware of the eco-friendly practices being adopted by the companies at large. Hence it is suggested that the ecommerce brands should initiate education programs to make green consumerism popular amongst customers of all categories.⁵

Akhilesh Ganti in his noting, has covered the services industry of investment online answering the query “Why should investors invest in sustainability?”; as – “Investors should invest in sustainability to protect the social and natural ecosystems that are essential, not only to ensure that the future is more livable and more promising for all but also to increase the likelihood of their portfolios experiencing sustained positive financial returns”.⁶

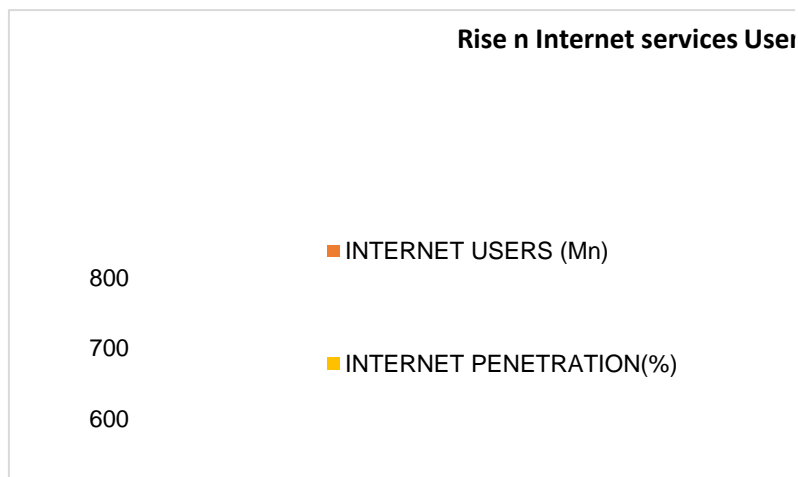
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1. Amrishi Bajaj Head of Mobile, Jabong.com, *Future of e-Commerce: Uncovering Innovation*, Hemant Joshi, ASSOCHAM, www.deloitte.com/in
 2. “Truth and Consequences of Offshoring”, Josh Bivens, August 1, 2005, Economic Policy Institute.
 3. “We Must Help Build a More Sustainable Future for Everyone”, Google Sustainability, <https://sustainability.google/commitments/>
 4. “Environmental Sustainability Practices and Offshoring Activities of Multinational Corporations Across Emerging and Developed Markets”, Lartey, Theophilus A., et al. *International Business Review*, vol. 30, no. 5, 2021
 5. “The importance of Sustainable e-Commerce in India”- Naman Vijay (2022), <https://retail.economictimes.indiatimes.com/blog/the-importance-of-sustainable-e-commerce-in-india/94709232>
 6. “What Is Investing for Sustainability Impact (IFSI)?”, Akhilesh Ganti Jan 30, 2023, <https://www.investopedia.com/investing-for-sustainability-impact-5210477#citation-5>

E-Commerce Growth Pattern in India

The spread of e-Commerce can well be studied by looking into the fast-changing figures of internet users in India over the last eight to ten years which has jumped from 100 million users recorded in the year 2014-15 to 676 million in 2020-21. The increase in penetration of internet in the country has moved from 27% to 50% in the same period (Table 1; Fig 1). India’s internet users are expected to reach 900 million points by 2025 from 690 million internet users in 2021-22, increasing at a CAGR of 45% as per published report by IAMAI and Kantar Research.

Year	Internet Users (mn)	Internet Penetration (%)
2015	100	27
2016	151	34
2017	276	34
2018	419	38
2019	571	48.4
2020	676	50

*Source: TRAI India Report 2020-21



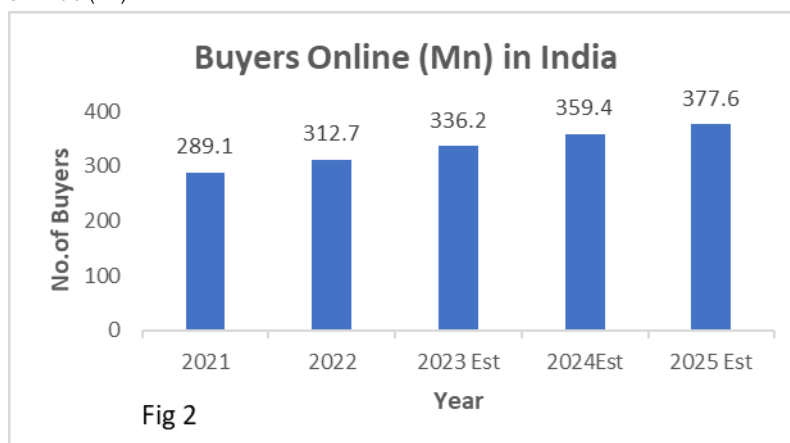
When we look at the internet and smartphone users in India, the number is much less as compared to other major economies. But the market size is ever increasing of digital literate citizens as per 2021-22 TRAI report. Table no.2 illustrates the comparative growth of internet users among major countries and Fig 2 gives details on increasing numbers of online buyers in India.

