



# Future Trends of E-commerce Supply Chain in India.

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**Abstract** – The e-commerce sector's rapid expansion has made supply chain management a critical factor for success. This abstract explores the future trends shaping e-commerce supply chains, emphasizing the need for agility, resilience, and sustainability. The convergence of technology, evolving consumer expectations, and global disruptions necessitates a comprehensive understanding of emerging strategies. Key trends include the adoption of artificial intelligence (AI) and machine learning (ML) for predictive analytics and automated decision-making. Blockchain technology is poised to enhance transparency and security across the supply chain. Furthermore, the rise of sustainable practices is driving businesses to adopt circular economy models and reduce their environmental impact. This research highlights the importance of strategic investments in technology, infrastructure, and talent development to navigate the complexities of the future e-commerce landscape. By embracing these trends, businesses can optimize their supply chains, enhance customer satisfaction, and achieve long-term competitive advantage.

**Keywords** – The e-commerce supply chain management landscape is continuously evolving, with key trends revolving around the adoption of advanced technologies, data-driven strategies, and sustainable practices. Businesses that prioritize these trends are expected to be better positioned for success in the coming years. Specifically, AI and Machine learning, Sustainability and Green Logistics, Internet things and real time visibility, Agile and Resilient Supply chain, Digital transformation and Data management, Transformation and visibility, Low-Code platform, Electric vehicle and logistics

## I. INTRODUCTION

This research delves into the emerging trends reshaping e-commerce supply chains, focusing on technological advancements, sustainability initiatives, and agile strategies. By examining these key areas, the study aims to provide insights into how businesses can optimize their supply chain operations to enhance customer satisfaction and operational resilience. The scope includes analyzing the impacts of artificial intelligence, blockchain technology, IoT, and green logistics practices on supply chain efficiency and sustainability.

Ultimately, this research seeks to equip stakeholders with a comprehensive understanding of the future landscape of e-commerce supply chain management. It emphasizes the importance of embracing innovation and adaptability to navigate upcoming challenges and opportunities. The findings will serve as a strategic resource for businesses looking to future-proof their supply chains and capitalize on the evolving dynamics of the e-commerce industry.

## II. PROBLEM STATEMENT

The primary problem lies in the gap between current supply chain practices and the evolving demands of the e-commerce industry. Many companies are still grappling with outdated systems and processes that hinder their ability to optimize inventory management, streamline logistics, and respond swiftly to disruptions. The lack of real-time data visibility, inefficient forecasting methods, and insufficient adoption of sustainable initiatives further exacerbate these

challenges. Consequently, there is an urgent need to identify, evaluate, and implement strategies that leverage technological advancements, promote environmental responsibility, and enhance supply chain resilience. Addressing this problem will enable e-commerce businesses to improve their operational efficiency, reduce costs, enhance customer satisfaction, and achieve sustainable growth in an increasingly competitive market.

### Objective

- Alternative industries started their work in e-commerce supply chain business.
- E-commerce companies are still not profitable in India
- What are best practices companies can do for the optimizing transportation cost.
- Identify and integrate technological advancements that can enhance the efficiency and effectiveness of e-commerce supply chains.
- Promote sustainable and green logistics practices within e-commerce supply chains. This involves identifying strategies for reducing carbon footprints and greenhouse gas emissions, such as efficient order fulfillment and optimized delivery routes.
- Enhance the agility and resilience of e-commerce supply chain operations. This involves identifying solutions that enable businesses to respond quickly to changes in consumer behavior and external factors.

### Types of E-commerce

**Business to Business (B2B)-:** Business to Business (B2B) e-commerce involves transactions between businesses, typically involving wholesale distributors selling products to retailers or manufacturers. This model



is characterized by bulk purchases of goods, negotiated prices, and longer sales cycles.

**Business to Consumer (B2C)-:** The Business to Consumer (B2C) model is perhaps the most recognized form of e-commerce, involving transactions where businesses sell directly to individual consumers. This model includes a wide array of digital retail platforms, from large e-commerce giants like Amazon to niche online stores. B2C e-commerce leverages various digital marketing strategies, personalized customer experiences, and convenient shopping options, often providing discounts and promotions to attract consumers.

