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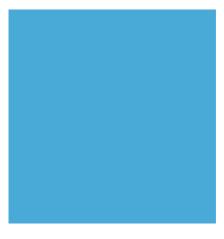
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Sustainable and Risk Managed E-Commerce Business

Key to Success and Profitability

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Chapter 1: Background

1.1 Introduction

The e-commerce sector in India has witnessed exponential growth, driven by rapid internet penetration, digital payments adoption, and evolving consumer preferences. With platforms like Amazon, Flipkart, and niche direct-to-consumer (D2C) brands reshaping retail, the industry is expected to surpass \$350 billion by 2030. However, this growth also brings regulatory complexities, financial risks, and operational challenges, making robust internal audit practices essential for ensuring compliance, fraud prevention, and process efficiency.

Internal audits in the e-commerce industry play a crucial role in evaluating data security, financial controls, inventory management, third-party vendor risks, taxation (GST), and adherence to regulatory frameworks such as the



Information Technology Act, Digital Personal Data Protection Act, Consumer Protection (Ecommerce) Rules, and FEMA regulations. With the dynamic nature of e-commerce, audits must also assess technology infrastructure, cybersecurity vulnerabilities, and supply chain disruptions to safeguard business continuity and customer trust.

This White paper explores the key audit areas, emerging risks, compliance challenges, and best practices for conducting an effective internal audit in India's evolving e-commerce landscape.

1.2 Definition and Evolution of E-Commerce in India

1.2.1 Definition

Reserve Bank of India defines E-commerce as "the buying and selling of goods and services, including digital products, conducted through electronic networks such as the internet and mobile platforms."



E-commerce includes various business models such as **B2B** (Business to Business), **B2C** (Business to Consumer), **C2C** (Consumer to Consumer) and **D2C** (Direct to Consumer). E-commerce also includes in its scope the digital payments made to avail such goods and services.

1.2.2 Evolution of E-commerce

Online shopping platforms globally in the 1990s: E-commerce has evolved since
the introduction of Electronic Data Interchange and Electronic Fund Transfer in the
1960s. The Dot Com Boom of the 1990s introduced the World Wide Web which
allowed companies like Amazon and E-bay to set up online shopping platforms.
Secure digital payment systems increased the use of digital marketplaces like
Amazon.





Low-cost internet and smart phone penetration gave rise to growth of e-commerce: The late 2000s and early 2010s saw an unprecedented growth of online shopping and m-commerce due to the introduction of high-speed internet and increased penetration of mobile phones in India. Introduction of low-cost high-speed internet to the remotest parts of India has ensured that many consumers have access to products and services they would not otherwise receive in traditional markets.



• Covid-19 accelerated the digital and e-commerce growth: The COVID-19 pandemic of 2020-21 acted as a major catalyst to push businesses to use the virtual marketplace. The 2020s also saw a growth of hyperlocal commerce (10-minute deliveries) due to the increasing demand for quick deliveries of groceries and essentials.



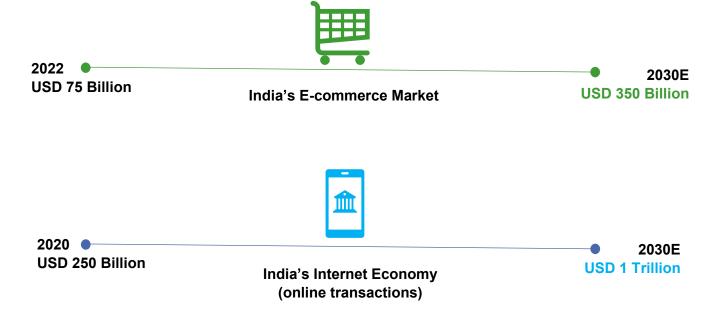
With India's e-commerce market projected to reach \$350 billion by 2030, advancements in metaverse shopping, AR/VR experiences, and automated supply chains are expected to drive the next phase of digital commerce.

1.3 Expansion of E-Commerce in India and Globally

1.3.1 Market Size & Projections:

Factor	India	Global
Market Size (2024)	\$125 billion	\$6.33 trillion
Projected Market Size (2030)	\$350 billion	\$7.9 trillion
CAGR (2023–2030)	~19.6%	~8–10%

Source: IBEF presentation







India's digital payments market

1.4 Growth of E-Commerce: Technological Advancement, Digital Transformation & COVID-19 Impact

India's e-commerce landscape has experienced remarkable growth, driven by increasing internet penetration, smartphone adoption, and a shift in consumer behavior towards online shopping. The market was valued at approximately \$16.4 billion in 2014 which has grown almost 8x to \$125 billion in 2024 (Source: IBEF) and is projected to reach \$345 billion (Source: IBEF), expanding at a compound annual growth rate (CAGR) of 18.4% from 2025 to 2030.

1.4.1 Key Growth Drivers:

• Rising Internet & Smartphone Penetration

- o India has over 900 million internet users (2023)
- o 5G rollout is enhancing digital experiences, increasing online shopping adoption

• Growth of Digital Payments

- o UPI transactions surpassed ₹16 lakh crore (~\$192 billion) per month in 2024
- o Faster, seamless payments have boosted online commerce

• Shift in Consumer Behavior

- Tier 2 & 3 cities now contribute ~50% of e-commerce sales
- Millennials & Gen Z drive demand for quick commerce, subscription models, and social commerce
- Government Initiatives
 - ONDC (Open Network for Digital Commerce) aims to democratize e-commerce
 - Digital India and Startup India are fostering growth in logistics & online retail

Innovative Business Models

- Direct-to-Consumer (D2C) brands like boAt, Mamaearth, and Lenskart are disrupting traditional retail
- Quick Commerce (Blinkit, Zepto) is revolutionizing grocery & essential shopping



1.5 Key business Models in E-commerce

Companies are focusing on the problems, customers' needs and then working backwards on the product or services that can be offered to the customer. This has given rise to multiple models in e-commerce.

The key E-commerce Business Models are:

1.5.1 Business-to-Consumer (B2C)

The business sells directly to the consumer through online platforms.

Examples - Amazon, Flipkart, Myntra, Nykaa.

1.5.2 Business-to-Business (B2B)

A business sells products or services to other businesses, wholesalers, or retailers.

Examples – IndiaMART, IndustryBuying, Alibaba, Amazon Business

1.5.3 Consumer-to-Consumer (C2C)

Consumers sell directly to other consumers via online platforms.

Examples - OLX, eBay, Quikr, Facebook Marketplace

1.5.4 Direct-to-consumer (D2C)

Businesses that manufacture as well as sell to the consumer directly without intermediaries Examples – MamaEarth, boAt, Sugar Cosmetics, Lenskart

1.5.5 Consumer-to-Business (C2B)

Individuals offer products or services to businesses

Examples – Freelancing platforms like Upwork, Fiverr, influencer marketing platforms

1.5.6 Subscription-Based E-Commerce

Customers subscribe to receive recurring products or services

Examples: Netflix, Amazon Prime, Blinkit (Instant Grocery Subscription), Zomato Gold

1.5.7 Marketplace Model

A platform connects buyers and sellers, facilitating transactions but not holding inventory.

Examples: Amazon, Flipkart, Meesho, Snapdeal

1.5.8 On-Demand & Hyperlocal Commerce

Goods and services delivered in a short time frame, often within hours

Examples: Zomato, Swiggy, Blinkit, Dunzo

1.6 The Digital Marketplace: Trends and Innovations

The increasing advancement in areas of Al (Artificial Intelligence) and AR (Augmented Reality) has shifted the consumer perspective from a traditional commerce to online commerce – especially with the increase in targeted advertisements and curated feeds on social media websites. Marketplaces are also integrating social commerce, where platforms like Instagram, Facebook, and Meesho enable





shopping directly within social media apps. The adoption of subscription models, BNPL (Buy Now, Pay Later) financing, and hyperlocal commerce further enhances customer convenience.

1.6.1 Key Trends and Innovations:

• Quick Commerce Surge:

The demand for rapid delivery services has led to the rise of quick commerce platforms. Companies like Swiggy have significantly invested in this sector, expanding their warehouse infrastructure to facilitate deliveries within 10 to 30 minutes.

Rural Market Penetration:

E-commerce growth is no longer confined to urban centers. With improved internet connectivity and digital literacy, rural areas are increasingly contributing to online sales. This expansion into non-metro regions is opening new avenues for e-commerce platforms to tap into previously underserved markets.