**Table 2*: Rising Internet & Smartphone Penetration
(Million users; % of total population) 2021-22**

Category Users	India	Chins	US
Internet Users	315	1011	834
Mobile Users	298	950	750

*Source: TRAI, NTIA, CNNIC, Industry Reports, Wazir Analysis

e-Commerce Buyers in India (Mn)*



*Source Statista Research Deptt. Jul 2022

e-Commerce industry has reported a 69.4% order volume growth in FY 2022 as against 44.9% in FY 2021. Hence a recovery period with a faster GMV growth of 73.6% has been seen throughout. The last FY had witnessed uncertainty due to pandemic and therefore there was limited spending - owing to reduced needs of luxury and superior items. In fact the pandemic period gave an opportunity for re-evaluation of online operations. Use of updated technology and effective supply chain solutions (SCM) were found essential to acquire market share and customer satisfaction. Its sustained impact is visible in the continuous growth of e-Commerce despite the regular operation of physical stores and decline in COVID cases. All the e-Commerce companies were able to establish reliability amongst the new customers in online transactions which has boosted their sales as well as goodwill through word of mouth. The best response was seen in Fashion & Accessories section followed by Footwear and Health & Pharma. Beauty & Personal Care section still remained the highest demanded in 2022 fiscal (Table No.3)

Table 3*: Sector Wise Order Volume Growth% & Order Value Growth% from 2021 to 2022

Sectors	Order Volume Growth	Order Value Growth
Electronics & Home Appliances	34.7	29.6
Fashion & Accessories	59.7	75.1
FMCG & Agriculture	61.7	55.5
Beauty & Personal Care	143.3	132.5
Eyewear & Accessories	66.2	60.8
Footwear	67.8	93.3
Health & Pharma	62.4	62
Others	79.5	76.4

*Source: Unicommer India Retail and E-commerce Trends Report 2021-22

Sustainable Development Pattern in India

The second impact factor influencing the e-Commerce industry the world over, is environment friendly business strategies and operations. This criteria applies on both offline and online corporate culture. When the governments of the states imply rules and procedures to safeguard the mother earth, the consumers at the end point are inclined towards sustainable innovations and change their buying preferences. The reason being that the public at large wants to safeguard their health against unnatural and unhygienic products. With increasing shift towards online transactions, consumers also force the

retailers and manufacturers to indulge in green operations and organic product developments. In the 20th century, the focus of corporates was on '*Economic Sustainability*' referring to a company's ability to carry out its business operations over a long-term with adequate resources, workers, and consumers. But in the 21st century, corporate sustainability refers to more than long-term and environmentalism. Harvard Business School gives a dual picture of sustainable business practices – 'the effect a business has on the environment, and the effect a business has on society however there should be a positive impact on at least one of these areas'. Now they focus on bringing long-term change in society rather than focussing on short-term profits. This ensures pursuing an inclusive profit earning and socially responsible corporate objective.

Green Initiative by the Government of India

In 2018, India has become a partner country in Partnership for Action on Green Economy (PAGE)** wherein all 5 UN agencies and 22 partner countries work together to transform economies into drivers of sustainability by supporting nations and regions in reframing economic **policies and practices** around sustainability. PAGE is currently supporting 22 countries to transform their economies through green economy practices. The association follows a 2030 Agenda which provides a shared set of 17 Sustainable Development Goals (SDGs), targets to achieve peace and prosperity for people and the planet. Some related agenda include – Sustainable cities & communities, Industry Innovation & Infrastructure, Affordable & Clean Energy, Clean Water & Sanitation, Good Health & Well-being, No Poverty No Hunger, Peace Justice & Strong Institutions, etc. The programs undertaken include Green Jobs, Green Industry Policy & Trade and Green Economy Learning - apart from others. The Government of India started the implementation of sustainability development policy with Indian Railways in 2020. In year 2021, Study on 'Shaping India's Inclusive and Green Economy' in the manufacturing sector finalized followed by Green Room Air Conditioners launched on the Government-e-Marketplace. The policy measures have been framed with a particular focus on India's manufacturing sector and initiate the transition towards inclusive green growth. Hence there are ample policy measures to implement sustainable development adopted by the government.

