

Chapter 1

INTRODUCTION

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1.0 Introduction

As a part of digital world, we know that in the world of mercantile activity & Business, The Consumer is not only the king of market but also The Sovereign who have the supreme power and authority to change the market and its product from zero to hero and from hero to zero. Now a day the customers are not satisfied to purchase or sale the goods from the local market only, but customers think big and go wider for getting the things as per his or her choice from any of the place of global market. The World of trade is now a day's does not have any region or state or country boundary and become THE GLOBAL MARKET for every consumer of any corner of the earth.

There was a time, when the consumer had to book the goods for purchasing in Advance for 10 years. In India in 1970's It was said that if a person wanted to give BAJAJ scooter to his son, he had to book the scooter at the time of birth of his son.

In the decade of the 1980's business methodology changed, and revolution was begun. In all over the world only the production-oriented mindset became worthless and the market and customer's choice all over the globe-oriented theory born. As time passed it was understood by business experts that the customer is the king of the market, and nobody can ignore the value of customers in the market. So, by giving importance to customers it would become a priority for producers to reach the customers on time anywhere on the globe.

It was the birth time of E-Commerce in the world. India was very far away and lagged in the early stages of E-commerce development., it was started in the developed country of the world. It was said that in 1979 Michael Aldrich demonstrated the first online Shopping system. Then in 1981 Thomson Holidays in the UK was the first business-to- business online shopping system to be installed. 1982 was the year when Minitel had introduced nationwide in France-by-France Telecom used for online ordering. In 1983 the California State Assembly held its first hearing on "electronic commerce" in Volcano, California.

In India we had lots of problems to implement new things for starting a business or for smooth transactions to run the business and as a consumer we have limited choices because of most of the controls are in the hand of government. They always short fall of good material, limitation of capitals and old mind set so our trade remained undeveloped for many years.

But, as time passes India adopted globalization since 1991, that marked a

significant shift towards globalization. These reforms, referred to as the New Economic Policy (NEP) or Liberalization, Privatization, Globalization (LPG).

And because of globalization, we get several results like

I. Technological benefits

Any developing country is needed technical knowledge for overall development and after economic reform India got the highest benefits of modern technology for advanced countries of the world.

II. Liberalization in the process

India was trapped as procedure problems before economic reforms but after got liberalization norms and rules made easy for starting business and industry in domestic level as well as international level. The procedure of taking licenses and permission about business expansion or development became easier and liberal so that industry sector grown fast compared with before.

III. Change the form from small scale to large scale

The Indian institutes of manufacturing and service were small and almost dependent on partnership or individual owner form. But changes in the economy resulted in the change in forms of trading, forms of size and forms of owner were completely changed. The big players are now part of the market and enhancement from small scale to large scale become seen at corporate sectors and extends the size of productions.

IV. Global agreements

In India, the situation of trade was limited and under fully controlled by Government before economic reform. The scenario was changed after reforming process now the global level agreement for trade was done like GATT and any businessman could use their free ideology for development of business at universal level. Many agreements like ASEAN and NAFTA also came into the picture for expanding business from local level to global level.

V. Open cultural boundaries

Globalization provides open ground not only for business and trading but also cultural combination. As new relations were established with more nations, their culture also entered in the nation and trade scope was increased and domestic culture became international considering many activities.

Technological advancement cuts the cost of transportation, data processing, information exchanges and communication but still some barriers are alive like

international trade rules and tariff rate for business but under the framework of GATT and WTO, many countries have gradually cut down their tariff and non-tariff barriers because of which more and more countries have opened up their current accounts and capital accounts. Gradually this increases the local economy to integrate into a whole.

All nations have upgraded their industrial infrastructure because of globalization, scientific and technological breakthroughs, and rising economic levels.

In recent years, developed countries in the west are gradually entering into developing countries where many labor-intensive industries of weak international competitiveness exist. This process of cross-country shift is pushing forward an in-depth development of economic globalization.

When internet and telecommunication technology came into the picture, the business and profession boomed via emerging E-commerce. E-business and e-commerce play an important and essential role in the robust economic development of the new global economy.

Relationships inside businesses as well as between organizations and individuals have been completely transformed using information and communications technology into business.

The burgeoning economy of a country encompasses the expansion and enhancement of its physical, financial, human, and social resources. Technological Improvement is a part of structural changes that to be made in society that represent a developing economy.

Internet development became a rocket to give boost to global economy we surely can say that earlier food, cloth and shelter were called as primary need of human life but today one more need is added in that list is “internet”.

It is now incredibly simple to acquire and sell goods and services thanks to the internet. It is convenient from any location and simplifying the process significantly. To keep ahead of fierce competition, most businesses have begun using the Internet to minimize marketing costs and, consequently, lower product prices, which has led to the growth of e-commerce.

E-commerce is a game changer that converts traditional ways of business and shopping from regular market offline to online platforms that include online store, payment, websites, and easy review and competitions between all the products with each other.

E-commerce uses technology for buying and selling services and almost all the

products. It uses technology for payment, marketing and all transaction purposes. E-commerce touches almost all the segments of business from small scales to large and very large scale also.

After 1991 the scenario of selling and shopping is changed and a new chapter in the history of the internet arises. E-commerce is commercially accepted by almost all generations, and it will become a trend to buy or sell something from an internet platform.

E-commerce is defined as "business activities conducted using electronic data transmission via the Internet and the WWW" by Schneider & Perry (2000). The world's e-commerce is being driven by the rapid advancement of information technology and the growing use of the Internet. E-commerce's accessibility feature makes it simple for local clients to go throughout the globe and enables companies to manage and oversee their operations from any location.

The purchasing and selling of goods, services, and information via computer networks using the Internet as an electronic communication and financial transaction medium is known as electronic commerce, or EC. Within the fields of information technology and business management, electronic commerce, or e-commerce, is a relatively new and emerging field. Consolidating consumers' perceptions of electronic commerce and investigating its advantages, applications, and usefulness for individuals, society, management, and organizations are the goals of this study.

According to Vladimir Zwass, the main editor of the International Journal of Electronic Commerce, "Electronic commerce uses Internetworking concepts to execute commercial transactions, improve company connections, and disseminate business information." The next step up from e-commerce was electronic data interchange (EDI-1948), and in the 1960s, a different set of businesses shared electronic data and information platforms. EDI uses a computer value-added network (VAN) to transmit and receive electronic corporate data transactions. To expand their partners and stakeholders, several companies in the marketing, sales, automation, and heavy production sectors use value chain networks to exchange and integrate information.

1.1 History of E-Commerce

1930s:

The roots of e-commerce can be traced back to the 1930s when American Airlines introduced a system to manage flight bookings. This early version worked through a "request and reply" system using teletype machines, allowing staff to check flight availability and reserve seats for passengers.

1940s:

During the 1940s, reservations were made manually using color-coded list cards. A large wallboard displayed the available seats on each flight. To improve this manual system and reduce paperwork, Edward A. Gilbert developed a method that used telegraph messages, radio-print, and telephone systems for booking and canceling seats using electromechanical devices.

1950s:

By 1952, the Semi-Automated Business Research Environment (SABRE) system was in development. This marked a major step in using computer technology in the airline industry. SABRE used electronic memory and mathematical algorithms to check seat availability. In 1953, a data processing system was developed in Los Angeles by Mr. Smiths to assist in managing reservations and sharing information more efficiently with the public.

1970s:

In 1976, the SABRE system had grown significantly. Over 1,000 travel agencies and more than 300,000 devices in 74 countries were connected to the network. This marked the beginning of a global travel technology infrastructure.

1980s–1990s:

What started as a booking system for American Airlines evolved into a global platform used by travel professionals and customers. It allowed bookings for flights, cars, hotels, theater tickets, gifts, flowers, and other travel-related services. In 1985, a user-friendly version of SABRE was introduced for tech-savvy customers, enabling direct access to make reservations. Each year, SABRE processed bookings worth around \$45 billion and handled over 4,000 messages per second. In 1995, the launch of Travelocity allowed users to buy tickets and check flight statuses online, making travel planning even more convenient.

1990s to Present Day:

Since the 1990s, mobile commerce (m-commerce) has become widespread. With the advancement of internet technologies and software such as database management systems (DBMS), enterprise resource planning (ERP), SAP, artificial intelligence (AI),

and machine learning (ML), the foundation of e-commerce has grown stronger. These technologies have helped businesses scale from handling millions to billions of transactions, making e-commerce a vital part of the global economy today.

1.2 Commerce – Development Across Generations

As time passes commerce grows with different stages of economic development. The History of commerce can be divided into different stages that is different depending upon the generation and technology.

I. Barter System

The barter system was a result of exchanging commodities which two parties agreed to fulfill their mutual requirements. It was the initial stage of trade and commerce. Here No Money transactions are there.

II Currency

The barter system proved defective because of some difficulties. The goods offered to exchange were not always equal value. Common requirements, available goods, goods exchange value not equal to other goods were problems sometime. There were difficulties with storage, transportability, double coincidence and lack of common measures of value. Here the currency will come to the picture; Money will become the more effective measure to ensure successful trade.

III. Door to door

The traditional business method in India was face to face business method. Purchase and selling were easier because selection could do easily and payment was made on the spot, so very popular and long-time running method for marketing.

IV. Mail Order

The mail or catalog is the method by which seller tries to reach out to customer and share product details, and its catalog and other information related to product. Buyers can select the items from the given catalog.

V. Super Market

Supermarkets, Departmental stores and consumer co-operative stores also one of the most popular platforms, here most of goods available under one roof. Here customers could buy all the items together without wasting time and could check items personally.

VI. Telephone Ordering

A new method of business is a telephone ordering system. It is trading over the telephone without any writing but orally explanation. In this method a sales executive called the potential customer or regular customer to get order for goods.

VII. Television

Television made a larger change in buyer's behavior and sellers planning. Now it will become easy to reach out a mass instead of individual. After innovation in the TV and media field the seller company can appeal to a lot of customers or potential customers together. In the 90's and 2000, customers were highly attracted and made purchases on appeal via TV.

VIII. E-Commerce

E-commerce is the latest generation's new medium and the fastest and simplest global way to sell and buy products and services by electronic means and payment online. It encompasses a wide management of transaction from private e mail sales to online stock trading. As new technology arrived, due to smart phones, now people become smart and save time and money by reaching new markets from the global area and find appropriate products, services and benefits. E-commerce is now becoming a term of business with access to computers or mobiles. This technology will remain new till the next generation technology emerges.