**Consumer to Consumer (C2C)-:** Consumer to Consumer (C2C) e-commerce enables individuals to sell products or services directly to other consumers, typically through online marketplaces. Platforms such as eBay, Craigslist, and Etsy exemplify this model, allowing users to list items for sale and interact directly with potential buyers

**Consumer to Business (C2B)-:** The Consumer to Business (C2B) model inverts traditional e-commerce dynamics by enabling consumers to offer goods or services to businesses. This may involve freelance services, influencer marketing, or consumer-generated content. Platforms like Upwork and Fiverr exemplify C2B transactions, where individuals sell their skills or products to businesses seeking specific services or outputs.

**Business to Government (B2G)-:** Business to Government (B2G) e-commerce involves transactions between businesses and governmental agencies. This model includes the provision of goods and services to government bodies, often following strict procurement protocols. As government budgets are influenced by both public demand and policy regulations, businesses engaged in B2G transactions often encounter varying dynamics compared to B2B and B2C models. **Business to Government and Other Models-:** The business-to-government model complements other forms of e-commerce, such as Government-to-Business (G2B) and Consumer-to-Government (C2G) models, which define the transactional relationships involving governmental entities as buyers or sellers.

### III. LITERATURE REVIEW

#### Current E-commerce supply chain trend in India

The e-commerce sector in India is experiencing rapid transformation, significantly impacting supply chain dynamics across the country. Driven by technological advancements, changing consumer behavior, and evolving business models, these trends are altering how products are sourced, distributed, and delivered. This essay will examine the key current supply chain trends in India's e-commerce sector, focusing on technological integration,

sustainability, the rise of quick commerce, last-mile delivery innovations, and the adoption of data analytics.

**Technological Integration-:** One of the foremost trends in the Indian e-commerce supply chain is the increased integration of technology. The adoption of technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), and blockchain is revolutionizing operational efficiency and transparency within supply chains. AI is being utilized to optimize route planning, manage inventory, and forecast demand with high accuracy. IoT devices provide real-time tracking and monitoring of shipments, enhancing visibility across the supply chain. Blockchain technology also ensures secure transactions and fosters trust among stakeholders by providing an immutable record of each transaction. These technological advancements are not just improving supply chain efficiency but also enhancing the overall customer experience by providing timely and accurate information about order status.

**Sustainability-:** Sustainability is another critical trend shaping the Indian e-commerce supply chain. With growing awareness of environmental issues, both consumers and businesses are increasingly prioritizing sustainable practices. E-commerce companies are adopting green logistics strategies that focus on minimizing their carbon footprint, such as optimizing delivery routes to reduce emissions and incorporating eco-friendly packaging solutions. Additionally, there is a push for establishing circular supply chains that emphasize recycling and minimizing waste. Research indicates that consumers are more loyal to brands that demonstrate environmental responsibility, making sustainability a crucial competitive advantage in the rapidly evolving market.

**Rise of Quick Commerce-:** The rapid rise of quick commerce has introduced a new paradigm in the e-commerce supply chain landscape in India. Quick commerce platforms like Blinkit, Zomato's Instamart, and Swiggy Instamart focus on ultra-fast delivery of groceries and essential goods, often within 10 to 30 minutes. To meet this demand for speed, these companies have established numerous dark stores—local warehouses that enable faster fulfillment of orders. This trend has necessitated significant investment in logistics and technology to ensure efficient inventory management and delivery processes. Quick commerce is reshaping consumer expectations, with end-users now seeking immediacy in service that challenges traditional e-commerce delivery timelines.

**Innovations in Last-Mile Delivery-:** Last-mile delivery innovations are vital to enhancing the efficiency of e-commerce supply chains in India. As consumer



expectations for faster deliveries grow, companies are exploring various strategies to optimize this critical aspect of logistics. For instance, the use of automated guided vehicles and drones for deliveries is gaining traction. These technologies aim to improve delivery speed and reduce operational costs. Furthermore, businesses are increasingly adopting hybrid delivery models that combine traditional transport methods with new-age technologies, ensuring that deliveries can reach evolving consumer demographics across urban and rural landscapes effectively.