Adoption of Sustainable Practices:

Consumers are becoming more environmentally conscious, prompting e-commerce companies to adopt sustainable practices. Initiatives such as eco-friendly packaging, carbon-neutral deliveries, and the promotion of sustainable products are gaining traction, aligning with global trends towards sustainability.

• Integration of Advanced Technologies:

The use of technologies like Artificial Intelligence (AI) and Augmented Reality (AR) is enhancing the online shopping experience. Al-driven personalization offers tailored product recommendations, while AR allows customers to virtually try products before purchasing, thereby increasing engagement and reducing return rates.

Government Initiatives:

The Indian government's launch of the Open Network for Digital Commerce (ONDC) aims to democratize digital commerce by providing equal opportunities to all marketplace participants. This initiative is expected to foster a more inclusive e-commerce ecosystem, benefiting small and medium-sized enterprises.

1.7 The Acceleration of E-Commerce Post-Pandemic

1.7.1 Pre-pandemic status:

Global:

From 2010 to 2019, e-commerce experienced a steady growth from less than 5% of total retail sales in 2010 to 18% in 2018.

India

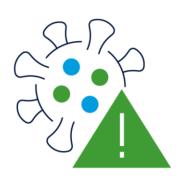
Before 2020, India's e-commerce sector was expanding, driven by increasing internet penetration and smartphone usage. In 2019, India ranked second in the Global Retail Development Index (GRDI), reflecting its potential in the retail sector.



1.7.2 Covid-19 Impact

The pandemic and lockdown brought about unprecedented growth in the e-commerce sector both in India as well as globally as brick-and-mortar shops were forced to shut down. The consumers shifted their focus to online stores which grew India's online retail sector by nearly 40% in 2020 with essential goods, healthcare and groceries were the key drivers.

Social commerce platforms (e.g. Meesho, WhatsApp, and Instagram) aided businesses to reach their customers directly. Big e-commerce platforms like Flipkart and Amazon expanded their business by improving supply chain efficiencies and customer service TATs.



Post lifting of restrictions, the consumers have remained largely digital first, preferring the convenience of quick home deliveries over visiting physical stores. The evolution of quick commerce (e.g. Blinkit, BigBasket, Amazon Fresh) capitalized on the instant gratification of consumers by offering 10–30 minute deliveries.

1.8 Digital Payment Ecosystem & UPI Revolution

One of the biggest enablers of e-commerce growth in India has been the rise of digital payments, particularly the Unified Payments Interface (UPI). Before 2016, cash-on-delivery (COD) dominated online transactions in India, creating logistical challenges for e-commerce companies. However, with the demonetization of 2016 and the subsequent adoption of UPI, digital payments skyrocketed.

As of 2023, UPI transactions in India crossed 12 billion transactions per month, making it one of the world's largest real-time payment systems. The seamless integration of UPI into e-commerce platforms has led to faster checkouts, improved customer trust, and reduced dependency on COD. Payment gateways like Razorpay, Paytm, PhonePe, and Google Pay have played a crucial role in driving this transformation.

The availability of Buy Now, Pay Later (BNPL) options has further encouraged digital shopping, allowing consumers to make purchases without immediate payments. Companies like Simpl, ZestMoney, and LazyPay have made BNPL a preferred payment method for younger consumers, thereby increasing order values and customer retention in e-commerce.

1.9 The Role of Government Policies & Initiatives

Government policies have played a crucial role in shaping India's e-commerce landscape. Several initiatives, such as Digital India, Make-in-India, and Startup India, have encouraged digital entrepreneurship and increased internet penetration, leading to a more connected and tech-savvy consumer base.

One of the most transformative initiatives has been the introduction of the Open Network for Digital Commerce (ONDC). Launched in 2022, ONDC aims to democratize digital commerce by reducing platform dependency on Amazon and Flipkart and providing a more inclusive marketplace for small businesses. This initiative is expected to increase e-commerce penetration to 25% of India's retail



market by 2030. As of March 2024, ONDC has earned an income of Rs. 14.56 crores with a volume of 7 million transactions. (Source: ONDC website and annual return)

In addition to ONDC, the government of India has also set up a portal "Government e-marketplace" which is a portal for sellers and service providers to list products to be serviced to various Central and state government ministries, departments as well as PSUs.

Another key policy shift has been the Foreign Direct Investment (FDI) regulations in e-commerce. The Indian government has mandated that e-commerce platforms operate as marketplaces rather than inventory-led businesses, preventing them from controlling sellers directly. This has encouraged local businesses and kirana stores to compete on a level playing field with global giants.

The implementation of GST (Goods and Services Tax) has also streamlined e-commerce taxation, making it easier for businesses to scale across different states. Additionally, data protection and consumer protection laws are being developed to ensure fair trade practices, secure transactions, and better customer experiences.

As India's regulatory framework evolves, these policies will continue to shape the future of e-commerce, ensuring equitable growth, fair competition, and consumer security in the digital space.



Chapter 2: E-Commerce Sector – Key Players

2.1 Key Players and Competitive Landscape

2.1.1 Global Competitive Landscape

On a global scale, major e-commerce giants dominate different regions.

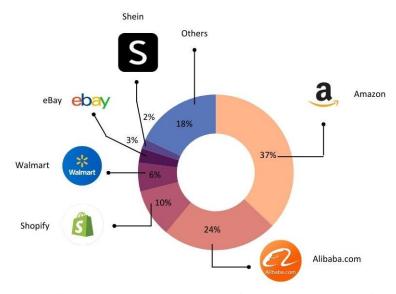


Figure 1 : Global Market Share of Major E-commerce Companies

2.1.2 Major Players in Indian E-Commerce

The Indian e-commerce market is largely dominated by a few key players, each employing unique strategies to capture market share.

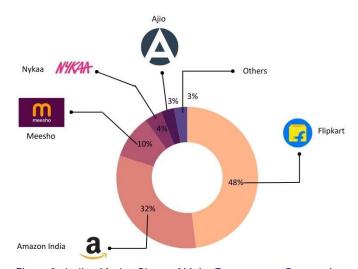


Figure 2 : Indian Market Share of Major E-commerce Companies



2.2 Sector wise revenue of a few major ecommerce companies

In the last few years, E-commerce space has evolved to include multiple sectors online. Currently the biggest sectors in e-commerce in India are:

- Virtual Marketplace
- Healthcare
- Personal grooming and beauty products
- Fashion and lifestyle
- Furniture
- Educational Technology
- Food delivery & Quick commerce
- Finance
- Media and Entertainment
- Transportation Services
- Insurance
- Travel service providers

Sector Wise Companies – Some Major Players (Values in Cr Rs for FY 23-24)

2.2.1 Virtual Marketplace

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Amazon	25,406	-3,470	Amazon Retail India Pvt Ltd	Amazon.in	Amazon Asia-Pacific Holdings Pvt Ltd
Flipkart	17,907	-2,358	Flipkart India Pvt Ltd	Flipkart.com	Walmart
Snapdeal	380	-160	Snapdeal Pvt Ltd	Snapdeal.com	AceVector Limited

Source - Moneycontrol.com

2.2.2 Healthcare

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Apollo Pharmacy	9928	-177	Apollo Pharmacies Limited	apollopharmacy .in	Apollo Medicals Pvt Ltd (AMPL)
Netmeds	6724	797	Netmeds Healthcare Ltd	Netmeds.com	Reliance Retail Limited
PharmEasy	5,759	-2,534	Axelia Solutions Private Limited	Pharmeasy.in	API Holdings
Medplus	5665	66	MedPlus Health Services Limited	medplusindia.c om	Founder's (Gangadi Madhukar Reddy) share - 40.34%
Tata 1mg	1,991	-313	TATA 1MG Technologies Private Limited	1mg.com	Tata Digital



Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
HealthKart	1,069	37	Bright Lifecare Pvt. Ltd.	HealthKart.com	Bright Lifecare Pvt. Ltd

Source - traxcn.com

2.2.3 Personal Grooming and beauty products

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Nykaa Beauty	6,416	44	Nykaa E-Retail Limited	Nykaa.com	FSN E-Commerce Ventures Ltd
Mamaearth	1,970	111	Honasa Consumer Ltd	Mamaearth.in	Part of Honasa group
Purplle	680	-124	Manash Lifestyle Private Ltd	Purplle.com	Manash E-Commerce Private Limited
Sugar Cosmetics	515	68	Vellvette Lifestyle Private Limited	sugarcosmetics.	Vineeta Singh (CEO) and Kaushik Mukherjee (COO)
Minimalist	347	11	Uprising Science Pvt Ltd	Beminimalist.co	Hindustan Unilever (HUL)
Plum Goodness	342	-84	Pureplay Skin Sciences (India) Pvt Ltd	Plumgoodness.c om	Pureplay Skin Sciences (India) Private Limited