1.3 Evolution and Present Landscape of E-Commerce

E-commerce officially began in 1994 when Jeff Bezos launched Amazon.com, which marked a major shift in the way goods and services were bought and sold. Soon after, other big names like eBay, Walmart, and Dell entered the online space, contributing to the rapid growth of digital marketplaces. Today, over 8 million people worldwide engage in online transactions daily, and by 2011, global online retail sales had already surpassed \$250 billion.

E-commerce has expanded far beyond just online shopping. It now includes the trading of both physical and digital products, as well as services like digital marketing, online ordering, financial transactions, and payment processing. It also supports logistics, supply chain management (SCM), and after-sales service, along with technical and customer support. The concept has evolved into what is often referred to as Internet commerce, web-commerce, or e-tailing. Collections of various online stores are

sometimes grouped into what we call a "virtual mall" or "cybermall."

Although the terms e-commerce and e-business are sometimes used interchangeably, they are not the same. E-commerce mainly refers to the buying and selling of goods and services online, while e-business covers a wider range of business activities conducted over the internet. This includes using intranet and extranet systems to manage internal operations like human resources, marketing, strategy planning, risk management, and supply chains. E-commerce generally addresses the macro business environment such as technology infrastructure, legal frameworks, and societal impact. On the other hand, e-business focuses on the micro business environment, dealing with internal processes and management.

Between 2009 and 2015, the e-commerce industry experienced significant growth, with a compound annual growth rate (CAGR) of approximately 35%. The market expanded from \$3.8 billion in 2009 to an estimated \$12.6 billion in 2015. During this time, online travel bookings dominated the market, accounting for nearly 70% of total e-commerce activity. However, the fastest growing segment was e-retail, including both online retail platforms and marketplaces. This segment increased its market share from 10% in 2009 to 18% by 2015.

In 2015 alone, more than 100 million packages were shipped through e-commerce portals. Despite this progress, the sector represented less than 1% of India's total retail market at the time. However, it was poised for further expansion. If the growth trend continued, the size of India's e-retail industry was projected to reach between \$10 and \$20 billion by 2017–2020. This growth would be fueled by increasing demand in categories like apparel, accessories, electronics, and traditional products such as books and audio-visual items.

1.4 Exploring the Basics of E-Commerce

Basically, E-commerce is Commercial transactions of goods and services over internet. The term commerce forms the foundation of electronic commerce, as it involves the exchange of goods through buying and selling. On the other hand, commercial activities refer to business-related practices and operations aimed at generating profit. Like traditional businesses, electronic commerce involves monetary transactions in return for either physical or digital products and services.

E-commerce is a potential ocean enabling firms and individuals to ride on the

waves of profit and global presence. A few big Indian concern and many small and big concerns outside India planned to foray into E-commerce and other web-based application. Diversification into E-commerce will enable us to provide a greater range of solutions for its customers, solidifying relationships with customers and partners.

E-commerce focuses on the acquisition and distribution of products and services through the internet, operating as a complete, standalone application. It includes a complete sales process, including marketing sales customer support and communication with suppliers as a front end to enterprise resource planning. It is a new media of business bringing about a paradigm shift in underlying economics of business.

1.5 Definition of E-commerce

“E-commerce is the activity of electronically buying or selling products on online services or over the internet.”

“E-commerce is buying and selling, marketing and servicing, delivery and payment of products, exchanging information over the internet, intranets and other networks.”

“It is a contemporary business model designed to meet the needs of companies, consumers, and management by lowering costs, enhancing product quality, and accelerating service delivery.”

“E-commerce is any activity that utilizes some form of electronic communication for exchange, advertisement, distribution and the payment for the goods and services. Electronic payment system for e-commerce is improving day by day. They are far cheaper than mailing out paper invoices and processing received payments. Customers appreciate the convenience of electronic payment and save the company a lot of money.

- The International Trade Administration

“E-commerce as a commercial process includes production, distribution, marketing, selling, distribution, materials and support by electronically”

- Work Programme of WHO

1.6 Applications for E-commerce

E-commerce encompasses various sectors, each featuring distinct applications that

highlight the different ways in which electronic commerce is utilized. Below are a few examples of e-commerce applications:

1. Retail and Wholesale

Selling products directly to consumers via online platforms (e.g., Amazon, Flipkart).

B2B platforms like Alibaba for bulk and wholesale transactions.

2. Online Banking

Digital management of bank accounts, fund transfers, and bill payments.

Apps and websites provide 24/7 financial services without visiting a bank.

3. Online Booking

Booking flights, trains, buses, hotels, etc., through platforms like MakeMyTrip, Booking.com, etc.

4. Digital Marketing

Promoting products/services online via SEO, email marketing, social media ads, etc.

5. Supply Chain Management

Streamline inventory, order processing, and logistics using e-commerce tools.

6. Electronic Payments

Payments made through credit/debit cards, digital wallets (PayPal, Google Pay), UPI, etc.

7. Online Auctions

Platforms like eBay where users can bid and buy items virtually.

8. Customer Support

Chatbots, FAQs, and live chat for instant assistance and service.

9. Education and E-learning

Buying courses, e-books, and educational subscriptions online.

10. Healthcare

Booking doctor appointments, buying medicines, and telemedicine consultations.

1.7. India's E-Commerce Sector

Over the past ten years,

India's commerce industry has experienced exponential expansion.

Numerous contributing factors have led to this growth, including the rapid adoption of technology by Indian consumers, the sharp rise in internet users, new enabling technologies, creative and innovative business models, and optional payment options provided by e-commerce companies.

Furthermore, the rapid expansion of ecommerce continues unabated, and the industry expects to see a significant rise in revenue in the years to come.

The whole world accepts the power of online commerce and internet platform and of course India is not an exceptional case. According to NASSCOM, India's e-commerce market is projected to surpass \$100 billion by 2028 and reach a significant \$200 billion by 2030, driven by increasing internet penetration and digital adoption across the country. The following table illustrates Indian E-commerce market size across top four industries from 2023 & 2028 (forecasted).

In India, e-commerce is a component of practically every industry.

A few verticals that have surfaced in recent years are displayed in the following table.

Area of Business	Prominent Digital Commerce Firms
Online Furniture	urbanladder.com. Amazon, Flipkart, Snapdeal etc
Online Fashion	Jabong, Myntra, Zovi, yepme.com, limeroad, Fabfurnish, Pepperfry.com
Online Food and grocery	Zomato, Foodpanda, TinyOwl, BigBasket.com, Grofers, Uber eats, Swiggy
Online Education	Purple Squirrel Eduventures, Planceess
Online Real Estate	Magicbricks, 99acres, pistol, commonfloor, Housing.com
Online Travel	Makemytrip, yatra, cleartrip, goibibo, irctc
Online Retail	Amazon, Flipkart, Snapdeal etc
Seconds market	Olx, Cars24

Table 1.1 Promising E-Commerce Ventures in India

(Source: National report on e-commerce development in India)

In India, several e-commerce models are currently in use, including Business-to-Business (B2B), Business-to-Consumer (B2C), Business-to-Government (B2G), and Customer-to-Customer (C2C). The present study specifically focuses on the B2C model, which involves direct transactions between businesses and individual consumers. To provide a clearer understanding of this model, a table has been included

showcasing key B2C companies active in the Indian market.

The fast evolution of the major industry sectors related to e-commerce has become the reason for the transformation of the business from local to global. That means now a small town or village person from India can sell his art or product to a direct customer of the USA also. It affects almost all business strategies and consumer behavior and the very fabric of social interactions and consumer identity. After Jio launched its free internet service in India during Sep 2016 to March 2017, the internet users and usage of internet rise in India and year by year India is expanding internet services, growing smartphone usage, and increasing digital literacy, has become one of the world's most promising markets for E-commerce. Among various segments of society, women have emerged as an increasingly important consumer group, with their purchasing power and participation in the digital economy gaining significant momentum in recent years.

In the context of Gujarat, particularly in the Rajkot district, a rapidly growing urban and semi-urban population presents a unique opportunity to explore the role of women in the E-commerce revolution. Lijjat papad guruh udhyog in Rajkot is an example of women's unity & strength. One of the arm manufacturing companies named Raspian Enterprise Pvt. Ltd. is also in Rajkot which is directed and managed by a woman named Priti Patel. These are the best examples of working women in Rajkot. Nowadays boundaries are open for business, and women present themselves very well in the market.

The fast growth of e-commerce in the nation like India has been the subject of various studies, there is limited research focusing specifically on the perceptions and behaviors of women as a consumer, especially in smaller cities and towns such as Rajkot. Women's engagement with online shopping platforms is influenced by multiple factors, including socio-economic status, individual income, cultural norms, digital literacy, access to technology, and individual preferences, making it a complex area for investigation.

The main goal and objective of the research is to analysis the perception of women towards e-commerce and explore different dimension women's perception towards e-commerce in Rajkot district, Gujarat, with a focus on understanding their attitudes, preferences, challenges, and experiences while shopping online. By examining the evolving patterns of women's participation in the digital marketplace, this research intends to contribute valuable insights into how gender influences E-commerce

behaviors and how companies can better cater to the specific needs of female consumers.

The implication of this study is not only limited to understand the preferences and challenges faced by women in Rajkot but also in highlighting broader trends in women's empowerment through technology. As women increasingly take control of household spending, online shopping has become a notable device for improving their decision-making power, economic independence, and overall quality of life. Furthermore, this research will provide businesses, policymakers, and digital marketers with actionable insights to effectively engage women consumers in this emerging digital era.

Through a detailed investigation of socio-demographic variables, shopping habits, online purchase motivations, and barriers to E-commerce participation, this study will pay to a deeper understanding of how gender and locality influence online shopping behavior, eventually offering real-world references for enhancing women's experiences in the E-commerce sector.

In India E-Commerce is a platform of the modern business instead of traditional business. E-commerce (Electronic Commerce) is a vast field that is for not only buying and selling goods and services but also which includes transmitting funds or data over the electronic platform. It is required to understand E-commerce properly to both Marketers and the customers. It gives a boost to existing business and provides complete change in the traditional way of doing business. pabiben.com is an example of an E-commerce website that indicates that a woman can convert craft and culture to a successful business if given the chance and platform.