*Harvard Business School. "What Does Sustainability Mean in Business?", <https://online.hbs.edu/blog/post/what-is-sustainability-in-business>

**Sustainable Development – PAGE; <https://www.un-page.org/countries/india/>

Indian Government has initiated '*Development of a framework and institutional structure*' for eco-labelling in electrical appliance with high impact on employment creation particularly in textiles and garments industries. Development of sustainable purchasing criteria for selected product categories. The future of e-Commerce industry is based on transition towards inclusive green growth and work on making the host entities 'Centre of Excellence for Sustainable Development Goals (SDGs)' as well as some Bio-diversity projects with local communities. The Government of India has already imposed many rules and regulations regarding environmental preservation under the National Action Plan on Climate Change (NAPCC), 2008 for to adapt to adverse impact of climate change in India. e-Commerce marketplaces have been successful to market green ideas making people more conscious about their surroundings.

Sustainability Impact Goals & Methods

Over the last decade, the customers have become wiser in choosing their products and brands online which has ultimately changed consumer shopping habits who now give greater value to **sustainable** online marketplaces and products. Businesses online, in turn, have already initiated efforts to provide sustainable options to purchasers. e-Commerce companies, many of them have switched to using energy generation through sustainable sources such as wind, hydropower, and solar including Amazon, Walmart and e-Bay. Flipkart Group companies, have eliminated single-use plastic packaging in their supply chain. We also witness the growing number of sellers who offer green products.

The new Indian e-market place is emerging as environmentally-conscious, offering sustainable products in categories ranging from toys to personal care & electronic items. Customers have trolled for Ayurvedic, Organic, Herbal, Vegan products in almost all essentials and comfort categories of items. Zero wastage, No Carbon Footprint, Recycled, Bio-degradable and Eco-Friendly features are dominating the demand trend. Some of the sustainable innovative methods adopted worth mentioning include -

- following eco-friendly production processes
- following recycling and optimum use of resources during manufacturing and distribution of products and services
- prioritize changes that will deliver the greatest impact on bottom line of e-Commerce industry
- preference Shelf to eco-friendly daily use items like soaps and detergents, hand bags and carry bags; clothes and accessories; toiletries and sanitation; decoration and furnishings; power saving electric items and so on.
- exclusive sections that offer green product catalogs
- transportation and logistics using EV vehicles
- Eco-friendly Packaging
- promoting fashion wear having recycling of clothes and fabric
- Tech products recycle properly
- Technically assisted changes to core processes
- More use of software tools to control SCM
- Educating customers on green consumerism and availability of green products
- Use of Augmented Reality (AR) Technology where consumers visualize or virtually try-on products, such as apparel, eyewear, or cosmetics for better choices in one attempt.*

Sustainability Innovations Devaluation

As per study of a comprehensive set of empirical papers on e-Commerce Industry and sustainability; it is perceived that customers are more likely to buy from a brand with positive approach to sustainability. But some limitations are also attached when we talk about eco-friendly articles.

- It is universally true that organic word added to any article, increases its value to just three times of its original.
- Some online sales reports indicate that sustainability innovation in products and services, holds lucrative especially for millennials and resourceful society.
- Growth of e-Commerce has been adding dumping grounds or landfills to dispose-off their plastic waste and other products without recycling or treating them.
- Negative impact of Logistics has been totally ignored until now. The carbon footprints of Logistics services have been around 11% in world ecosystem.**
- Organic food item supply is limited as compared to demand;
- Production costs for organic items are typically higher because of greater labour inputs per unit of output and economies of scale cannot be achieved***;
- Marketing and the distribution chain for eco-friendly products is relatively costly and involves more promotional activities.

A study showed that though 86% of the Indian consumers consider natural and organic products, only 44% of them actually changed their buying behaviour. Even this is definitely a huge boom in the Indian E-Commerce market segment. A recent study by A.C. Nielsen reveals that even the Indian consumers now are increasingly aligning towards using environment-friendly, natural, and organic products****.