**Adoption of Data Analytics:-** The adoption of data analytics plays a crucial role in refining supply chain operations. E-commerce businesses are leveraging data insights to enhance demand forecasting, inventory management, and customer experience. By analyzing consumer behavior and market trends, companies can make informed decisions that optimize stock levels and reduce instances of stockouts or overstocking. Moreover, predictive analytics helps in anticipating demand surges during peak shopping seasons, allowing retailers to streamline their supply chains and maintain high service levels. This data-driven approach is essential for fostering resilience in the supply chain and adapting to fluctuating market conditions.

#### **Limitation for E-commerce supply chain in India:-**

- **Inadequate Infrastructure:** Poor Road, rail, and port infrastructure lead to delays in deliveries and increased logistics costs, particularly affecting last-mile delivery.
- **Regulatory Complexities:** The complicated web of taxes, customs regulations, and compliance requirements creates uncertainty and can lead to increased operational risks for e-commerce companies.
- **Skilled Labor Shortages:** There is a significant gap in the availability of skilled workers in logistics and supply chain management, impacting operational efficiency. Technology
- **Adoption Issues:** Many businesses struggle to adopt advanced technologies due to high costs and a lack of necessary skills, limiting their competitiveness.
- **Financial Constraints:** Small and medium-sized enterprises often face difficulties in accessing affordable financing, restricting their ability to invest in supply chain improvements.
- **Last-Mile Delivery Challenges:** The final leg of delivery remains complex, with challenges such as traffic congestion, inaccurate addressing, and delivery inefficiencies leading to customer dissatisfaction.
- **High Return Rates:** E-commerce companies in India experience high return-to-origin (RTO) rates due

to order cancellations and failed deliveries, impacting overall supply chain efficiency.

- **Lack of Real-Time Visibility:** Many supply chains lack real-time tracking and monitoring systems, making it difficult for businesses to manage logistics effectively and respond to disruptions.
- **Cybersecurity Threats:** E-commerce businesses face significant risks from data breaches and cyberattacks, which can compromise customer trust and disrupt operations.
- **Cultural and Linguistic Diversity:** India's vast linguistic and cultural diversity necessitates tailored marketing and logistics strategies, complicating supply chain operations and customer targeting.

These barriers necessitate strategic intervention from stakeholders across the e-commerce ecosystem to foster more resilient and efficient supply chains in India.

#### **Benefits for E-commerce supply chain in India:-**

**Improved Operational Efficiency:-** E-commerce significantly enhances operational efficiency by streamlining processes and reducing redundancies in supply chains. Automation in order processing and inventory management leads to quicker turnaround times and fewer errors, which results in improved productivity for businesses (A Review of E-Commerce Literature on India and Research Agenda For 2024).

**Expanded Market Reach:-** One of the standout advantages of e-commerce is its ability to broaden market access. Businesses can now target consumers located in remote areas, enabling them to penetrate markets that were previously inaccessible through physical retail outlets.

**Enhanced Customer Experience:-** E-commerce platforms allow businesses to provide a more user-friendly experience for customers, by offering seamless navigation, personalized recommendations, and expedited service. Enhanced customer experiences, facilitated by e-commerce technologies, lead to increased satisfaction and loyalty, ensuring that consumers are more likely to return for future purchases.

**Cost Reduction in Operations:-** Integrating e-commerce into supply chains can lead to substantial savings across various operational dimensions. Companies benefit from reduced inventory holding costs and lower overheads, as e-commerce enables businesses to optimize their inventory levels through just-in-time fulfillment methods.

**Data-Driven Insights:-** The digital nature of e-commerce allows for the collection and analysis of vast amounts of consumer data. Businesses can gain insights



into buying patterns, preferences, and market trends, thus facilitating informed decision-making and strategic planning. Utilizing data analytics enables companies to tailor their marketing efforts and optimize their product offerings based on actual consumer needs.

**Flexibility and Scalability-:** E-commerce supply chains are inherently more flexible and scalable compared to traditional models. Companies can swiftly adjust to changes in consumer demand or market conditions, enhancing their ability to respond to competitive pressures. This flexibility is critical in today's fast-paced environment, where consumer preferences can shift rapidly.