1.8 Major activities of E-commerce

E-commerce is not just buying and selling the goods but also a group of activities like...

Buying and selling products and services

The main and basic activity of E-commerce is buying and selling that is the basis of any business.

Shipping and delivery of products

Online purchase and sales is one part and the physical delivery of goods and products are another part. It requires lots of effort and proper planning and management. In E-commerce, trade companies not only sell the goods but also provide

facility of shipping goods to reach the place of customer.

Financial transactions

E-commerce is also concerned with the fulfillment of all the financial transactions related to e-trading. Payments of goods are made by net banking, debit card, e-wallets or any other means of online payment. E-commerce must provide a safe and easier gateway of payment to customers for complete whole transaction with payment of buying, shipping charges and many more.

Take care of every customer

E-commerce is fully aware of the customer's interest through different searching algorithms. E-commerce collects the data of customers regarding needs and choice. Whenever the customer searches for any product online, E-commerce kept this search in its history and run algorithm as per each customer likes and provides better services.

Sales

The fundamental activity of commerce is sales. E-commerce gives ready-made platforms to seller companies for continuous selling the products by providing marketing support, promotions, offers, and attracting customers.

Corporate development

E-commerce is a bunch of business activities. E-commerce is also one of the pushing factors of development of corporate as well as nation.

New product research

Only traditional products are bought and sold in traditional way of trade but after E-commerce comes into the picture the whole trend is changed. Different inventions and innovative thoughts for product development are growing every day and e-commerce launches new inventions and engages the customers with advanced inventions and new better ideas for easiness of everyday life. E-commerce provides networks for sellers to do product research on the choice of customers and in this way new and new products and services come under the platform of E-commerce which are somehow already invent through customers thought and likes.

1.9 Major Elements Impacting E-commerce Expansion in India

Technological Factors

The growth of e-commerce in India is significantly influenced by advancements

in electronic infrastructure and a robust communication network. These developments enhance access to emerging technologies, enabling businesses to better connect with their consumers and streamline operations.

Political Factors

Government initiatives such as the promotion of e-governance, support for digital policies, and funding for startups and entrepreneurial ventures are fostering a favorable environment for e-commerce. These actions contribute to both the rapid expansion of the digital economy and the overall economic development of the country.

Social Factors

Widespread efforts to promote IT education, along with skill development and digital literacy programs, are preparing the population—including consumers, professionals, and potential clients—to effectively use and benefit from new technologies. This growing awareness and capability drive increased engagement with e-commerce platforms.

Economic Factors

Economic growth indicators like rising GDP, national income, and international trade are playing a vital role in supporting the e-commerce sector. Initiatives aimed at boosting exports, managing imports, and maintaining a balanced economy are encouraging the development of digital supply chains and fostering healthy market competition.

Other Contributing Factors

The rise of a digital-first culture, a skilled and tech-savvy workforce, evolving customer expectations, and the competitive landscape are also accelerating the expansion of the e-commerce ecosystem in India. Businesses are leveraging these opportunities to innovate and stay ahead in a dynamic market.

Live streaming of products is also a major factor that significantly impacts shopping behavior by building trust and creating a sense of authenticity through real-time product demonstrations. Their personal recommendations and interactive engagement during live streams make products feel more relatable and desirable and influence the buyers. This often leads to impulse purchases driven by emotional connection and social influence, as highlighted by Mingwei Li, Wang, and Cao (2022) in their study on online impulse buying in live streaming e-commerce.

1.10 E-Commerce Integration Across Business Domains

Consumer and E-Marketing

Digital marketing has significantly reshaped consumer behavior within the e-commerce ecosystem. Advanced tools such as email campaigns, electronic catalogues, and online brochures provide consumers with detailed information about products and services. Traditional telemarketing has been largely replaced by digital advertisements, including banners and pop-up ads. Additionally, technologies like electronic Customer Relationship Management (e-CRM), electronic Supply Chain Management (e-SCM), and data mining are increasingly utilized to personalize customer engagement and enhance sales performance.

Computer Sciences

The application of emerging technologies, including advanced networking, Artificial Intelligence (AI), and Machine Learning (ML), plays a pivotal role in supporting the e-commerce infrastructure. These innovations facilitate the growth of web-based platforms, increase system efficiency, and enable businesses to provide intelligent, data-driven services that meet evolving consumer expectations.

Finance and Accounting

The expansion of online financial services, such as digital banking and electronic transactions, has reduced operational costs and improved capital accessibility. These developments have proven essential in the evolution of a competitive, internet-based economy, offering businesses real-time financial processing capabilities and secure transaction systems.

Economics

E-commerce is a growing contributor to the Indian economy, enhancing both domestic and international trade. It fosters entrepreneurship, increases access to global markets, and supports economic inclusion. The integration of digital platforms with economic practices promotes financial literacy, encourages market participation, and supports long-term economic growth. Shibana, R. (2021). Impact of E-Commerce on the Adoption of Entrepreneurship describes that Women entrepreneurs in e-commerce are largely self-driven by ambition and personal growth, with 56% showing strong entrepreneurial intent. Survey findings reveal that 53% did not view balancing family and career as a significant challenge.

Production and Operations Management

E-commerce has driven improvements in production and logistics by reducing cycle times and increasing distribution efficiency. Online platforms enable seamless coordination across departments through Enterprise Resource Planning (ERP) systems and SAP software. Customer feedback supports product customization and responsiveness. Moreover, electronic procurement and bidding processes allow for cost-effective sourcing and improved inventory management.

Management Information Systems (MIS)

Management Information Systems play a central role in the development of integrated e-commerce frameworks. Through the application of System Analysis and Design (SAD) principles, businesses enhance both front-end user interfaces and back-end operations. MIS tools support real-time data access, decision-making, and workflow optimization, thus contributing to the smooth operation of digital enterprises.

Human Resource Management (HRM)

The human resource dimension of e-commerce is increasingly driven by feedback analysis, digital reviews, and enhanced internal communication. By adapting to consumer demand and market trends, businesses can align employee skills with strategic goals. Investing in training and skill development for digital tools ensures that personnel remain competitive in an evolving marketplace.

Business Law and Ethics

With the rise of global virtual commerce, organizations must address a variety of legal and ethical concerns. These include copyright compliance, consumer data protection, and cybersecurity. Establishing clear legal frameworks and ethical standards is essential to maintaining trust and ensuring secure electronic transactions in the digital economy.

1.11 E-commerce as a Pillar of the Digital Economy

A STRATEGY

For strategy planning e-commerce is very beneficial. It is helpful to target even each customer. Sometimes consumers are not aware that their wishes and desires are already recognized by sellers via e-commerce. Every product needs a customer and so every business tries to reach its customer, here e-commerce comes into the picture it is very easy to reach large scale audience via using e-commerce and social media.

TECHNOLOGY

E-commerce has advanced technology systems to attract all contributors to do buying-selling activities, and all supporting activities related to business. E-commerce uses advanced mobiles, ultra-modern computer systems and fast internet that helped to spread e-commerce technology very fast.

A SYSTEM

With the help of internet facility, E-commerce creates a well-established system for all audiences like the present large number of goods and services with product range, price comparison, reviews of other customers, information about the products, safe payment system, tracking orders etc. are well organized system of E-commerce.

SEPARATE BUSINESS

E-commerce itself is a additional independent enterprise in the modern economic world. Websites developing, new online payment systems, data tracking and data collecting systems have emerged via E-commerce. Teaching and learning about E-commerce is a study of customer behavior and it is also part of e-commerce. A new type of ware-houses system and a new type of advanced logistics has been developed to push E-commerce infrastructure.

A SALES APPROACH

E-commerce is a new style of jumble sale and advertising approach where buyers and sellers can meet via social media and many other platforms that can give them experience of live shopping through pictures, videos, product rating and other information.

1.12 Why E-commerce Matters

"The advantages of e-commerce extend across three primary stakeholders: businesses, consumers, and society at large."

1.12.1 How E-commerce Benefits organizations

Global Marketplace

E-commerce has enabled businesses to transcend geographical boundaries, allowing them to tap into both domestic and international markets. Many Indian companies that initially catered only to local consumers are now leveraging digital

platforms to export goods and services worldwide. This global reach has opened new revenue streams and enhanced brand visibility in foreign markets.

Operational Cost Savings

One of the key benefits of conducting business electronically is the significant reduction in operational expenses. Online businesses focus on minimizing costs related to order processing, inventory management, production, and logistics. The use of automated systems and efficient supply chain models helps streamline operations and reduce overall expenditure.

Mass Customization

E-commerce platforms have adapted to the evolving behaviors and preferences of online consumers. By analyzing user data and engagement patterns, businesses can design personalized marketing strategies. Customer requirements are collected in real time, enabling the delivery of tailored products and services using Just-In-Time (JIT) methodologies. This approach not only enhances customer satisfaction but also optimizes inventory and production efficiency.

Digitization of Products and Processes

With the integration of smart technologies, companies are now able to interact with customers digitally, providing them with real-time updates and personalized experiences. The digitization of both products and internal processes—ranging from order tracking to supply chain management—has significantly improved business efficiency. Through internet-enabled platforms, organizations manage operations more effectively while maintaining high levels of customer engagement.

1.12.2 How E-commerce Benefits Consumers

24/7 Access for Customers

E-commerce provides customers with the convenience of shopping around the clock. This continuous access allows them to browse products, check account balances, make payments, gather travel information, and perform various other activities at any time of the day or night. This flexibility enhances the overall shopping experience by eliminating the constraints of traditional store hours.

Greater Variety for Consumers

Online shopping offers consumers an extensive range of products and services, often surpassing the variety available in physical stores. Additionally, customers can explore multiple websites to compare products, evaluate their features, and assess

prices, giving them the freedom to choose the best options that meet their preferences and budgets.

Enhanced Delivery and Distribution

E-commerce platforms have streamlined distribution processes, ensuring faster and more efficient delivery of both digital and physical products. Customers can track their orders in real time, monitor the status of shipments, and receive updates via email or notifications. Furthermore, e-commerce businesses use advanced supply chain management systems to optimize inventory and meet customer demands, often offering discounts and promotions to loyal customers.

1.12.3 How E-commerce Benefits Society:

Promotes Flexible Work Practices

E-commerce offers greater flexibility in work practices, enhancing the quality of life for both consumers and suppliers. It provides a more comfortable, stress-free working environment, benefiting all parties involved. By eliminating the need for physical travel, both buyers and sellers save time and reduce commuting costs, fostering more efficient interactions in online platforms.