Source – traxcn.com

2.2.4 Fashion and lifestyle

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Ajio	Not available	Not available	Reliance Retail Ltd	Ajio.com	Reliance Retail
Myntra	5,174	31	Myntra Designs Pvt Ltd	Myntra.com	Flipkart
Meesho	7,615	-53	Fashnear Technologies Pvt Ltd	Meesho.com	Vidit Aatrey

Source - traxcn.com

2.2.5 Furniture

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Nilkamal	3150	107	Nilkamal Ltd	nilkamalfurniture .com	Public
Ikea India	1,853	-1,299	Ikea India Pvt Ltd	ikea.com/in	Ingka Holdings



Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Pepperfry	209	-118	Pepperfry Ltd	Pepperfry.com	Trendsutra Platform Services Pvt Ltd
Urban Ladder	155	14	Urban Ladder Home Decor Solutions Limited	Urbanladder.co m	Reliance Retail Ltd

Source - traxcn.com

2.2.6 Edtech

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Physics Wallah	2,015	-1,131	Physicswallah Limited	Pw.live	Alakh Pandey Prateek Maheshwari
Upgrad	1547	-560	UpGrad Education Pvt Ltd	upgrad.com.	Ronnie Screwvala (45%)
Unacademy	989	-631	Sorting Hat Technologies Private Limited.	Unacademy.com	Funds
Simplilearn	773	-107	Simplilearn Solutions Private Limited	Simplilearn.com	Blackstone
Great Learning	456	-58	Great Learning Education Services Pvt Ltd	Mygreatlearning, com	Byju's

Source - traxcn.com

2.2.7 Food Delivery and Quick Commerce

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Zomato	12,961	351	Eternal Ltd	Zomato.com	FPI, Info Edge India Ltd
Swiggy	11,634	-2,350	Swiggy Ltd	Swiggy.com	Funds
Bigbasket	10,100	-1,415	Supermarket Grocery Supplies Private Limited	Bigbasket.com	Tata Digital Ltd
Zepto	4,499	-1,249	Kiranakart Technologies Private Limited	Zeptonow.com	Institutional Investors

Source - traxcn.com



2.2.8 Finance

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
PayTm	10,525	-1,422	One 97 Communicatio ns Limited	Paytm.com	Funds
PhonePe	5,064	-1,996	PhonePe Private Limited	Phonepe.com	Walmart
GPay	Not available	Not available	Google LLC	Pay.google.com	Alphabet Inc
Razor Pay	2501	34	Razorpay Software Pvt Ltd	razorpay.com.	Harshil Mathur and Shashank Kumar
Bharatpe	1,486	-492	Resilient Innovations Private Limited	bharatpe.com	Funds

Source - entrackr.com, paytm.com

2.2.9 Media and Entertainment

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Netflix	2,845	52	Netflix Inc	Netflix.com	Public (Vanguard – Main)
BookMyShow	1,397	109	Bookmyshow Live Private Limited	in.bookmyshow.c om	BigTree Entertainment Pvt Ltd
Jio Hotstar	Not available.	Not available.	Viacom18 Media Pvt Ltd	Hotstar.com	JV between Reliance Industries (63.16%) and Walt Disney (36.84%)

Source - moneycontrol.com, paytm.com, entrackr.com

2.2.10 Transport services

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Uber India	3,762	-89	UBER INDIA SYSTEMS PRIVATE LIMITED	Uber.com	Uber Technologies, Inc
Ola	2,012	-10	ANI Technologies Pvt Ltd	Ola.com	Funds
Rapido	648	-371	Roppen Transportation Services Private Limited	Rapido.bike	Funds

Source - moneycontrol.com, entrackr.com



2.2.11 Insurance services (insurance aggregators – regulated by IRDAI (Insurance Web Aggregators) Regulations, 2017)

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
PolicyBazaar	3818	64	Policybazaar Insurance Web Aggregator Private Limited	Policybazaar.com	PB Fintech Ltd
Acko	1391	-457	Acko General Insurance Ltd.	Acko.com	ACKO Technology and Services Private Limited
Insurance Dekho	785	86	Girnar Insurance Brokers Private Limited	www.insurancedek ho.com.	Girnar Insurance Brokers Private Limited (GIBPL)
Turtlemint	507	6	Turtlemint Insurance Broking Services Private Limited	turtlemint.com.	Funds (76.78%)
Digit Insurance	484	182	Go Digit General Insurance Limited	godigit.com	Go Digit Infoworks Services Private Limited (JV between Kamesh Goyal, Oben Ventures LLP, and FAL Corporation)

Source – Acko annual report 2023-24

2.2.12 Travel Service Providers

Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Makemytrip	6762	1087	Makemytrip (India) Pvt Ltd	makemytrip.com	Ctrip Group
IRCTC	4435	1111	Indian Railway Catering & Tourism Corporation Ltd	Irctc.co.in	GOI
Ixigo	665	73	Le Travenues Technology, Pvt. Ltd.	lxigo.com	Le Travenues Technology



Company	Annual Revenue	Annual Net Profit	Legal Name	Website Domain Name	Current Ownership
Easemytrip	609	103	Easy Trip Planners Limited	Easemytrip.com	Public



Chapter 3: Supply Chain & Logistics in E-Commerce

Efficient supply chain management is the backbone of e-commerce, ensuring timely delivery, cost efficiency, and customer satisfaction. The rapid growth of online retail has led to significant advancements in warehousing, fulfillment, distribution, last-mile delivery, and sustainability efforts.

3.1 Warehousing, Fulfillment & Distribution

Warehousing, order fulfillment, and distribution play a critical role in ensuring a seamless online shopping



experience. E-commerce businesses rely on advanced inventory management systems, fulfillment centers, and third-party logistics (3PL) providers to streamline operations.

E-commerce relies on quick turnaround times with respect to ecommerce and delivery channels. Most ecommerce platforms rely heavily on 3rd party warehousing and delivery services which requires the emergence of automated low cost supply chain facilitators.

3.1.1 Key Components of E-Commerce Warehousing & Fulfillment:

- **Smart Warehousing:** Automated warehouses with AI and robotics enhance picking, packing, and inventory accuracy.
- Multi-Node Fulfillment Centers: E-commerce giants like Amazon, Flipkart, and Reliance JioMart operate multiple fulfillment centers to reduce delivery times.
- On-Demand Warehousing: Companies like Shadowfax and Delhivery provide flexible warehousing solutions based on seasonal demand.
- **Cross-Border Fulfillment:** Global e-commerce brands leverage international fulfillment centers for efficient cross-border shipping.

Challenges: High storage costs, real-time inventory management, and integration of supply chain technologies.

3.2 Last-Mile Delivery Challenges & Innovations

Last-mile delivery, the final step of the logistics chain, is often the most costly and complex part of the supply chain. With rising consumer expectations for same-day or next-day delivery, companies are investing in innovative last-mile solutions.

3.2.1 Challenges in Last-Mile Delivery:

- Traffic Congestion & Delays: Urban areas face significant delays due to traffic density
- Cost of Delivery: Last-mile delivery accounts for 53% of total shipping costs
- Failed Deliveries & Reverse Logistics: High return rates in e-commerce lead to increased logistics costs



3.2.2 Innovations in Last-Mile Delivery:

- **Hyperlocal Delivery Networks:** Platforms like Dunzo, Swiggy Genie, and Zepto use local stores for faster deliveries.
- Drones & Autonomous Vehicles: Companies like Zomato, Amazon, and Flipkart are testing drone deliveries for remote areas.
- **Crowdsourced Delivery Models:** Startups like Shadowfax and Rapido enable gig workers to deliver packages efficiently.

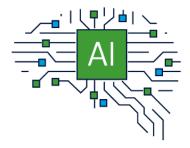
Impact: Reduced delivery costs, increased efficiency, and improved customer experience.

3.3 Role of Technology in Supply Chain Optimization

Technology is revolutionizing **supply chain visibility**, **automation**, **and predictive analytics**, allowing businesses to manage inventory and logistics in real time.

3.3.1 Key Technologies Transforming E-Commerce Logistics:

- Al & Machine Learning: Predicts demand, optimizes routes, and enhances warehouse efficiency
- **IoT & Smart Sensors:** Tracks shipments, monitors temperature-sensitive goods, and prevents theft
- Blockchain Technology: Enhances supply chain transparency, reducing fraud and counterfeit goods
- Robotics & Automation: Warehouses deploy robotic picking systems like Amazon's Kiva robots for faster fulfillment



Benefits: Lower operational costs reduced human error, and enhanced customer satisfaction

3.4 Sustainability & Green Logistics in E-Commerce

As environmental concerns grow, e-commerce companies are adopting **sustainable supply chain practices** to reduce their carbon footprint.