**Faster Transaction Processing-:** The speed of transactions is markedly improved with e-commerce, as online transactions typically require less time than traditional methods. Customers can place orders, make payments, and receive confirmations with remarkable speed, which enhances overall efficiency. This immediacy is particularly appealing to consumers who value rapid service and quick delivery.

**Greater Supplier Collaboration-:** E-commerce facilitates better collaboration with suppliers and vendors by improving communication channels and fostering real-time information sharing. Enhanced supplier relationships result in more synchronized operations, reduced lead times, and greater supply chain resilience, ultimately benefiting the end consumer.

**Better Inventory Management-:** Using e-commerce platforms enables businesses to implement advanced inventory management practices. Real-time data updates allow for better forecasting and planning, resulting in optimal stock levels and reduced instances of overstocking or stockouts. Efficient inventory management is vital for maintaining customer satisfaction, as it ensures that popular products are readily available.

**Opportunities for Partnerships and Alliances-:** E-commerce creates opportunities for businesses to form partnerships and alliances, enhancing their operational capabilities. These partnerships can leverage shared resources and knowledge, thus improving overall supply chain performance and agility. Collaboration among different players in the supply chain fosters innovation and accelerates responsiveness to consumer needs.

**Existing Research Gap in E-commerce supply chain trends-:** The rapid evolution of e-commerce has transformed supply chain management, making it a significant area of academic inquiry and practical application. However, despite the considerable volume of

research, several critical gaps remain that require further exploration to enhance understanding and improve practices within the e-commerce supply chain domain. This essay identifies and discusses key gaps in the existing literature concerning e-commerce supply chain trends.

**Insufficient Focus on Emerging Technologies-:** A major gap in existing research involves the inadequate exploration of emerging technologies and their impact on e-commerce supply chains. While technologies such as blockchain, the Internet of Things (IoT), and artificial intelligence (AI) are recognized for their potential to revolutionize supply chain management, empirical studies investigating their specific applications and effects in e-commerce contexts are limited. Future research ought to address how these technologies can enhance operational efficiencies, improve transparency, and foster innovation within e-commerce supply chains.

**Lack of Integration Between Theories and Practice-:** Another significant deficiency within the current literature is the disconnect between theoretical frameworks and practical applications. Many existing studies focus on developing theoretical models without adequately addressing how these theories can be applied in real-world scenarios.

**Limited Examination of Supply Chain Sustainability-:** As consumers increasingly prioritize environmentally friendly practices, it is crucial to understand how e-commerce firms can adopt sustainable supply chain strategies while maintaining efficiency and profitability. Future research should explore sustainable logistics, resource management, and the role of corporate social responsibility in e-commerce supply chains.

**Insufficient Analysis of Consumer Behavior-:** However, there is still a lack of comprehensive research analyzing how e-commerce consumers' preferences, buying patterns, and behaviors influence supply chain dynamics. Investigating these aspects can provide deeper insights into demand forecasting, inventory management, and operational strategies, which are critical for tailoring supply chains to meet consumer expectations.

**Need for Cross-Industry Comparisons-:** There is a clear gap in comparative studies that examine how different sectors approach e-commerce supply chain management and what best practices can be derived from these differences. Future research should include cross-industry analyses to reveal insights that can drive supply chain improvements across various sectors.

**Limited Exploration of Global Supply Chain Issues-:** Current research has not adequately addressed



obstacles such as cross-border logistics, customs regulations, and international partnerships that can impede efficient supply chain operations in the context of e-commerce. Investigating these global issues can provide valuable insights into optimizing the international aspects of e-commerce supply chains.

#### **Evolution of Consumer Return Management-:**

Understanding how e-commerce firms can manage returns more efficiently, while maintaining customer satisfaction and reducing costs, emerges as a critical area for further research. This includes the exploration of reverse logistics, return policies, and their impact on supply chain performance.

#### **Hypothesis**

##### **Null Hypothesis (H0):**

There is no significant relationship between advancements in technology and the efficiency of the Future E-commerce supply chain in India.

##### **Alternative Hypothesis (H1):**

Advancements in technology significantly enhance the efficiency of the Future E-commerce supply chain in India.

## **IV. RESEARCH METHODOLOGY**

#### **Research Design**

This research adopts a mixed-methods approach, integrating both qualitative and quantitative research methodologies to gain a holistic understanding of the trends within India's e-commerce supply chain. The mixed-methods design allows for the triangulation of data, enhancing the validity and reliability of findings.