Connecting People

E-commerce bridges the gap between urban and rural communities by providing equal access to products and services. Consumers can access a wealth of information online, interact with other users, and read reviews that help them make informed purchasing decisions. This connectivity ensures that customers stay updated with the latest offerings and gain valuable insights into the products and services available on the internet.

Enables Delivery of Public Services

The digitalization of public services has made them more accessible to a wider audience. Services such as online consultations with healthcare professionals, information about medications, e-tax payments, and various e-governance offerings are now available online. This convenient access to essential services enhances the overall convenience and effectiveness of public service delivery for e-commerce users.

1.13 Web-Based Products and Services Availability:

E-commerce allows customers to purchase goods and services through the

Internet using a web browser. Michael Aldrich pioneered e-commerce in 1979, laying the foundation for what would become a rapidly expanding sector. As online commerce grew, the concept of digital advertising also gained traction in India. E-commerce encompasses a range of online shopping models, such as e-stores, e-commerce platforms, online retail, web-based businesses, and virtual shops. Today, Business-to-Consumer (B2C) e-commerce is flourishing, with platforms like Snapdeal, Amazon, and eBay offering customers the ability to shop conveniently online. Retailers now provide various digital interfaces through their own websites to enhance the shopping experience for consumers.

With the growth of e-commerce, businesses have focused on fulfilling customer needs online and building customer loyalty by engaging them through web platforms. E-commerce companies utilize diverse marketing strategies to assess various factors that encourage customer loyalty and active online engagement. Several key factors influence consumer perceptions of e-commerce, including the convenience of shopping, ease of use, satisfaction with products and services, online security, and the privacy of personal data. Our research aims to explore customer perceptions of online shopping and the factors that contribute to their trust and satisfaction in e-commerce platforms.

Electronic commerce or Internet business is incredibly well known as E-commerce. E-commerce requires an internet or network platform as a medium of transaction. It gives an interface for buying and selling of services and products via internet.

E-commerce platform is a bridge for paperless exchange of business information using Email, fund transfer using applications or websites like Myntra, Flipkart, eBay, Amazon, Meesho, Nykaa etc. Most e-commerce websites provide facility of online payment system where different e-payment methods are used like card payment, net banking, wallet payment system for money transaction for buying and selling products.

The Internet has revolutionized the way people shop, offering new avenues for electronic shopping. Customers now use the Internet for a variety of purposes, including obtaining product information, communicating online, engaging in online banking, and making purchases. With these advantages, the Internet has rapidly become a primary platform for communication and online business. As more consumers turn to online shopping, e-commerce has become an essential tool for purchasing products, making

payments, and performing secure financial transactions.

For many consumers, online security and the privacy of personal information are crucial considerations. There's often a noticeable gap between the number of people who visit e-commerce websites and those who complete a purchase. Many consumers use shopping carts while browsing online but make their final purchase only when special deals, promotions, or attractive offers are available. It's important for e-commerce companies to understand consumer perceptions of online shopping and identify the factors that influence their purchasing decisions. By gaining a deeper understanding of these factors, businesses can better serve their customers and enhance their online shopping experience.

1.14 Features of E-commerce

1. Expanding the reach for new customers
2. Accelerated time-to-market
3. No time restrictions
4. Lower costs
5. Variety, Convenience, and Secure way of selling online
6. E-commerce business can go global
7. Streamline and manage the inventory management
8. Customer data insights
9. Business growth

1.15 Drivers of E-commerce

1. Universal market, Universal customers, Universal products, Universal Collaborations, Universal resources & network
2. Universal customers
3. Universal products
4. Universal collaborations
5. Universal resources & network

1.16 Category and model of Business

The category and models of business are as follows:

1. Business-to-Business (B2B)

B2B stands for Business to Business. B2B e-business is a smart business. It is an interaction between two or more businesses. In this form of e-commerce, a business firm places orders for suppliers with another business firms directly via the internet. The data sharing is also done by electronic platform that reduces tedious paperwork process. Business to Business e-commerce improves small and medium level enterprises for new business opportunities and reduces the cost factors.

2. Business-to-Consumer (B2C)

B2C stands for Business to Consumer. B2C e-commerce means the sale of goods or services by the business entities to the customers as individuals over the internet. The most common of all the e-commerce models is B2C. B2C e-commerce involves selling goods and services to consumers. It allows them to browse the product catalogue, select products or services and complete the order online.

In B2C transactions the interaction is between a consumer and the preferred business. For example, Flipkart sells goods to its consumer online. In this category of e-commerce, businesses use the internet to offer to consumers sales and services around 24×7×365. Websites like Amazon, Flipkart, Rediff etc.

A small portion of e-commerce is business to consumers as opposed to B2B though B2C is the most popular form of e-commerce.

3. Consumer-to-Consumer (C2C)

C2C stands for Consumer to Consumer. This is a technique of e-commerce where transactions or interaction done between Consumer to Consumer. An electronic platform is provided by third party doing auctions on sites and one can virtually sell and buy goods, for example OLX.com/Bid or Buy.com etc.

This form of e-commerce is nothing but the cyber version of the old auction houses of the past. If anyone wants to buy or sell anything, he must post a message (text/photo) on the sites, provide details of the goods and expected price for it and wait for interested customers to take a reaction. The buyer gets contact with the seller through the internet medium and if the deal is completed once, the amount of the price paid by one party to another.

The primary goal of Consumer-to-Consumer (C2C) e-commerce is to facilitate connections between buyers and sellers, helping them locate each other more easily. Through this model, customers can benefit from increased competition for products, allowing them to find items that might otherwise be hard to discover. C2C e-commerce provides opportunities for both buyers and sellers to achieve greater profitability by

enabling direct transactions between them.

4. Consumer-to-Business (C2B)

In the C2B e-commerce model, consumers offer products or services to businesses, who then decide to purchase based on favorable conditions. This reverses the traditional B2C model, empowering consumers to dictate terms. Technology and media play a crucial role in facilitating these consumer-driven transactions.

For example, a consumer wants to go on vacation and for that he requires to book resort, but he leaves conditions about price and facilities, using website data any party is ready to serve the transaction would be completed as trade.

This model is absolutely controversy of traditional B2C model. Here the customer is Sovereign, he puts demands on what he wants. He knows his importance in the market. Media, Internet, and less cost technology such as computer system mobile helps this model for development.

5. Business-to-Government (B2G)

This distinct type of e-commerce model is used by governments to provide platforms for businesses to exchange information and fulfill various requirements, such as bids, forms, and tax-related documents.

In the Business-to-Government (B2G) model, business units offer goods, services, or information to the government for specific costs or benefits. B2G websites facilitate these interactions, allowing corporations or business units to complete applications, submit forms, and update payments in a centralized location. This streamlines the process, making it more efficient for businesses to comply with government regulations and participate in public sector opportunities.

Overall, B2G e-commerce enhances collaboration between businesses and government entities through digital platforms, improving efficiency and transparency.

6. Citizen-to-Government (C2G)

The communication between citizen and Government is called C2G form of E-commerce.

Any data interchanged or exchange of information between these two can be known as citizen to Government model.

For example, consider an income tax return filed by a citizen to the government. When paperless systems are implemented, e-commerce is increasingly used in government tax assessment and payment procedures. Over time, this model will continue to evolve and improve.

7. Business-to-Employee (B2E)

In the B2E (Business-to-Employee) model, companies or any business unit offer products and services to their employees online.

For example, a company might provide credit card payment facilities through the company's account. With governments emphasizing cashless systems, this model is gaining popularity among industries and traders.

Income tax authorities also provide tax liability relief to companies that use e-payment systems for employee TDS. Furthermore, businesses often offer better facilities and incentives when employees use e-commerce platforms for payments or receipts.

This encourages the adoption of digital transactions within corporate environments. Overall, the B2E model supports the broader shift towards cashless and efficient workplace operations.

8. Government-to-Citizen (G2C)

When the government of any country releases information, notices, gazettes, or any official communication to its citizens, it is known as the G2C (Government-to-Citizen) model of e-commerce.

E-government services are categorized under the Government-to-Citizen (G2C) model. Numerous studies have highlighted the significance of information technology literacy in the successful adoption of electronic services that rely on Information and Communication Technology (ICT). The implementation of ICT in public service delivery contributes to increased efficiency and cost reduction. Many governments around the world are actively working to enhance their effectiveness and ensure greater consistency in service delivery through the adoption of ICT and the development of e-government initiatives.

This approach not only enhances the efficiency of service delivery but also fosters greater transparency and improves accessibility for citizens.

9. Government-to-Government (G2G)

G2G stands for Government-to-Government. It refers to electronic communications that appear between two or more government organizations, departments, and authorities.

Generally, G2G system is divided into two levels:

National Level: This involves interactions between different government entities within the same country. For example, various ministries, departments, agencies, and

authorities may exchange information, collaborate on projects, or coordinate efforts to achieve common goals.

International Level: At this level, interactions occur between government bodies of different countries. This can involve diplomatic communications, treaties, agreements, and collaborations on global issues such as trade, security, and environmental protection.

10. Government-to-Employee (G2E)

Government-to-Employee (G2E) focuses on relationships between government and employees to co-ordinate internal operations and improves internal efficiency and productivity, for example online conference and online training to employees.

The goal of electronic government (E-Government) is to offer services to their employees in a transparent and efficient way. It is useful to streamline and enhance internal processes, can engage and empower the workforce by providing online services and resources to employees.

The employees have different needs and hence the government should offer their services through multiple channels.

1.17 Affiliate E-commerce

E-commerce websites recruit different affiliates to promote different products and services. E-commerce companies work with affiliates to review products. E-commerce companies can compare influence and expertise to create sales for their business.

In affiliate e-commerce marketers invest their efforts, time and resources in marketing on the merchant's products or services on an online platform. For example, Wire cutter is an affiliate platform which reviews consumer durability and electronic goods.

1.18 New Delivery methods of E-commerce

Direct to consumer: D2C means to bypass the middle person and sell the products directly to end users. Here there is no need for distributors, wholesalers, retailers or any other outlets. Here direct deal done with a party.

The major advantage of D2C strategy is that a producer can get much control over different activities like packaging and marketing. This method can give a huge

control over brand reputation and understanding of customers easily.