3.4.1 Sustainability Initiatives in E-Commerce Logistics:

- Electric Vehicles & Alternative Fuels: Companies like Amazon and Flipkart are investing in EV fleets to lower emissions
- Eco-Friendly Packaging: Brands use biodegradable and recycled materials to minimize waste
- Carbon-Neutral Shipping: Companies like DHL and FedEx offer carbon offset programs
- Warehouse Energy Efficiency: Smart warehouses integrate solar energy and energyefficient lighting

Challenges: High initial investment, supply chain complexity, and balance cost efficiency with sustainability



Chapter 4: Statutory Compliances for Ecommerce Businesses

4.1 Income Tax

The advent of e-commerce business models has necessitated significant changes and updates in the Income Tax Act of India, particularly in relation to the taxation of non-resident entities. Traditionally, tax liability in India was contingent on the physical presence of a company within the country. However, with the rise of e-commerce, defining income sourced from India has become complex. To address this, additional provisions for Tax Deducted at Source (TDS) and Tax Collected at Source (TCS) have been introduced to ensure tax compliance on e-commerce



transactions. This section provides an overview of the income tax and TDS regulations implemented to tax e-commerce operators.

4.1.1 Income Tax Provisions for Non-Resident Entities

Under the Indian Income Tax Act, the taxation of a company is determined by its residential status. A company that qualifies as a resident in India is subject to tax on its global income, whereas a foreign company is taxed only on income sourced from India. Historically, determining Indian-sourced income was relatively straightforward when foreign companies had a physical presence in India. However, ecommerce operators can generate income from Indian consumers without maintaining a physical establishment in the country. To address this challenge, the concept of Significant Economic Presence (SEP) was introduced.

• Significant Economic Presence (SEP)

In line with Base Erosion and Profit Shifting (BEPS) norms, SEP establishes a taxable presence for non-resident entities that have sustained and purposeful interactions with the Indian economy through digital means.

On May 3, 2021, the Indian tax administration issued a notification specifying the revenue and user thresholds for applying SEP rules. These conditions include:

- o Aggregate payments exceeding INR 20 million (US\$239,839) in a financial year.
- o Systematic and continuous engagement with 300,000 or more Indian users.

SEP provisions apply irrespective of the location of agreements, the non-resident's physical presence, or service rendering within India. Income attributable to SEP includes:

- o Advertisements targeting Indian customers or accessed via an Indian IP address.
- Sale of data collected from individuals in India or through an Indian IP address.
- Sale of goods or services utilizing data from Indian users or accessed via an Indian IP address.



These provisions became effective from April 1, 2021, aligning with the SEP implementation timeline. However, the above provisions are subject to provisions applicable under the respective Tax Treaty.

4.1.2 Section 1940 – TDS on Payments Made to E-Commerce Participants

Overview

Section 194O was introduced in the Union Budget 2020 to ensure tax compliance among e-commerce participants. Under this provision, an e-commerce operator is required to deduct Tax Deducted at Source (TDS) while facilitating the sale of goods or services through an e-commerce platform. The provision came into effect on October 1, 2020.

Before the introduction of Section 1940, there was no TDS requirement on payments made to e-commerce participants. These participants were responsible for independently filing their income tax returns. However, many small e-commerce participants failed to do so, leading to tax evasion. To address this issue, Section 1940 was enacted. This provision ensures better tax compliance among e-commerce participants while preventing potential revenue loss due to non-reporting of income.

Applicability

Section 1940 applies to:

- Both resident and non-resident e-commerce operators
- Resident e-commerce participants, even if the purchaser of goods or recipient of services is a non-resident

Key provisions include:

- E-commerce operators must deduct TDS at a rate of 1% (0.1% w.e.f 1st October 2024) at the time of crediting or making payment to the e-commerce participant, whichever occurs earlier.
- If the e-commerce participant is a corporate entity, TDS under Section 1940 applies regardless of threshold limits.
- For Individuals and Hindu Undivided Families (HUFs), TDS is not required if the gross sales of goods or services during the financial year do not exceed INR 5 lakh, provided the participant furnishes their PAN or Aadhaar.



- The obligation to deduct TDS or collect TCS applies to payments or credits made on or after October 1, 2020.
- If the participant does not furnish PAN or Aadhaar, TDS must be deducted at a higher rate of 5%, as per the provisions of Section 206AA.



 If TDS has been deducted u/s 194-O on a transaction, then the same transaction is not liable for TDS under any other sections of the Act.

Guideline u/s 194-O

CBDT has provided clarifications/ guidelines through various circulars, with regard to applicability of TDS u/s 194-O on certain transactions such as transactions in securities and commodities traded through recognized stock exchanges or recognized clearing corporations, transactions in electricity, renewable energy certificates and energy saving certificates traded through registered power exchanges, payments carried through payment gateways etc.

4.2 Goods and Services Tax (GST)

As per Section 9(5) of CGST/SGST Act, 2017, the Government is empowered to notify categories of services wherein the person responsible for payment of taxes would neither be the supplier nor the recipient of supply, but the **electronic commerce operator** ('ECO') through which the supply is affected. It is important to note that, in case of such supplies, the ECO is neither the supplier nor does it receive the services. The ECO is merely the person who owns, operates or manages digital or electronic facility or platform for e-commerce purposes. Under the erstwhile service tax law, the ECO in such an arrangement was referred to as an 'aggregator'.

The Government has notified following services where the responsibility of collecting and remitting taxes would be on ECO in this regard *vide* **Notification No. 17/2017-Central Tax (Rate), dated 28.06.2017** as amended from time to time:

- 1. services by way of transportation of passengers by a radio-taxi, motorcab, maxicab, motorcycle, 49 [omnibus or any other motor vehicle except omnibus];
- 2. services by way of transportation of passengers by an omnibus except where the person supplying such service through ECO is a company.
- 3. services by way of providing accommodation in hotels, inns, guest houses, clubs, campsites or other commercial places meant for residential or lodging purposes, except where the person supplying such service through ECO is liable for registration under sub-section (1) of section 22 of the said Central Goods and Services Tax Act;
- 4. services by way of housekeeping, such as plumbing, carpentering etc., except where the person supplying such service through ECO is liable for registration under sub-section (1) of section 22 of the said Central Goods and Services Tax Act.
- 5. supply of restaurant service other than the services supplied by restaurant, eating joints etc. located at specified premises.

Under Section 24 of the CGST/SGT Act 2017, **ECO is** required to register under GST, regardless of the turnover limits specified in Section 22(1) (INR 10 lakh/20 lakh).

If an ECO lacks physical presence in India, a representative will be liable for tax payments. If no representative exists, the ECO must appoint a person for this purpose.

As per Section 52 of CGST/SGST Act, 2017, every **ECO**, not being an agent, shall collect TCS at a rate not exceeding .5% (CGST +SGST/IGST) of the 'net value of taxable supplies' in which he collects



consideration of the supply. Where "net value of taxable supplies" shall mean the aggregate value of taxable supplies of goods or services or both, other than services notified under sub-section (5) of section 9, made during any month by all registered persons through the operator reduced by the aggregate value of taxable supplies returned to the suppliers during the said month.

Please note that if there is return of supplies to Suppliers, then the same shall be reduced from the gross value. TCS shall be worked on such net figure only (after such reduction).

4.2.1 Penalty:

In case, the ECO -

- fails to collect to tax under section 52(1), or
- collects an amount which is less than the amount required to be collected under section 52(1), or
- where he fails to pay to the government the amount collected as tax under section 52(3)

then pursuant to section 122(1)(vi) of the CGST Act, such **ECO** shall be liable to pay a penalty of `10,000 or an amount equivalent to the tax not collected or short collected or collected but not paid to the Government whichever is higher.

Please refer to decision of Karnataka AAR in the matter of Opta Cabs (P) Ltd. as below:

Question raised: Whether the money paid by the customer to the driver of the cab for the services of the trip is liable to GST and whether the applicant company is liable to pay GST on this amount?

Ruling: The services of transportation of passengers is supplied to the consumers through the applicant and it shall be deemed that the applicant is the supplier liable to pay tax in relation to the supply of such service by the taxi operator - in accordance with the provisions of **section 9(5) read with Notification No. 17/2017-Central Tax (Rate), dated 28.06.2017**, the applicant is liable to pay tax on the amounts billed by him on behalf of the taxi operators for the service provided in the nature of transportation of passengers through it.