#### **Research Approach**

A sequential explanatory strategy will be employed, beginning with quantitative data collection followed by qualitative inquiries to elaborate on the numerical findings. This approach enables the identification of key trends through statistical analysis, which can then be contextualized with qualitative insights gathered from industry experts and stakeholders.

#### **Sources of Data**

**Primary Data:** Primary data collection involves the use of questionnaires administered to E-commerce supply chain Trends. The primary data collected through surveys provide direct insights into the causes, consequences, and mitigation strategies related to supply chain disruptions and shipment delays.

#### **Data Collection Method**

The data collection method involves the administration of questionnaires to a sample of E-

commerce supply chain trends in various types of age group people.

The research will utilize surveys and questionnaires to gather quantitative data from stakeholders in the e-commerce supply chain. Additionally, interviews and focus groups will be conducted for qualitative insights. A thorough literature review will help contextualize findings and identify existing knowledge gaps regarding future trends in the Indian e-commerce landscape.

#### **Sampling Techniques**

A stratified random sampling method will be used to ensure diversity in responses. This will involve segmenting the population based on age group, gender group, and their preference of buy product segmentation to accurately represent the wider Indian market.

Quantitative samples will be large enough to allow for statistical significance aiming for at least 100 participants.

#### **Sampling Frame**

A sampling frame is a critical component in research studies, especially in the context of identifying and understanding the population that one wishes to sample. In exploring the future trends of the e-commerce supply chain in India, establishing a robust sampling frame ensures that insights gathered reflect the true dynamics of this rapidly evolving market.

#### **Population**

The research population comprises stakeholders involved in the e-commerce supply chain, including suppliers, logistics providers, retailers, and consumers across various demographics and regions in India. This diverse group ensures a comprehensive understanding of the trends affecting the e-commerce landscape and its future developments.

#### **Date Collection Instrument**

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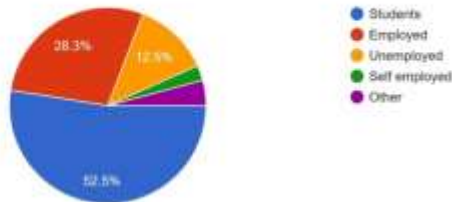
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### V. DATA ANALYSIS & INTERPRETATION

What is your employment status ?  
120 responses



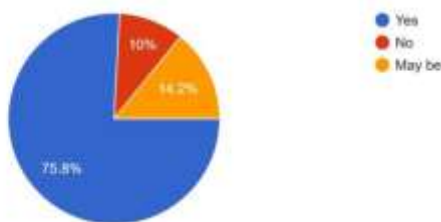
What is your employment status?		
Category	Responses	Percentages
Students	63	52.50%
Employed	34	28.30%
Unemployed	15	12.50%
Self employed	3	2.50%
Other	5	4.20%
Total	120	100%

#### Interpretation

In this given information show that we take responses for deferent type of employment group category that show in this research 52.50% students,28.30%Employed people,12.50% Unemployed people and 2.50% self-employed people provide their responses in this research

It shows that we take a response from deferent type category of people. And also, we categories people on the basis of their gender we collect 58.30% male and 41.70% female.

Do you like to shopping online ?  
120 responses



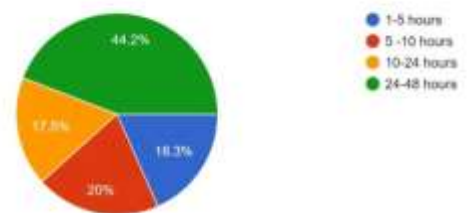
Do you like to shopping online?		
Category	Responses	Percentages
Yes	91	75.80%
No	17	10.00%
May be	12	14.20%
Total	120	100%

### INTERPRETATION

In This following given pie chart and table, we Assum that in online shopping for this people 75.80% of people now like to shopping form online platform in India and 10% of people still not like to shopping form online platform and 14.20% people preferred like shopping from any other way.

This chart also shows that there are 14.20% people not know that they like to shopping from online platform or not.by this quotation we make understating that in India around 75%-76%people like to shopping from online platform.