White label and private label: White label refer to a product or service that is hired by a reseller who rebrands the product or service to give the special impression that the new owner made it. White label products are often used by mass production.

Private labels have subtle differences compared to white label products. In the private label model, retailers develop and sell products under their own brand name, allowing them greater control over branding, pricing, and marketing strategies. These products are widely available across various industries, including food, apparel, electronics, and personal care.

Wholesaling: In a wholesaling model, sellers provide products in large quantities at discounted rates. While wholesaling has traditionally been associated with Business-to-Business (B2B) transactions, many retailers have adopted this approach for Business-to-Consumer (B2C) markets to cater to cost-conscious customers. The benefits of wholesaling in e-commerce are higher revenue by higher volume, cost cutting, less distribution time, fast turnover ratio and less time for blocking working capital. With the comparison of traditional businesses, wholesaling in e-commerce is much easier and faster.

Dropshipping: Dropshipping is one of the fastest-growing models in e-commerce. In this approach, dropshippers function as intermediaries between customers and suppliers. Rather than holding inventory, they list products for sale and, once an order is received, they forward the purchase details to a third-party supplier or manufacturer. The supplier then ships the product directly to the customer, allowing the dropshipper to operate without managing physical stock. With the help of e-commerce, a dropshipper doesn't need to have warehouses or to maintain stock in huge volume. A party can manage dropshipping business with the help of a computer system and e-commerce facility only.

Subscription service: As early as the 17th century, publishing companies in England adopted a subscription-based model, delivering books monthly to their dedicated customers. With e-commerce subscription method promotes the re-purchasing of the goods and service again and again by the customer periodically. It is also known as membership service. Generally, subscription options are at a discount price. For example, Amazone.com provides subscription option with amazon prime member.

E-commerce has led to the emergence of subscription services across nearly every industry, offering customers greater convenience and cost savings.

1.19 Categories of E-commerce companies

Based on the existence and location of a business organization, the companies are classified under the following two categories:

1. Pure click companies
2. Brick and click companies

1. Pure click companies

These types of companies have only online existence rather than physically located at any place. They do function via websites and apps. These types of companies can be created by different software. They do not need to have offices, production places or warehouses. The big advantage of pure click companies is less capital investment and less manpower requirement. But there is a risk of fraud sometimes in such a type of company in comparison to a brick and click Company.

2. Brick and click companies

The business unit has its own entities and has physical appearance and existence along with online presence. It includes not only those companies which sell products online but also those firms which have an online portal or website to give information about the entity, For example bigbazaar.com. Brick and click companies need a huge capital investment, men power, infrastructure and strong vertical management system.

1.20 E-commerce operator in India

As Per Sec. 2(45) of the CGST Act, 2017 E-commerce operator means any person directly or indirectly who owns, operates or manages digital or electronic facility or platform for electronic commerce.

For Example: Amazon, Flipkart, Myntra, Shopclues are E-commerce operator because they are facilitation actual suppliers to supply Goods through their platform.

Amazon India	Flipkart
Firstcry	Paytm
Snapdeal	BookMyShow
Myntra	Make My Trip
Nykaa	IndiaMart
AJIO & JioMart	TataCLiQ

Table 1.2 Top E-Commerce operators in India in 2024

(Source : <https://www.clickpost.ai/blog/ecommerce-companies-in-india>)

The launch of Paytm Payments Bank in India marked a significant step in digital banking, offering services with low or zero minimum balance requirements based on customers' transaction patterns. It also provides virtual debit cards at no cost to enhance the convenience of online transactions for its users.

In terms of investment, the Indian e-commerce sector witnessed substantial interest from private equity and venture capital firms. In 2017 alone, 21 such firms invested approximately \$2.1 billion. Additionally, during the period from January to April 2018, six companies attracted investments worth \$226 million, reflecting the growing confidence in India's digital economy and its potential to boost overall economic development.

E-commerce has significantly transformed the way business is conducted in India. According to NASSCOM, India's e-commerce market is projected to surpass \$100 billion by 2028 and reach a significant \$200 billion by 2030, driven by increasing internet penetration and digital adoption across the country. The following table illustrates Indian E-commerce market size across top four industries from 2023 & 2028 (forecasted)

<u>India's E-commerce market is booming, reaching \$100B by 2028</u>		
Industry	2023	2028
Food & Beverage (F&B)	\$20B	\$34B
Fashion	\$11B	\$25B
Electronics	\$7B	\$18B
Media	\$1B	\$5B
Others		\$19B
		\$101B

Table 1.3 Market size across top four industries in 2023 & 2028 (forecasted)
(Source - <https://metyis.com/impact/our-insights/understanding-india-eCommerce-landscape>)

1.21 Benefits/Advantages of E-commerce

In today's world the internet is the key to open any lock. We cannot imagine the life without internet like a light. For running commerce and trade smoothly internet is requiring. Due to rise of E-commerce many changes occur in traditional business style. There are lots of advantages and new concepts to do business via E-commerce.

24 x 7 availability

E-commerce is open always business for buyers and sellers. There is no any time and place boundary.

Easy comparisons

E-commerce is a platform where anybody can search, compare and select products or services. It is very easy to make decisions fast and effectively. The data analyzed can support to take right decision.

Cost effective

With the help of the E-commerce cost factor is also effective the products are easy to locate and can be delivered to your door in just days. Total expense of buying and transportation of product cost all are adjusted via different offers and reward also.

Convenient for all

Every piece of information of product is at customer's fingertip. Variety of products, comparison, schemes, offers, transportation and different options are available via internet.

Many sites support all languages, voice search, 3D product photo and videos, which is convenient for users and buyers to select proper trading.

Quick Payment

The Internet is a powerful way to payment instantly, now there is no requirement to wait for cheque clear or payment with cash. Easy going process is there for payments via debit or credit card or many other payment options. Both customers and venders are benefited from different payment methods.

Global Presence

There is not any challenge for area and boundaries. Your business presence is

global, and distance is not matter in carrying out business; you can reach at any place of world and develop your trade at global level. Businesses will get customers from all over the globe, same as any person can buy products from any business all over the globe. International trade agreements also support e-commerce for expanding in all countries.

Manage cost

There is no printing or posting charges or no stationery or maintenance cost. Also, internet platforms are powerful mediums to handle and manage most all the transactions and details, so overall cost benefits are there for buyers and sellers.

Standalone place is not necessary

If you have Internet with Laptop or Mobile, then it is very easy to handle your business via E-commerce platform. Management of business only requires your presence from anywhere and from any place in the world.

Variety of services and products

Buyers can select from large number of products from local to international level. Also, different schemes and seller's options are available with different product size, color, designs and other so many options.

Brand feature

A consumer gets advantages of world class brand for buying very easily and without any additional cost through E-commerce. For example, An Indian can easily purchase American, Europeans or any other product brand via E-commerce business.

Consistent schemes

E-commerce companies often receive rewards, offers, and schemes to their regular customers. It is an effective way to get loyal customers on a regular basis.

Competitive price

An online customer can get the benefit of competition between multiple vendors. They can compare prices, goods and services from all over the world.

Cash on Delivery

Online payment is always an issue for Indian customers, due to less security or afraid from fraud. Here is an option for payment that is Cash on Delivery which is very much adopted by customers and so by the sellers also. After receiving the product customers can check, be satisfied and then can payment at the time of delivery.

Return policy

The most powerful feature of E-commerce companies that is if consumers are

not satisfied with the product or if there is any defect in the product then in a limited time duration buyers can return the product to the seller.

Customer care

Most of the company's focus on marketing and selling as well as after sales service also. All the e-commerce companies care more about customer satisfaction by providing many services. From ordering to delivery system, simplicity is added to customer service. A special department of customer care is maintained by e-commerce companies.

Replace policy

E-commerce having great facility of goods replaced if not satisfactory or any defect found in goods. Some products also can be replaced with new versions of availability. Generally, replacement cost is born by customers, in some cases companies also born the cost.

Privacy policy

E-commerce provides healthy privacy policy to customers. Nobody knows about what a customer bought and got. The data about customer choice and personal information is kept secret and not given to anybody without their consent.

Useful to medical emergencies

E-commerce is becoming more useful in medical emergencies day by day. In developed countries, a patient can get expert advice from his consultants from all over the world. Medicines for rare diseases can be obtained from other countries more easily with the help of e-commerce.

New emerging systems of entertainment

E-commerce helps to expand different aspects of entertainment areas. Netflix, Amazon prime, Disney + Hotstar, etc. are a few examples of these systems. These streaming services are widely based on e-commerce systems. New E-gaming method of entertainment is also in the queue that is expanded with the help of E-commerce.

1.22 Challenges against E-commerce

The e-commerce industry has significantly impacted micro, small, and medium enterprises (MSMEs) in India by providing opportunities for financing, innovation, and the adoption of new technologies. The Indian online e-commerce market has experienced remarkable growth and is expected to surpass the US market, becoming

the second-largest e-commerce market globally by 2034.

Technological innovations, such as advancements in e-payments, e-logistics, business analytics-driven customer insights, online marketing, and digital advertising, are expected to further fuel the growth of the e-commerce sector. This expansion will contribute to higher employment rates, increased revenue, improved tax collections, and the delivery of better products and services to online consumers in the long run.

Limited knowledge or awareness:

The biggest challenge before successful e-commerce is lack of awareness regarding electronic business medium. Most people do not understand the significance of e-transaction against physical appearance and mode of payment. Especially in developing countries or underdeveloped countries, awareness is not enough about e-commerce.

Not predictable:

The online marketplace is intangible, so the customer cannot see, touch or examine the goods before purchasing them. Traditional Indian people still do not purchase the product which can't be seen physically. An imaginary unknown risk of unseen products is swirling in many human beings.

Internet connectivity issue:

The e-commerce market is totally dependent on internet connectivity, so it is necessary to have uninterrupted internet connectivity for the customer and seller to process the orders, payment and services. Some time it is challenging to have not only in remote areas but also in urban area in India. It's unfortunate that many regions in our nation lack continuous internet access.

Privacy issue:

When there is data and transaction there is always risk and challenges to keep proper security maintain. India has not strong network system which covers full proof security of private details on internet via online trading and buying. People feel insecure about their privacy regarding personal matters such as choices, payments, and viewed goods, as poor network security systems can expose individuals to potential hacking threats, compromising their sensitive information.