4.2.2 Implication of ITC on ECO

Clarification in respect of input tax credit availed by **ECO** where services specified under Section 9(5) of Central Goods and Services Tax Act, 2017 are supplied through their platform vide **Circular No. 240/34/2024-GST dated 31.12.2024**, it clarified the following issue as:

"Whether **ECO**, required to pay tax under section 9(5) of CGST Act, is liable to reverse proportionate input tax credit on his inputs and input services to the extent of supplies made under section 9(5) of the CGST Act."

It has been clarified vide question no. 6 of *Circular No. 167/23/2021 – GST dated 17.12.2021* that the ECO shall not be required to reverse input tax credit on account of restaurant services on which he pays tax under section 9(5) of the CGST Act. It has also been clarified that the input tax credit will not be allowed to be utilized for payment of tax liability under section 9(5) and whole of the tax liability under section 9(5) will be required to be paid in cash.

In view of this, it is clarified that **ECO**, who is liable to pay tax under section 9(5) of the CGST Act in respect of specified services, is not required to reverse the input tax credit on his inputs and input



services proportionately under section 17(1) or section 17(2) of CGST Act to the extent of supplies made under section 9(5) of the CGST Act.

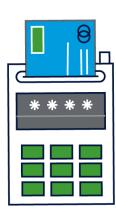
Where multiple **ECO** are involved in a single supply of goods through **ECO** platform, "the **ECO**" shall mean the electronic commerce operator who finally releases the payment to the said person for the said supply made by the said person through him.

ECO shall file Monthly Return (Statement) for Collection of Tax at Source in GSTR-8 by 10th of the next month.

Every **ECO** required to collect tax at source under section 52 shall furnish annual statement referred to in sub-section (5) of the said section in FORM GSTR -9B.

4.3 Compliance with payment processing norms

The evolution of digital commerce in India has brought with it a robust legal and regulatory framework governing payment processing by e-commerce entities. The framework aims to ensure transparency, financial security, consumer protection, and data privacy while fostering the growth of digital payments. E-commerce payment processing in India is regulated primarily by the Reserve Bank of India (RBI), along with oversight from MeitY (Ministry of Electronics and IT) and guidelines under the Consumer Protection E-Commerce Rules, 2020. The following points highlight the key regulatory and operational aspects relevant to payment processing in e-commerce businesses:



4.3.1 Authorization of Payment Aggregators and Gateways

The RBI has mandated that all entities facilitating e-commerce payment transactions, particularly Payment Aggregators (PAs), must obtain explicit authorization under the RBI Guidelines on Regulation of Payment Aggregators and Payment Gateways, 2020.

- Payment Aggregators are entities that facilitate online payment transactions between customers and merchants without the need to create a separate merchant account.
- E-commerce entities that act as PAs are required to maintain a minimum net worth (₹15 crore at the time of application and ₹25 crore within three years).
- Payment Gateways, providing technology infrastructure for payment processing, must ensure compliance with data security standards but are not required to obtain separate licensing.

4.3.2 Maintenance of Escrow Accounts

E-commerce entities acting as payment intermediaries are required to maintain escrow accounts for customer payments.

- Funds collected from customers must be kept in a nodal escrow account and settled to the
 merchants within a prescribed time frame (typically T+1 or T+2 days) to ensure there is no misuse
 or co-mingling of funds.
- The escrow mechanism ensures customer funds are protected until the transaction is fulfilled.



4.3.3 Adherence to KYC and Anti-Money Laundering (AML) Norms

For e-commerce platforms offering Prepaid Payment Instruments (PPIs), such as wallets, strict KYC (Know Your Customer) norms and anti-money laundering procedures are applicable as per RBI Master Directions on PPIs.

- Wallet users must undergo KYC verification.
- Transaction limits and fund load limits are prescribed to minimize fraud and misuse.

4.3.4 Data Protection and Privacy Compliance

E-commerce platforms processing payments must comply with:

- IT (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011: Sensitive data like payment credentials, card numbers, and UPI IDs must be encrypted and stored securely.
- Digital Personal Data Protection Act, 2023 (DPDP Act):
 Mandates clear consent, purpose limitation, data minimization, and secure processing of customer payment data. Data Principals (users) have the right to access, rectify, or delete their payment-related personal data.



4.3.5 Disclosure and Grievance Redressal Obligations

Under the Consumer Protection (E-Commerce) Rules, 2020, e-commerce platforms must:

- Disclose payment methods, fees, refund timelines, and payment settlement terms transparently on their platform.
- Maintain a grievance redressal mechanism to address payment-related disputes, failed transactions, and refund delays.
- Display the total price of products/services, including all applicable charges, taxes, and payment processing fees.

4.3.6 Cross-Border Payment Regulations

If e-commerce entities facilitate cross-border transactions, they are governed by the Foreign Exchange Management Act (FEMA) and RBI's Master Directions on Export and Import of Goods and Services.

- Payments for imports/exports through e-commerce platforms must comply with FEMA provisions.
- E-commerce marketplaces must ensure that foreign remittance transactions follow RBIprescribed routes and documentation.

4.3.7 Settlement and Refund Timelines

The RBI mandates clear timelines for settlement of funds and processing of refunds in case of order cancellations, failed transactions, or returns.

Refunds must be processed within a reasonable period, usually 7-10 business days.



 Delay or non-compliance with refund timelines is treated as an unfair trade practice under the Consumer Protection Act.

4.3.8 Restrictions under FDI Policy

The Indian government's FDI Policy on e-commerce restricts certain payment practices:

- **Marketplace Model:** 100% FDI is permitted, but platforms cannot directly or indirectly influence pricing through payment discounts, cashbacks, or preferential payment processing.
- **Inventory Model:** FDI is prohibited, and such entities cannot process payments as PAs for their own inventory.

4.4 Digital personal Data protection act (DPDP Act), 2023

The **Digital Personal Data Protection Act**, **2023** ("DPDP Act") marks a significant milestone in India's data privacy and protection framework. It introduces a comprehensive legal structure governing the collection, storage, processing, and transfer of personal data in the digital ecosystem. For **e-commerce companies**, which handle large volumes of sensitive personal and financial information, compliance with the DPDP Act is both critical and consequential.

4.4.1 Applicability to E-Commerce Companies

The DPDP Act applies to all entities that process **digital personal data** within India, regardless of whether the data principal (the individual) resides in India or overseas. Since e-commerce platforms collect and process personal data such as names, contact details, payment information, and browsing behavior, they are classified as **Data Fiduciaries** under the Act.

4.4.2 Key Obligations of E-Commerce Companies under DPDP Act

Lawful Purpose and Consent Framework

- E-commerce platforms must collect and process personal data only for lawful purposes and after obtaining clear, specific, and informed consent from the data principal.
- Consent must be free, informed, specific, and unambiguous, with the data principal having the right to withdraw consent at any time.
- For processing data of minors (below 18 years) or persons with disabilities, verifiable parental or guardian consent is mandatory.



• Data Minimization and Purpose Limitation

- Data collection must be **limited to what is necessary** for the specified purpose. E-commerce platforms cannot collect excessive data beyond what is required to fulfill an order or provide services.
- Personal data must not be processed in a manner inconsistent with the purpose for which consent was obtained.



Notice and Transparency

- Platforms must issue clear and accessible Privacy Notices informing users about:
 - Purpose of data collection
 - Categories of personal data collected
 - Retention period
 - Rights available to data principals
 - Details of data sharing with third parties

Data Retention and Deletion

- Personal data must be deleted once the purpose is fulfilled or when the data principal withdraws consent, unless retention is required under law.
- o E-commerce platforms must implement processes for data erasure upon request.

Data Principal Rights

The Act empowers users with several rights, including:

- Right to Access personal data being processed.
- o Right to Correction and Erasure of incorrect or outdated data.
- o **Right to Grievance Redressal** through a designated Data Protection Officer (DPO).
- Right to Nominate another person to exercise rights in case of incapacity.

Data Security and Accountability

- E-commerce companies must implement reasonable security safeguards to prevent data breaches, unauthorized access, or misuse.
- Mandatory reporting of personal data breaches to the Data Protection Board of India and the affected data principals.
- Appointment of a Data Protection Officer (DPO) if classified as a Significant Data Fiduciary (criteria to be notified by the Government).
- o Conduct periodic Data Protection Impact Assessments and audits.