How much time you can wait for delivery ?  
120 responses



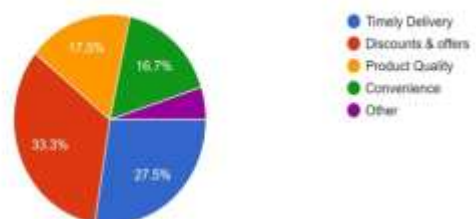
How much time you can wait for delivery?		
Category	Responses	Percentages
1-5 hours	22	18.30%
5 -10 hours	24	20.00%
10-24 hours	21	17.50%
24-48 hours	53	44.20%
Total	120	100%

#### Interpretation

In this following given pie chart and table show the waiting time of people in category wise like 18.30% people wait for their delivery 1-5 hours, 20.00% people wait for delivery 5-10 hours, 17.50% people 10-24 hours and 44.20% people wait for there product delivery 24-48 hours.

This interpet that there are many people waiting for their product delivery 24-48 hours. There are less interested in quick delivery 1-5 hours for buy products from online shopping.

What motivates you to shopping online ?  
120 responses





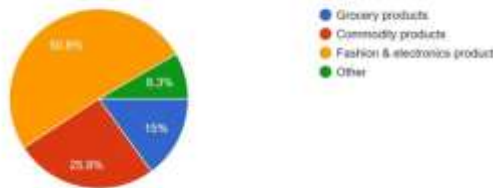
What motivates you to shopping online?		
Category	Responses	Percent ages
Timely Delivery	33	27.50%
Discounts & offers	40	33.30%
Product Quality	21	17.50%
Convenience	20	16.70%
Other	6	5.00%
Total	120	100%

**Interpretation**

In this following given pie chart and table 33.30% of motivated by discounting and offers given by E-commerce company, 27.50% of people motivated by timely delivery provided by E-commerce company, 17.50% people buy product by quality of product, 16.70% people shopping according to their convenience.

It indicates that people motivation for their shopping behavior in E-commerce. It also shows that there are many people do online shopping according to offers & discounts provide by E-commerce company.

Which type of product you prefer to buy online? 120 responses



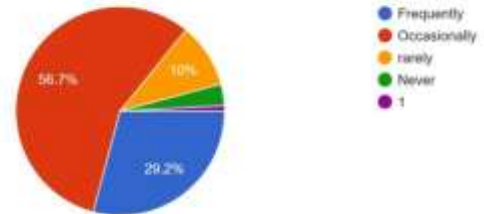
Which type of product you prefer to buy Online?		
Category	Responses	Percentages
Grocery products	18	15.00%
Commodity products	31	25.80%
Fashion & electronics product	61	50.80%
Other	10	8.30%
Total	120	100%

**Interpretation:**

In this following given pie chart and table showcase that which type of category product most of India people usually buying from E-commerce platform. That shows 50.80% India consumers are interested to buy fashion & Electronic products, 25.80% consumers interested to buy Commodity products, 15.00% consumers like to buy grocery products,

It interprets that there are many people entrusted to buy fashion & Electronic product form E-commerce.

How Frequently you use online platform for shopping in week? 120 responses



How Frequently you use online platform for shopping in week?		
Category	Responses	Percentages
Frequently	35	29.20%
Occasionally	68	56.70%
rarely	13	10.00%
Never	4	3.30%
Total	120	100%

**Interpretation:**

In this following given pie chart and table shows that there is 29.20% people frequently using e-commerce platform for purchase product or services, 56.70% people are occasionally using e-commerce, 10.00% people only use rarely E-commerce and 3.30% people in this research never use E-commerce for their fulfilment.