Trust issues:

E-commerce companies fail to get trust of customers about faith of originality and fair transaction credit. Some people believe that e-commerce is a way of cheating

and companies do not send the goods ordered by them. These trust issues are decreasing day by day but not in wide proportion. Sometime due to lots of seasonal orders e-commerce companies cannot manage the whole transaction process.

Payment security: Payment by online mode always requires faith in the system. Though the bank and third-party tools are trying to be secure as much as possible then also when talk about hackers then it may be possible to hack the system and break the security in India easily. Still suspicious attitude exists in India. Without strong security to establish faith the system or online transaction is very hard. So still cash on delivery is preferable in India.

Not easy process: India, with its diverse population, faces unique challenges in promoting e-commerce, particularly due to varying levels of literacy and digital literacy. From advertising, offers, ordering system to payment, whole process is not easy to understand by common people, so customers are either afraid to use online purchase or not able to adopt the full benefits of e-commerce offers.

Global competition: E-commerce companies have no boundary. There is global competition. Most of Indian companies cannot afford production cost as well as provides quality value at fair rate with the competition of global world. So, these types of companies cannot maintain themselves against international level companies. Especially small companies or businesses, they must face many challenges and obstacles to establish a strong system.

Not for non-user of internet: Generally mobile and internet is used by young and well-educated people so male or female up to one age group does not habituate or aware and use of e-commerce easily. Customers of village area and illiterate people cannot use internet base commerce. Many people find language difficulties while dealing with e-commerce.

Past bad experience: In India, many people feel fear to pay and deal with e-commerce transaction due to some companies cheated people in the name of e-commerce. Sometime. Online purchase becomes subject of fraud to some customer on their past bad experience of cheating. In fact, some fraud companies have given bad experiences to their customers by delivering duplicate products, poor customer after sales services or not answering properly etc.

Lack of personal touch: Indian people are always motivated by relations and relatives. They are easily influenced by the seller's personal touch which is missing in e-commerce. Indian customers are habitual to make trust on sellers. In e-commerce

there is no direct contact between buyer and seller side in e-commerce, so it will result in a lack of personal touch. So generally, an Indian customer does not prefer to buy some products online like customers buy gold ornaments or jewelries from their known sellers instead of purchasing from E-commerce.

Late delivery: E-commerce's big limitation is late delivery, especially in case customers want emergency products. In some cases, a customer wants to get fast delivery for his quick requirements, but e-commerce parcel delivery is a factor which is not in the hand of buyer or not in the hand of seller sometimes. For example, in a medical emergency a customer must go to the local market instead of the online store. But nowadays, due to fast transaction facilities this limitation can be resolved somehow.

Some products are difficult to purchase online: E-commerce is the platform by which buyer can purchase many items from national and international market but in some cases, buyer must rely on local market for local famous product like in Saurashtra region a food item called "Ganthiya". It is not satisfactorily possible to buy and sell from an e-commerce platform. In the E-commerce field, many products/services are still waiting to be uploaded for sale.

It is difficult to try before buying: Indian customers prefer to try product before use it practically. It applies on any goods like readymade clothes, beauty products, sweets, shoes etc. But e-commerce trading does not allow a customer to try and practically it is not possible also. before buying, so customers must buy desired products in the opinion of other people.

Site Crash issues: The whole business of e-commerce stands on internet connectivity. The Internet is a prime necessity for e-commerce business. India struggles with the problems of connectivity and site crashing issues, so sometimes it creates harmful effects on online trading and e-commerce business. Default software system, activities of hackers, heavy environmental changes, disconnection of fiber cables are some causes of connectivity breaks.

Contradiction by local sellers: Obviously local markets are going down due to the e-commerce business. Therefore, they continue to try to encourage and attract the local customers to buy products from the local market instead of e-commerce. The local market sellers contradict online business and try to convince customers to purchase from the local market and save local employment.

1.23 E-commerce in India, Gujarat and Saurashtra

History shows that in recent years, India has undergone a digital revolution. Over 50% of the country's population now has access to internet-enabled devices, which, given India's large population, results in a user base of over half a billion people. These miraculous numbers have made India a hot hub for internet-based businesses, the largest beneficial, has been the e-commerce industry India's e-commerce sector is experiencing robust and diverse growth, as demonstrated by a 36% increase in order volume during the final quarter of 2020. This surge is largely attributed to the strong performance of the Business-to-Consumer (B2C) sector, particularly in categories such as apparel and electronics. Additionally, the rise of Business-to-Business (B2B) e-commerce is contributing to this growth, with numerous emerging startups focused on innovating and enhancing the digital trade ecosystem. Looking ahead, the future of e-commerce in India is set to benefit from the continued expansion of internet connectivity across the country, including in rural and remote areas, which will help drive higher sales. The growth of telecommunication networks will also offer more consumers the opportunity to engage in e-commerce, generating income and further integrating them into the digital economy. The Indian e-commerce market is expected to grow significantly, with revenue projected to reach US\$111.40 billion by 2025, up from US\$46.2 billion in 2020.

The concept of e-commerce, which involves the exchange of goods and services over the internet, was first introduced in India in 1991. At that time, the internet was almost non-existent in the country, and only a few nations around the world understood how significant online shopping would become.

By the late 1990s, more people started learning about the internet. However, for most people, it was still seen as a luxury, not a necessity. In India, things changed in 2002 when the Indian Railway Catering and Tourism Corporation (IRCTC) introduced an online reservation system. This system allowed people to book train tickets online, and it quickly became popular, showing people the practical benefits of the internet.

Meanwhile, in the United States, a company called Amazon was already laying the groundwork for what would become a massive e-commerce empire.

The real start of e-commerce in India began with Flipkart. Two engineers from IIT Delhi decided to sell books online from an apartment in Bengaluru. Their idea was similar to Amazon's. A decade later, Walmart bought Flipkart for \$16 billion. This showed everyone the huge potential of e-commerce.

When Flipkart started, the internet in India was still expensive and not easily

accessible. This limited the growth of online businesses. Mukesh Ambani, the chairman of Reliance Industries, changed this with the launch of Reliance Jio. In a brilliant marketing move, he gave away free SIM cards, offering data services at much lower prices than competitors. This made the internet affordable for millions of people. Reliance Jio played a huge role in making the internet widely available, which helped the growth of e-commerce in India. Thanks to Jio, many more people could shop online, boosting businesses like Flipkart.

Mukesh Ambani's launch of Reliance Jio had a big impact on India's trade market. First, other network operators had to lower their prices to stay competitive. This made the internet much more affordable, leading to a massive increase in the number of internet users in India. The e-commerce industry, which was already growing, received a huge boost from this.

Journalists and newspapers started saying "Data is the new oil," highlighting the importance of internet access. While this also brought new cyber security risks, people were willing to take these risks to enjoy the convenience of online shopping. They could now get anything from tea to a new mobile phone, clothes, or shoes delivered right to their doorstep.

Prime Minister Narendra Modi introduced new policies to support this growing industry. One major policy was allowing 100% Foreign Direct Investment (FDI) in business-to-business (B2B) e-commerce. This allowed foreign companies to establish and fully own e-commerce ventures in India. As a result, almost every business started creating an online presence.

Existing e-commerce businesses became very valuable. India quickly developed as a major e-commerce powerhouse, and this expansion is guessed to continue. With affordable internet access and supportive government policies, the expectations of e-commerce growth in country like India looks very bright.

E-commerce today is an amazing way to shop. It has changed traditional shopping so much that it's hard to recognize. Many people now prefer e-commerce over other ways of shopping. A few years ago, e-commerce was just a trendy topic, but now it's a normal part of daily life. People shop online everywhere—during lunch breaks at work, or during rush hour on their laptops or phones.

The popularity of e-commerce is due to rapidly evolving technology. We can even use a 3D mouse to feel the shape, size, and texture of products. Why go out to shop when you can order online, choose a shipping method, and wait for your items to

be delivered to your doorstep?

E-commerce offers so much convenience that even traditional stores are worried. While it might take a while for e-commerce to completely replace physical stores, it is possible in the future. Today's e-commerce adds excitement to our lives and is enjoyed by the whole online community.

There are some drawbacks to e-commerce, but most people are willing to overlook them because they trust the online world and hope it continues to improve. E-commerce today is the result of our efforts since the early days of online shopping. It's created by us and meant for us, reflecting our needs and preferences.

India has excellent chance of market development with E-Commerce business growth fastening every year. The E-Travel segment has grown at the rate of 70% of total commerce. As the survey reflects, E-commerce offers the need of young people which are underage of 34. Morgan Stanley recorded that the marketplace of E-commerce will emerge to \$137 billion by the year 2020. (But Corona effect changed the picture) The advent of e-commerce has changed the way India shops, especially after the exponential growth of the internet and online infrastructure of the country. In addition, the shift in consumer shopping behavior since the pandemic and an increasing share of the organized sector within retail markets created a strong foundation needed for the establishment of e-commerce in the market. With a population of more than 1.4 billion and a fast-growing economy, the number of online shoppers is predicted to increase to 427 million by 2027. Consequently, the booming e-commerce industry is estimated to be worth over 350 billion U.S. dollars by 2030.

India's E-commerce market is on path to develop the biggest market in world.