Restrictions on Cross-Border Data Transfers

The DPDP Act allows cross-border transfer of personal data but subject to government-prescribed conditions and restrictions. E-commerce platforms outsourcing payment processing, customer service, or data analytics to offshore entities must ensure:

- Adequate safeguards and contractual obligations for data protection.
- Compliance with any country-specific data transfer restrictions notified by the Government.



Penalties and Enforcement

The Act prescribes substantial penalties for non-compliance:

Nature of Violation	Maximum Penalty
Breach of data security safeguards	₹250 crore
Failure to notify personal data breaches	₹200 crore
Violation of consent obligations	₹200 crore
Non-fulfilment of data principal rights	₹50 crore

4.5 FEMA Regulations

4.5.1 Key Definitions and Conditions

- **E-commerce** involves the buying and selling of goods and services, including digital products, over digital and electronic networks.
- E-commerce Entity refers to:
 - o A company incorporated under the Companies Act, 2013,
 - A foreign company under Section 2(42) of the Companies Act, 2013, or
 - An office, branch, or agency in India under FEMA regulations, owned or controlled by a person resident outside India.



- **Inventory-Based Model**: The e-commerce entity owns the inventory and sells directly to consumers. *Note: FDI is not allowed in this model.*
- **Marketplace Model**: The e-commerce entity provides a digital platform to facilitate transactions between buyers and sellers without owning the inventory.

4.5.2 Operational Guidelines for Marketplace E-Commerce

- Digital networks include computers, mobile apps, web pages, TV channels, and other automated internet applications.
- Marketplace entities can conduct B2B transactions with sellers registered on their platform.
- They may offer support services like warehousing, logistics, order fulfillment, call center support, payment collection, etc.
- Marketplace entities cannot own the inventory. Doing so would classify them as inventory-based, where FDI is prohibited.
- No more than 25% of total sales (on a financial year basis) may be attributed to one vendor or its group companies.
- Websites must clearly display the name, address, and contact details of the seller.
- Sellers are responsible for product delivery and customer satisfaction.
- Payment facilitation must comply with RBI guidelines.



- Warranties and guarantees are the seller's responsibility.
- Marketplace entities must not influence sale prices and must ensure a level playing field.
- Cash-and-carry wholesale trading norms are applicable to B2B e-commerce activities.

4.5.3 E-Commerce and Foreign Direct Investment (FDI) Policy in India

• B2B E-Commerce – 100% FDI under Automatic Route

Companies engaged exclusively in Business-to-Business (B2B) e-commerce are permitted 100% FDI under the automatic route. However, they are not allowed to engage in retail trading activities. Existing restrictions on FDI in domestic retail trading will apply to such entities. (RBI Notification No. FEMA 20(R)/ 2017-RB dt. 07 November 2017)

• Marketplace Model – 100% FDI under Automatic Route

E-commerce entities following the marketplace model are also permitted 100% FDI under the automatic route.

Sale of Services

Services offered through e-commerce platforms are permitted under the automatic route, subject to applicable sector-specific regulations.



Chapter 5: Challenges in Growth of E-Commerce Platforms

5.1 Regulatory and Compliance Hurdles

India's regulatory landscape is evolving, and e-commerce platforms need to comply with various laws related to taxation (like TDS, TCS, GST, etc.), product safety, consumer protection, and data privacy (e.g., DPDP Act 2023). Many platforms may not have an internal expert team to navigate these laws can be complex, especially for cross-border platforms or those operating in multiple states, each with its own set of regulations.

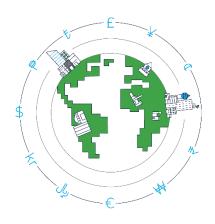
Staying compliant with ever-changing policies is crucial to avoiding fines, legal complications, and reputational damage. E-commerce businesses must invest in legal and compliance teams or softwares to stay updated and adapt quickly.

5.2 Customer Trust, Data Security & Fraud Prevention

5.2.1 Consumer Education and Trust Building

Many Indian consumers, particularly in rural areas, remain hesitant to shop online. The lack of brand recognition, unclear return policies, and concerns over product quality contribute to this reluctance. Additionally, linguistic and cultural diversity in India means that platforms must offer a tailored experience to cater to various regions.

Building consumer trust through transparency in transactions, authentic product listings, and easy return policies is essential. Additionally, integrating local languages into platforms, offering customer support in various languages, and educating consumers through digital literacy campaigns can help overcome trust barriers.



5.2.2 Lack of Trust in Digital Payments

While digital payments have grown rapidly, cash-on-delivery (COD) is still a preferred option for many Indian consumers. The lack of trust in digital transactions is particularly prevalent in rural areas and among older populations. Several factors contribute to this lack of trust:

- **Fear of fraud and scams:** Consumers worry about the safety of their financial information and the risk of payment failure or fraudulent transactions.
- **Concerns about payment security:** Even with advancements in secure payment methods, skepticism remains around online payment systems, especially in smaller towns and villages.

E-commerce platforms must focus on educating customers about secure online payment methods, offer payment options that cater to various preferences, and ensure robust fraud prevention mechanisms are in place.

5.2.3 Scams and Fraudulent Activities

With the rise in online transactions, scams and fraud have become a growing concern. Fraudulent sellers, counterfeit products, and fake offers contribute to consumer mistrust. Scams like "fake delivery attempts" or "wrong product delivery" also occur, leading to reputational damage for e-commerce platforms.



Platforms must invest in vendor verification, secure transaction processes, and customer service that resolves disputes quickly. Educating consumers on recognizing scams and ensuring transparency in listings is also essential to building trust.

5.3 Logistics & Infrastructure Constraints

5.3.1 Logistics and Last-Mile Delivery

Last-mile delivery is one of the most significant challenges for ecommerce platforms in India. The last mile refers to the final leg of the delivery journey, from the local distribution center to the consumer doorstep.

Last mile delivery faces issues like:

- Traffic congestion in urban areas
- Poor road conditions and infrastructure in rural and remote regions



Rising delivery costs due to inefficiencies and the need to serve a vast, diverse geography

These factors make it difficult to ensure fast, cost-effective, and reliable delivery. In urban areas, delivering on time can be challenging due to traffic, while in rural areas, deliveries may be delayed because of poor infrastructure, lack of proper roads, and scattered settlements. To address this, ecommerce companies must invest in optimizing their supply chain, leverage technology like route optimization, and work with local logistics partners who have expertise in rural and regional delivery.

5.3.2 Rural Penetration

Rural India holds a huge potential for e-commerce growth but remains underpenetrated due to various barriers:

- Limited internet connectivity and low digital literacy in rural areas make it difficult for consumers to access e-commerce platforms or understand how to shop online.
- Low disposable income in rural areas makes consumers more price-sensitive, which can reduce demand for certain product categories.
- Limited access to payment systems like credit/debit cards or digital wallets, further reinforcing reliance on COD.

Overcoming these barriers requires platforms to develop localized solutions, such as regional language support, affordable data packages, and educating consumers about the benefits of ecommerce. Additionally, offering COD options, simplified user interfaces, and targeted marketing strategies can help increase rural adoption.

5.3.3 Infrastructure Challenges

India's infrastructure ranging from roads to internet connectivity poses significant challenges for e-commerce growth:

• Inadequate roads, especially in rural areas, slow down logistics and delivery operations.

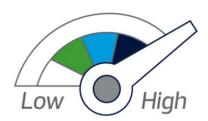


- Limited warehouse and fulfillment centers in certain regions lead to inefficiencies in inventory management and delays in shipping.
- Uneven internet penetration across the country makes it difficult for rural and semi-urban areas to access e-commerce platforms effectively.

5.4 Intense Competition & Profitability Challenges

5.4.1 Increasing Competition

The e-commerce market in India is flooded with global giants, local players, and niche startups, intensifying competition. Smaller platforms face difficulties in differentiating themselves and capturing market share in this crowded space. The fight for customer loyalty is fierce, with platforms constantly innovating on product offerings, pricing strategies, and customer engagement.



5.4.2 Rising Customer Expectations

Consumers now expect fast deliveries, easy returns, personalized experiences, and round-the-clock customer support. The challenge lies in meeting these demands while keeping costs manageable, particularly in a country with significant logistical challenges.

5.4.3 Profitability Pressure

Despite the vast market potential, maintaining profitability is difficult due to:

- Price-sensitive consumers who often expect discounts, promotions, and low prices.
- High logistical costs, especially for last-mile deliveries.
- The discounting culture that drives platforms to offer heavy discounts to attract and retain customers, further squeezing margins.