Conclusion

E-Commerce has no doubt made the shopping easy and feasible. There has been rapid growth in this industry. But there has been lower conversion rate among customers shifting from conventional products to sustainable goods and services; mainly due to the higher cost and expense associated with green products and lack of awareness of consumers. Many brands were launched in India with a global vision to bring green products and their delivery within the affordable reach

 *Consumer behavior in augmented shopping reality. A review, synthesis, and research agenda Javornik, 2016b; Baek et al., 2018; Beck and Crié, 2018

**environmentally conscious customers <https://retail.economicstimes.indiatimes.com/blog/the-importance-of-sustainable-e-commerce-in-india/94709232>

***The Advantages And Disadvantages Of Buying & Eating Organic Food <https://www.sustainably-chic.com/blog/advantages-and-disadvantages-of-organic-food>

****"Indians prefer eco-friendly products" – Nielsen, Press Trust of India, New Delhi, February 21, 2013

of the urban and remote areas with reasonable pricing. e-Commerce facilitates the frequently proffered business models of B2C and B2B along with sustainability features added up. But the C2C model which has flourished over last years, is not supportive of sustainability features. The customers use this C2C model online to dump their old, non-biodegradable articles to less restricted places. This needs to be avoided. There are great deals of innovative things being adopted in e-Commerce industry. Brands like Nykaa developed their own niche market for organic and chemical-free products with low carbon footprints. Much efforts are awaited to nurture green consumerism in major sections of the commodities. Government rules supportive anti-pollution initiatives of digitalization; paperless work; advanced shipping methods; zero carbon footprints and availability of online payment options; etc. - all provide encouraging sustainability efforts. Government should take steps to provide a proper legal framework so that hurdles in the growth of innovative e-commerce are reduced to minimum.

References

2. Ankur Dayal, "Why E-commerce is Eyeing a Sustainable Future?", 2021, Primarc Pecan
3. Dr.Lekh Raj, "Customer Preferences Towards Online Shopping", 2016, Asian Journal of Adv Basic Sci., Asian J. Adv. Basic Sci.: 2016, 4(2), 147-150
4. Seema Mahlawat, "Emerging Green Consumerism in India: A Study of Green Awareness, Perception & Green Brand Preferences", *Journal of Advances and Scholarly Researches in Allied Education- Multidisciplinary Academic Research*; Vol. 15, Issue No.7 Sept 2018. <http://ignited.in/p/57973>
5. Razaz Waheeb Attar, Ahlam Almusharraf and Nick Hajli "New Trends in E-Commerce Research: Linking Social Commerce and Sharing Commerce: A Systematic Literature Review", MDPI, Issue 23, 10.3390/su142316024
6. Bholanath Dutta, "Green Marketing: A Strategic Initiative for Sustainability", 2021, https://www.researchgate.net/publication/353174782_
7. Hemant Josh, "Future of e-Commerce: Uncovering Innovation", Report from ASSOCHAM and Deloitte; www.deloitte.com/i
8. S. Ramachandran, S. Rabiyaatul Basariya, "Consumers' Preference and Their Buying Choice", 2019, International Journal of Recent Technology and Engineering (IJRTE)
9. *National Action Plan for Climate Change – Report Government of India*, <http://www.nicra-icar.in/nicrarevised/images/Mission%20Documents/National-Action-Plan-on-Climate-Change.pdf>
10. Stefan Hoffmann & Robert Mai, "Consumer behavior in augmented shopping reality. A review, synthesis, and research agenda", Vol 3 – 2022, <https://doi.org/10.3389/frvir.2022.961236>
11. Gautam Dhar (Managing Director & CEO, PlantasJan), "Rise of Eco-Friendly Products In Indian Market", 2022, <https://www.indianretailer.com/article/whats-hot/retail-trends/rise-of-eco-friendly-products-in-indian-market.a7723>
12. Dr N Srikanth Reddy, Ankita Borpatra Gohain, Dr. Neel Kamal Purohit & Archana Saikia, "Consumer Attitude & Preferences towards Online Shopping", 2021, Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 3, July 2021
13. Neha Wadhawan., R K Arya, "Understanding E-Commerce: A Study with Reference to Competitive Economy", (2020, Journal of Critical Reviews, ISSN- 2394-5125, Vol. 7, Issue 8, Pp. 805-809.
14. "Future of E-commerce in India-2021" Bhojraj Yashwant Shewale (2021) Research Gate https://www.researchgate.net/publication/351441684_Future_of_E-commerce_in_India-2021
15. Neelam Chawla and Basanta Kumar; "E-Commerce and Consumer Protection in India: The Emerging Trend"- Journal of Business Ethics (2022) 180:581–604 <https://doi.org/10.1007/s10551-021-04884-3>