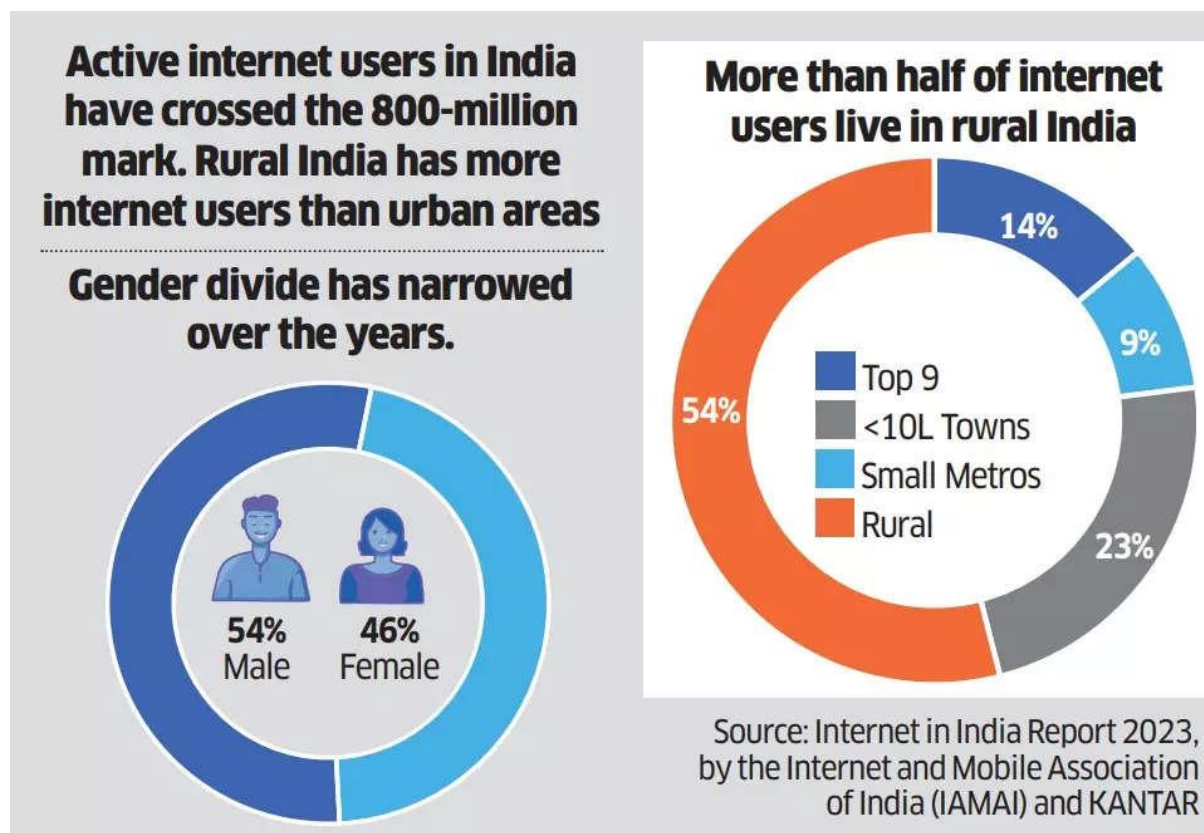


Figure 1.1 Rising Number of Internet Users in India

Source: <https://economictimes.indiatimes.com/>

By Annapurna Roy, ETtech, Last Updated: Mar 10, 2024

Mobile commerce is steadily gaining traction within the e-commerce landscape. Each year, the number of mobile-based transactions continues to rise, with their total value estimated to reach around ₹38,000 crore, according to recent research findings. Google India's Managing Director highlighted that the country is adding approximately five million new internet users every month, most of whom access the web via mobile devices. Reflecting this mobile-first trend, popular e-commerce platform Myntra recently transitioned to an app-only model, shutting down its website to focus solely on mobile users. According to Mayilvagannan and Vinitha (2024), there were 692 million internet users in India at the start of 2023, when internet penetration stood at 48.7 percent. A total of 1.10 billion cellular mobile connections were active in India in 2023. In 2023, the penetration rate of smartphone in India reached 71 percent and was estimated to reach 96 percent in 2040.

According to Gartner, the concept of digital business often involves "co-opetition" a blend of cooperation and competition — where companies engage with

their rivals, aligning interests to some extent while still competing in the same space. This collaborative approach helps businesses expand their global footprint. As digital commerce continues to evolve in India, industry experts anticipate a wave of high-profile mergers and acquisitions soon.

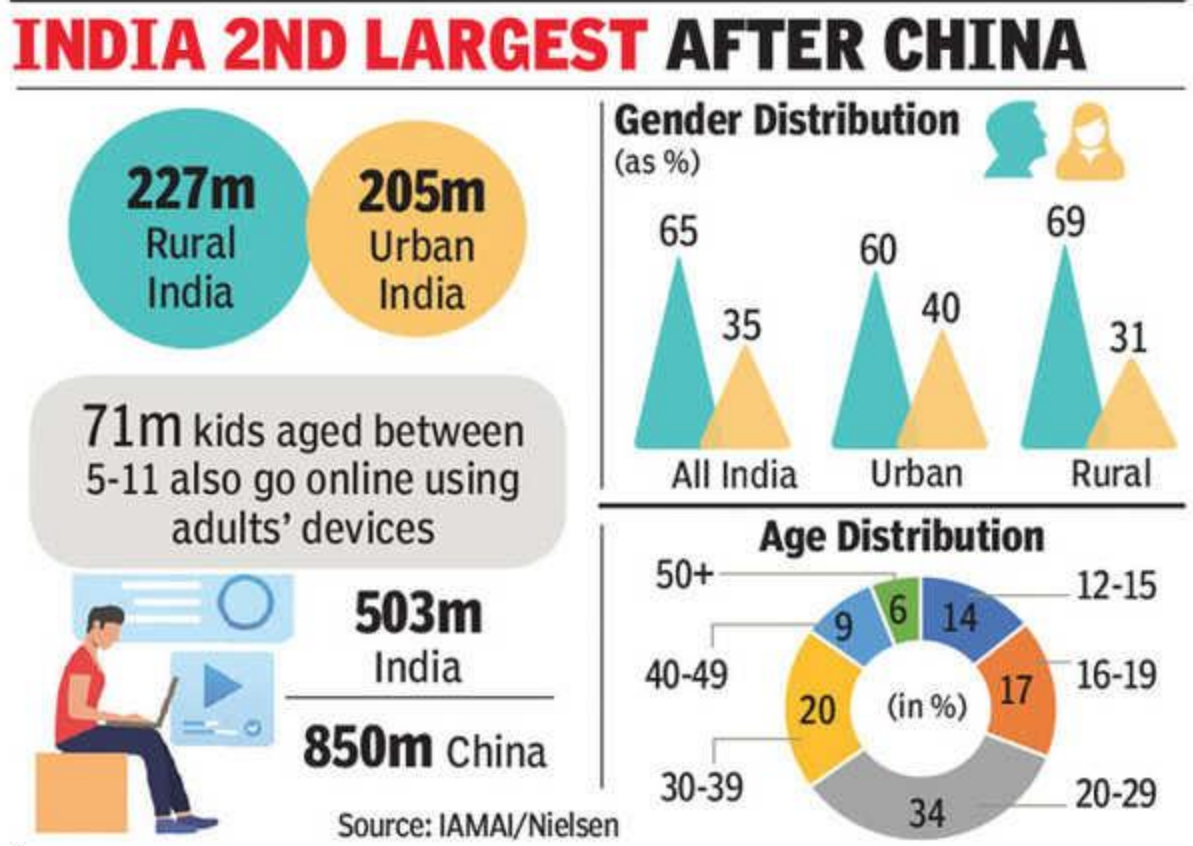


Figure 1.2 Users of Rural and Urban India

Source: IMAI/Nielsen & <https://timesofindia.indiatimes.com/business/india-business/for-the-first-time-india-has-more-rural-net-users-than-urban/articleshow/75566025.cms>

The future of e-commerce in India appears promising, with increasing interest from companies looking to invest in small business start-ups. Last year saw a significant surge in e-commerce investments across the country, and this upward trend is expected to continue. Social media platforms have evolved into powerful marketing tools, enabling businesses to promote and advertise their products at minimal cost. As mobile networks and social media continue to expand, they are set to drive the growth of e-

commerce even further, pushing online retail in India to new heights.

Rural trade markets in India have been developing fast at 3-4% per year with annually addition of around more than 1.1 million new consumers. People are growing from the financially poor class to the middle class. A study by McKinsey Global Institute (MGI) concluded that India will become the world's 5th largest consumer economy by 2025 if it continues with its current growth pace. The fast increment in the economic growth; and additionally, increasing employment, per capita and business opportunities have resulted in more expansible income with Indian consumers. Including an expanding scope of economic activities for example,

travelling, retail, food, beverages, medical services, Legal advisory and tourism. And of course, web-based business has risen as India's upcoming industry.

One of the reasons for the growth of e-commerce business can be the softening economic conditions along with the expansion of middle class and rising smart phone ownership with internet access. As the survey exposed, India stands out as the huge E-commerce opportunity in banking and travel services due to gaining popularity. The income of an average Indian customer has increased by double digit figures, thus the trend of buying premium and high-cost products is increasing fast and there has been a decline in the sales of cheap selling items. Indian people have become selective in branded products. India has got a significant and notable place in international business sector with promising market potential, reasonable political risk and little economic risk. As per a study by Boston Consulting Group, India is likely to develop into the third-largest consumer economy of the world and will achieve US\$ 450 billion in retail market by 2025. The nation has been placed the first in the world Retail Development Index 2017 due to an increase in spending by the middle class (*CII BCG, 2018*).

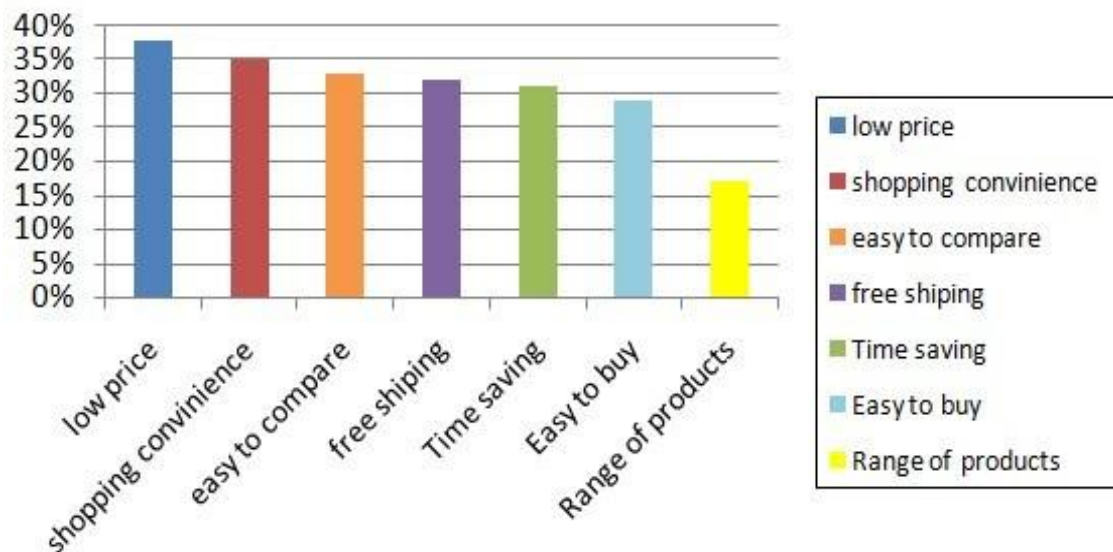


Figure 1.3 Reasons for preference E-commerce in India

Source: Deloitte-online retail in India.