Chapter 6: Risk Factors and Audit in E-Commerce Businesses

Doing an e-commerce business poses a lot of challenges and is prone to significant risks as the industry is backed by huge investor funding. The following are the key risks process wise:

Process	Risk
	 Fake or fraudulent orders inflating revenue / Fabricating and over- reporting user-base: The business must report how transactions are validated and processed, as well as how the billing process is controlled. Disclosures of billing and settlement terms are also required.
	• Incident Reported: As per recent news, it was noted that a JP Morgan investee company defrauded JP Morgan with fabricated data to falsely inflate the Company's user base from around 300,000 to 4.25 million users. The promoters of the Company had appointed a data science company to generate a fake user list during the due diligence. ¹
Order to Cash	ii. Incorrect revenue recognition: recording income before it's actually earned can significantly distort a company's financial health. This practice may inflate revenues and profits in the short term but can lead to severe long-term consequences, including regulatory scrutiny and loss of investor trust.
Order to Cash	• Incident Reported: A large Ed-tech Company initially recognized the entire revenue from multi-year courses at the time of sale, rather than spreading it over the course duration. This approach was flagged by auditors as it didn't align with standard accounting practices, leading to an overstatement of revenues.
	• Impact of Accounting Changes: After adjusting its revenue recognition methods, Byju's reported a revenue of ₹2,428 crore in FY21, a 14% decline from the previous year, and losses surged to ₹4,588 crore. The company attributed this to deferring approximately 40% of its revenue to subsequent years due to the new accounting practices.
	Delayed Financial Reporting: The company delayed filing its FY21 financials by 18 months, leading to increased scrutiny from regulators and stakeholders. ²

¹ https://timesofindia.indiatimes.com/technology/tech-news/charlie-javice-the-woman-founder-of-fintech-startup-and-winner-of-forbes-30-under-30-may-face-30-years-jail-terms-for-defrauding-americas-largest-bank-jpmorgan-chase/articleshow/119789044.cms

 $^{^2\,}https://www.financialexpress.com/business/industry-fixing-byjus-financial-reporting-key-challenge-for-new-cfo-3034172/$



Process		Risk
	iii.	 Misapplication of discounts and promotional offers: The promotions and offers run by the e-commerce companies are configured in the back end and applicable for a limited period of time. Incident Identified: In one of our e-commerce clients, it was noted that few employees who identified that promotions are still active in the system and not have been disabled. They took benefit of the same and ordered goods that resulted in revenue loss of INR 10 lakhs during 2024.
	iv.	Exploitation of Sales Return Policy: Criminals also register as seller/customer on e-commerce websites, identify the loopholes and resort to fraud that significantly costs the Company.
		• Incident Reported: Criminals registered in the firm name of Om Sai Fashion created fake buyers and manipulated a large e-commerce Company's Sales Return process. The suspects created hundreds of bogus consumer accounts with fake addresses and phone numbers. They placed an average of 2,500 orders monthly with Om Sai Fashion. Since the delivery addresses were fictitious, all parcels were returned to the seller. The Company's audit team flagged discrepancies between the sold and returned items, prompting a deeper investigation. The police traced large payments to two bank accounts linked to Om Sai Fashion, uncovering the scam. During interrogation, the arrested suspects confessed to the scheme. The fraud involved financial loss of INR 5.5 crores. ³
		• Incident Reported: Similarly, a Jaipur-based gang exploited Myntra's return policies to cheat the platform of ₹1.1 crore by placing bulk orders for branded merchandise and claiming false refunds. They exploited the platform's return and refund policies over several months this year, ordering bulk products, claiming fake complaints, and pocketing the money. Once the goods were delivered, the fraudsters would initiate refund requests, claiming issues like product shortages or mismatches in colour. Most of these fraudulent orders were delivered to addresses in Bengaluru. Reportedly, around 5,529 fraudulent orders were shipped to different locations across the city. Interestingly, the fraudsters often provided delivery addresses to small commercial establishments like tea stalls, tailor shops, and provision stores, making the scam harder to detect.⁴
		Reportedly, two major e-commerce companies reported a total loss of INR 55 crores collectively due to elaborate fraud schemes. ⁵

³ https://www.deccanherald.com/india/karnataka/bengaluru/gang-registers-as-seller-with-e-commerce-company-exploits-returns-policy-swindles-rs-5-5-crore-3302465

⁴ https://www.financialexpress.com/life/technology-myntra-1-1-crore-refund-scam-fraudsters-cheat-e-commerce-platform-with-fake-orders-3689490/

⁵ https://www.cnbctv18.com/technology/e-commerce-giant-myntra-meesho-hit-by-cyber-fraud-schemes-19522059.htm



Process	Risk
	v. Revenue leakage due to discount misapplication: Improper application of discounts, whether due to system loopholes, unauthorized overrides, or misuse of promo codes, leads to margin loss. Lack of validation controls or audit trails makes detection and prevention difficult. Fraudulent discount usage often requires post-facto analysis to quantify impact.
	vi. Uncollected receivables from marketplaces or payment gateways: Delayed or missed settlements from marketplaces or payment partners can strain cash flow and distort revenue recognition. Lack of reconciliation processes or contractual clarity often leads to disputed or untraceable amounts. This poses audit risks and potential write-offs, impacting profitability and working capital.
	vii. Revenue loss from pricing errors on website or app: Incorrect product pricing, due to manual errors, system glitches, or logic flaws can lead to unintended customer discounts or underbilling. Once orders are placed, companies may be forced to honor them or risk customer dissatisfaction. Such issues directly erode margins and can go unnoticed without robust exception monitoring.
	viii. Failure to recognize promotional or cashback liabilities correctly: Unrecorded or under-provisioned cashback and promotional schemes distort true profitability. If not accounted for on an accrual basis, it can misstate liabilities and mislead financial reporting. This can also trigger regulatory non-compliance or investor mistrust.
	ix. Employee Frauds relating to refunds to customer without return of products: Three employees of a large multi-national e-commerce company collaborated with various Lucknow based customers to manipulate the Company's software and carry out the scam. The employees were part of customer care team. They exploited their access by cancelling the orders and marking them as Return to Origin thought they have been delivered, allowing customers to get refunds. Despite the cancellations, the products were delivered and not returned back. The e-commerce operations were outsourced to a third party service provider. It has resulted in loss of INR 80 lakhs to the e-commerce company ⁶
	x. Fake Customer reviews damaging the reputation of Marketplace: Customers mainly rely on customer reviews and product ratings to make decision of buying a product from the marketplace. However, if the same are manipulated, it results in loss of trust on marketplace and thereby reduced topline and bottom-line.
	Incident Reported: A survey conducted by CloudSEK, a contextual Al company has found that over 4,000 fake reviews in just 3-4 months took

 $^{6} \, https://www.hindustantimes.com/cities/chandigarh-news/graft-cases-against-ias-officers-haryana-declines-to-grant-approval-to-firs-against-ashok-khemka-ias-colleague-101746214136523.html$



Process	Risk
Process	place across the country influencing millions worth of product purchases in e-commerce. According to the findings, organized networks of marketing agencies, mediators, and peer groups breach consumer trust and fair competition and put e-commerce integrity at risk. ⁷
	xi. Payment gateway settlement delays or errors Delays or mismatches in settlements from payment gateways disrupt cash flow forecasting and revenue recognition. Reconciliation challenges can lead to unrecorded income, write-offs, or disputes with providers.
	xii. High chargeback volumes and associated penalties Frequent customer disputes especially in fraud-prone categories result in chargebacks, loss of revenue, and penalties. Excessive chargebacks can lead to higher processing fees or even deactivation by payment processors.
	xiii. Unreliable customer credit evaluations (B2B models): In e-commerce, inadequate vetting of buyer creditworthiness can lead to delayed payments or bad debts. Absence of a structured credit policy increases working capital risk. While Buy-now Pay-later is being promoted to boost sales, inadequate credit evaluation and excessive credit limits can lead to bad debts write-off.
	 i. Unapproved discounts, commissions, or affiliate payouts: Manual overrides or system gaps may allow unauthorized discounts or excessive commissions. In affiliate programs, false conversions or inflated traffic metrics can trigger illegitimate payouts.
	ii. Improper capitalization vs. expensing of tech/development costs: Companies often misclassify routine IT maintenance or trial-stage developments as capital assets. This inflates EBITDA and defers cost recognition, leading to accounting misstatements.
Procure to Pay	iii. Ghost vendors or fake invoices in procurement: Fraudulent vendors may be created to raise fake invoices, with payments siphoned off by insiders. Such transactions often bypass standard approvals or documentation trails. E-commerce companies are spending significantly on air travel and accommodation akin to the funding support it has. The budgetary controls are generally not in place. However, there are corresponding challenges that come with the non-budgetary control.
	• Incident Reported: A 36-year old former e-commerce employee, Sujita from Worli, had been arrested in October 2024 for allegedly defrauding her company of INR 35.88 lakhs through fraudulent reimbursements. The former employee, who worked as an executive assistant at the e-commerce company from September 2017 to September 2022, was