It interprets that there are many people like to use E-commerce platform for purchase services & products from E-commerce that provide a booster for E-commerce Industries growth in India market,

How important do you believe sustainability will be for future supply chain decisions? 119 responses



How important do you believe sustainability will be for future supply chain decisions?		
Category	Responses	Percentages
Extremely Important	30	25.20%
Very Important	34	28.60%
Moderately Important	39	32.80%
Slightly Important	14	11.80%
Not Important	3	1.70%
Total	120	100%

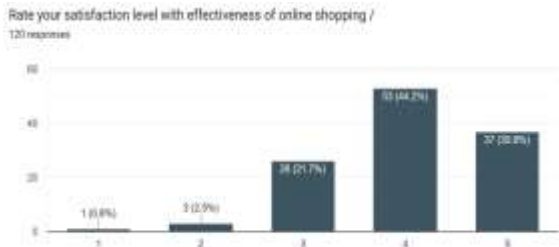
**Interpretation:**

In this pie chart and table shows that important of sustainability of E-commerce supply in India. 25.20% of people in this research believe that it is extremely important, 28.60% of people say that very important, 32.80% of people say that moderately important, 11.80%



of people say that slightly important and 1.70% people say that it is not important,

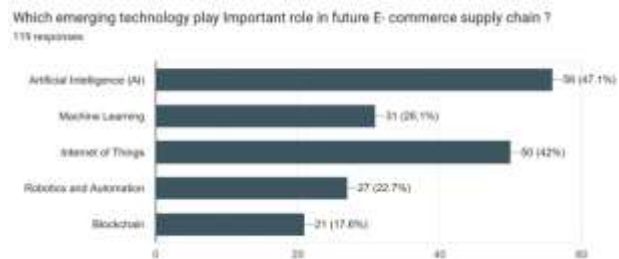
It is interpreting that people understanding regarding sustainability in E-commerce supply chain is cluster in India reign.



### Interpretation

In following given bar chart in shows that in India there are 30.80% population extremely satisfied from E-commerce supply chain, 44.20% population are very satisfied in India E-commerce supply chain, 21.70% population are moderately satisfied from India E-commerce supply chain and there are only 3.30% population Slightly satisfied from India E-commerce supply chain.

It interprets that there are maximum population in India satisfied from E-commerce supply chain. In this interpretation there are 90 people provide positive response in fever of E-commerce supply chain and 26 people moderate response.



### Interpretation

In following given chart shows which technology are most important for future E-commerce supply chain in India. According to this chart 47.10% Population support Artificial intelligence, 26.10% Population support machine learning, 42.00% Population support Internet of Things, 22.70% Population support robotics and automation and 17.60% Population support blockchain technology,

It makes Understanding about which future technology are most use to made smooth E-commerce supply chain in India,

### Findings

**Demographics-:** In this research demographically 58.9% responder are male and 41.1% responder are females in this research that find that there is male are

more active then female in E-commerce supply chain for buying products and services.

**Employment Status -:** In this research majority of population coming from student background (52.5%) and there are 28.3% population is employed people and other population is self-employed, unemployed and others.

**Product Users-:** In this research find that there is majority of population are buying fashion & electronics (50.0%) product from E-commerce platform's and other are buying grocery products (15.0%), commodity product (25.8%).

**Waiting Time-:** There are many people are wait for delivery product is 24-48(44.2%) hours, 10- 24 hours (17.5%), 5-10 hours (20%) and 5-10 hours (18.3%) people are waiting for their delivery.

**Satisfaction Level-:** In this research I find that there is 30.8% population are highly satisfied by E-commerce Platform, 44.2% population are very satisfied by E-commerce platform, 21.7% population moderately satisfied by E-commerce platform and 3.3% are dissatisfied from E-commerce plat form.

**Believe in Sustainability-:** By this research find that there is 25.2% population are extremely believed that suitability is important for E-commerce supply chain, 28.6% very important, 32.8% moderately important, 11.8% slightly important and 1.7% believed that it's not important.

**Emerging Technology-:** In emerging technology 47.1% population support artificial intelligent Technology, 26.1% population support Machin learning, 4% population support internet things, 22.7% population support robotics & automation and 17.6% population support to blockchain technology.

## VI. CONCLUSION

The future of e-commerce supply chains in India is poised for significant transformation, driven by technological innovations such as AI, IoT, and blockchain. These advancements are set to enhance operational efficiency, improve inventory management, and ensure real-time tracking, thereby meeting the growing consumer demand for quicker and more reliable deliveries.

Moreover, as sustainability becomes a crucial focus, companies must adapt to eco-friendly practices while navigating regulatory frameworks that promote consumer protection. This dynamic landscape presents both opportunities and challenges, requiring businesses to remain agile and innovative to thrive in the evolving e-commerce environment.





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