The low price is the topmost reason that's why people cite for shopping online in India, shopping convenience comes very close second nearer 35% of the total respondents. The second reason for preference for E-commerce is shopping convenience because today's era people have not much time to shop at any time. It is affected highly by online business. The best factor is easy comparison of products to worldwide products in just a second. Saving in shipping cost, time saving, easy method of buying and large variety of products are also notable for popularity of E-commerce in consumer than traditional sale.

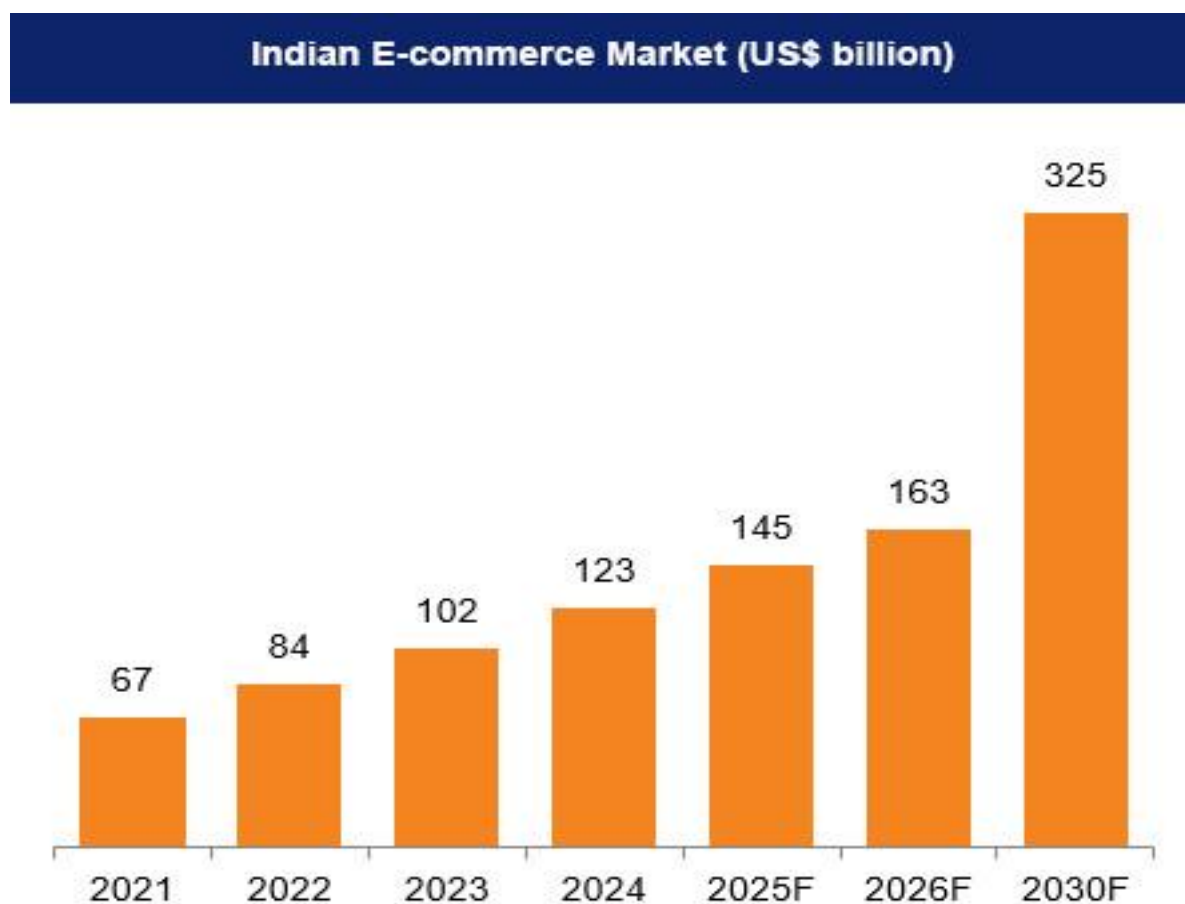


Figure 1.4 E-commerce Market place Forecasting for 2030 for India

Source: <https://www.ibef.org/industry/ecommerce> (E-Commerce Industry Report Nov 24)

The Indian online business and services marketplace is estimated to grow from US\$ 123 billion in FY24 to US\$ 292.3 billion in FY28, reflecting a compound annual expansion rate (CAGR) of 18.7%.

According to a Deloitte India Report, as India is moving towards becoming the third-largest consumer market, the country's online retail market size is projected to achieve US\$ 325 billion by 2030.

According to Grant Thornton, e-commerce in India is imagined to be worth US\$ 188 billion by 2025. Propelled by rising smartphone penetration, the launch of the 4G network and increasing consumer wealth, the Indian E-business market is projected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion in 2017.

After China and the US, India had the third-largest online shopper base of 150

million in FY21 and is presumed to be 350 million by FY26.

The e-retail market in India is projected to surpass US\$ 160 billion by 2028. In 2023, the market is estimated to be valued between US\$ 57-60 billion, marking a significant increase from previous years. This growth equates to an annual addition of US\$ 8-12 billion since 2020.

In FY23, the Gross Merchandise Value (GMV) of e-commerce reached US\$ 60 billion, increasing 22% over the previous year. In FY22, the GMV of e-commerce stood at US\$ 49 billion. India's Business-to-Business (B2B) online marketplace would be a US\$ 200 billion opportunity by 2030.

With more than 821 million users, India ranked as the world's second-largest internet market in 2023, recording an impressive 117.6 billion UPI transactions that year.

According to a Deloitte India Report, as India is moving towards becoming the third-largest consumer market, the country's online retail market size is expected to reach US\$ 325 billion by 2030, up from US\$ 70 billion in 2022, largely due to the rapid expansion of e-commerce in mid-sized cities and smaller towns. The e-commerce market's share of Tier-3 cities grew from 34.2% in 2021 to 41.5% in 2022, shows data.

The B2C E-commerce is estimated to expand steadily over the forecast period, recording a CAGR of 8.68% during 2023-27. According to a recent report by RedSeer, India's e-B2B market is predicted to achieve a GMV of US\$ 100 billion by 2030.

The evolution of retail e-commerce sales volume in India showing continuously increasing reflecting people moving to e-commerce fast because of easy accessibility of internet and use of mobile and computer/laptop. Not only availability of internet but cheaper cost of data is also helpful to growth of e-commerce in India as well as Gujarat and all the part of state. The continuous growth of volume of e-business shows comparatively more benefits than traditional business methods.

1.24 Research objectives and hypotheses

This research aims to explore the patterns of e-commerce usage among women, focusing on various factors that influence their engagement with online platforms. The study investigates both behavioral and perceptual dimensions to understand how women perceive, utilize, and face challenges in the digital marketplace.

The specific objectives of the study are:

1. The primary objective is to explore e-commerce usage by the women.
2. To understand the key variables that will increase the usage of e-commerce.
3. To know the attraction of women towards e-commerce usage as a Status and new trends.
4. To know the factors that influence the usage of e-commerce.
5. To identify the various problems faced by the women while using e-commerce.
6. To study the opportunities for marketing and promotion of e-commerce portals.
7. To explore different schemes for women empowerment under digital empowerment for India

Based on these objectives, the study tests the following hypotheses using statistical tools like ANOVA, t-tests, and Chi-square tests:

1. H1: There is a significant association between the frequency of online transactions and demographic variables (Women Age, Educational Qualification, Annual Income, Occupation, Duration of women's internet usage etc.)
2. H2: There is a significant association between buying preferences and demographic variables: (Age, Educational Qualification, Annual Income, Occupation, Duration of women's internet usage)
3. H3: There is a significant association between trust in online shopping and demographic variables: (Women's Age, Educational Qualification, Annual Income, Occupation, Duration of women's internet usage etc.)
4. H4: There is a significant relationship between the level of trust and six contributing e-commerce factors: Convenience, Post-Sales Services, Online Assistance, Reliability & Communication, Security & Privacy, and User-Friendliness.
5. H5: There is a significant difference between women's perceptions of six e-commerce factors based on buying preference.
6. H6: There is a significant difference in women's perceptions of six e-commerce factors across different age groups.
7. H7: There is a significant difference in women's perceptions of six e-commerce factors based on internet usage duration.
8. H8: There is a significant difference in women's perceptions of six e-commerce factors based on profession.
9. H9: There is a significant difference in women's perceptions of six e-commerce factors based on education.

factors based on educational qualification.

1.25 Structure of the study

The study has been divided and presented into the following chapters:

Chapter 1 provides a foundational overview of the subject, outlining the theoretical framework for the study. It begins with a general introduction to e-commerce, followed by an exploration of women's perceptions toward online shopping. The chapter also examines key factors contributing to the growth of e-commerce. Additionally, it offers insights into the concept of online shopping, the range of services available through digital platforms, and the current state of the e-commerce industry in India, setting the stage for the research that follows.

Chapter 2 presents a comprehensive review of existing research in the field of e-commerce, both within India and globally. It highlights key studies that have explored various aspects of industry, including consumer behavior and market trends. Special attention is given to literature focusing on women's perceptions of e-commerce. Based on these prior studies, the chapter also outlines the research questions and objectives that guide the current investigation.

Chapter 3 outlines the research methodology, focusing on the overall research design. It details the type of research conducted, the target population, and the sampling techniques used. The chapter also describes the data collection methods, and the tools employed to gather and analyze information relevant to the study.

Chapter 4 focuses on data analysis and is divided into two key sections. The first section involves factor analysis, which is used to formulate the study's hypotheses. The second section presents the interpretation and discussion of realistic findings, linking the results to the research objectives and evaluating the proposed hypotheses.

Chapter 5 Comprises Conclusions, Recommendations & Suggestions.

The final section of the thesis includes References and Bibliography, followed by the Appendices. The appendices contain a list of research papers published in referred journals and books, along with index and peer-reviewed details of the publications. Additionally, the research questionnaire used in the study has also been included for reference.

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