 $^7\,https://www.etvbharat.com/en/!bharat/survey-finds-4000-fake-reviews-influencing-rs-13-lakh-worth-of-products-in-e-commerce-in-3-4-months-enn25031106692$



Process	Risk
	found to have created forged bills using the logos of hotels and restaurants. 8
	• Incident Reported: An audit at a large Fintech startup exposed that the company had made payments to non-existent HR consultancy firms. These firms were linked to the head of controls and wife of the cofounder. Investigations found that these entities shared common addresses and other details, suggesting they were shell companies. Employees listed in the invoices denied any association with these consultants, indicating that the firms did not facilitate their recruitment
	iv. Unrecorded liabilities for services received: Services consumed but not invoiced (like digital ads, warehousing) can lead to understated liabilities. This results in profit overstatement and reconciliation issues during audit or vendor settlements.
	v. Inadequate control on logistics cost pass-throughs (reverse logistics): Return freight, damaged goods, or customer complaint handling costs may not be billed to relevant cost centres. This leads to inaccurate P&L attribution across categories, geographies, or product lines.
	vi. Inaccurate warehouse and shipping cost allocations: Overheads like rent, manpower, or packaging are often not allocated proportionally by order volume or SKU. This skews profitability analysis and can lead to under pricing or overpricing decisions.
	vii. Vendor fraud – inflated rates, related party conflicts: Vendors may overcharge or collude with employees to inflate rates or bill for undelivered services. Undisclosed related-party arrangements can lead to biased procurement and financial leakage.
	• Incident Reported: Between 2013 and 2015, a cybercriminal impersonated a vendor, sending fake invoices to Facebook and Google. Both companies processed these fraudulent payments, resulting in combined losses of \$100 million.
	viii. Duplicate or erroneous payments: Weak controls in payables systems can result in the same invoice being paid multiple times. Such errors can remain unrecovered if vendors don't report or if audits are infrequent.
	ix. Failure to account for loyalty/reward program expenses: Loyalty points or rewards offered to customers represent a deferred liability. If not accrued based on usage trends and redemption rates, they understate liabilities and inflate margins.

 8 https://timesofindia.indiatimes.com/city/mumbai/ex-e-commerce-executive-arrested-for-rs-36-lakh-fraud/articleshow/114662652.cms

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Process	Risk
	x. Fraudulent payments due to Phishing e-mail: Employees may fall prey to phishing emails that impersonate vendors, CXOs, or finance heads, tricking them into processing unauthorized payments. These scams often include fake invoices or urgent payment requests with seemingly genuine bank details. Lack of multi-level verification and weak email security protocols significantly heighten this risk.
	• Incident Reported: In 2016, FACC, an Austrian aerospace company, suffered a \$61 million loss when an employee, deceived by a phishing email purportedly from the CEO, authorized a massive fund transfer.
	xi. Overstated marketing spend (click fraud, duplicate billing): Digital campaigns are prone to click fraud where bots inflate clicks or views resulting in wasted ad spend. Duplicate or unverifiable invoices from agencies can further inflate marketing costs, distorting ROI analysis.
	i. Data privacy breach affecting financial liabilities (GDPR/DPDP Act) Unauthorized access to customer financial or personal data can trigger penalties under global data protection laws. Such breaches also invite reputational damage and potential class-action claims. Given the fact that there are significant penalties on data privacy non-compliance and given that e-commerce companies handle enormous amounts of personally identifiable information, this is a very significant risk.
IT & Cybersecurity	 Incidents Reported: TikTok (€530 Million Fine – 2025) The Irish Data Protection Commission fined TikTok €530 million for unlawfully transferring European user data to China without adequate safeguards, violating GDPR provisions.
	Amazon (€746 Million Fine – 2021) Amazon was fined €746 million by Luxembourg's data protection authority for processing personal data in violation of GDPR, marking one of the largest fines under the regulation.
	 Meta Platforms (€1.2 Billion Fine – 2023) Meta was fined €1.2 billion for transferring European user data to the U.S. without adequate protection, breaching GDPR rules.
Regulatory Compliance and Financial Reporting	i. Non-compliance with GST e-invoicing and filings: Failure to issue GST-compliant e-invoices or delays in return filings can result in penalties, denial of input tax credit (ITC), and business disruptions. Frequent changes in tax rules and system integrations make compliance especially challenging for high-volume e-commerce operations.



Process	Risk
	 ii. Incorrect deduction or delayed deposit of TDS (Tax Deducted at Source) or TCS (Tax Collected at Source): It can lead to interest, penalties, and disallowance of expenses. This is particularly relevant in e-commerce where commissions, advertising, and vendor payouts attract withholding obligations.
	iii. Inadequate transfer pricing documentation (cross-border related parties) For e-commerce companies with global operations, failure to justify intercompany pricing can result in tax authority scrutiny, penalties, or profit adjustments. Timely maintenance of benchmarking studies and intercompany agreements is essential to defend transfer pricing positions.
	iv. Inaccurate or delayed financial reporting Late or incorrect monthly/quarterly closures can lead to misinformed decision-making and investor distrust. It also hampers timely regulatory filings, bank covenants compliance, and performance tracking.
	v. Incorrect foreign currency conversion or exposure risk: For cross-border transactions, FX conversion errors or timing mismatches can result in unrealized losses. Lack of hedging mechanisms amplifies the financial impact of currency fluctuations.
	vi. Lack of proper documentation for audit or regulatory review: Absence of supporting records for revenues, expenses, or reconciliations can result in adverse audit findings. This not only impacts credibility but may also lead to financial restatements or regulatory sanctions.
	The HR and Payroll risks that exists for all Companies are also prevalent and applicable to e-commerce companies as well. Following are the key risks:
Human Resources & Payroll	 Ghost employees on payroll Unauthorized salary hikes or bonus approvals Non-compliance with PF, ESI, gratuity, or labour laws Misclassification of employees vs. independent contractors Payroll processing errors (overpayment/underpayment) Lack of proper documentation for new hires or exits Unreconciled full & final settlements Unrecorded or delayed leave encashment liabilities Inaccurate calculation of variable pay or incentives Employee fraud or collusion with HR staff Salary payments to exited/inactive employees Errors in TDS deduction or filing for salaries



Chapter 7: Way Forward

As the e-commerce sector continues to scale, businesses must shift focus from rapid expansion to sustainable, compliance-led growth. The ecosystem is becoming increasingly complex integrating supply chains, cross-border transactions, evolving digital infrastructure, and rising customer expectations. This necessitates a forward-looking strategy that balances innovation with strong risk governance.



A sustainable future for e-commerce companies depends on:

- Robust Risk Management Frameworks: Companies must institutionalize risk registers, periodic
 audits, and controls around revenue recognition, payment reconciliation, and fraud detection,
 particularly across multi-party platforms.
- **Sustainable Growth:** Focus on unit economics, eco-friendly packaging, responsible sourcing, and optimizing logistics to reduce carbon footprint while maintaining profitability.
- Compliance-First Culture: Proactively aligning with tax laws, data privacy norms, labour regulations, and platform-specific rules will mitigate legal risks and bolster investor and customer confidence.
- Digital Infrastructure and Automation: Automating financial operations (e.g., GST filings, reconciliations, payroll processing) and embedding real-time analytics will improve accuracy, scalability, and speed of decision-making.
- **Strengthening Trust and Transparency**: Transparent refund policies, ethical sourcing, data protection, and responsible marketing will foster long-term customer relationships and reputational capital.
- Agility with Governance: As marketplaces evolve, so must internal governance adapting to emerging risks like Al-driven pricing fraud, ESG disclosures, or global tax harmonization frameworks.

By aligning operational growth with financial prudence and regulatory discipline, e-commerce businesses can unlock resilient growth paths creating enduring value for all stakeholders.

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This Whitepaper outlines a strategic framework for building a sustainable and risk-managed e-commerce business, serving as a vital roadmap to achieving long-term success and profitability. It may be noted that nothing contained in this whitepaper should be regarded as our opinion and facts of each case will need to be analyzed to ascertain thereof and appropriate professional advice should be sought for applicability of legal provisions based on specific facts. We are not responsible for any liability arising from any statements or errors contained in this whitepaper.

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