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Creating A Distinctive E-Commerce Platform For Cultural Heritage Products: A Visionary Venture

Himanshu Chauhan

MIT Art, Design & Technology University, Pune

Dhruv Yadav

MIT Art, Design & Technology University, Pune

Tharun Balaji

MIT Art, Design & Technology University, Pune

Manoj Kumar

MIT Art, Design & Technology University, Pune

Tejaswini Bhosale
Assistant Professor

MIT Art, Design & Technology University, Pune

Abstract: The landscape of business is witnessing a paradigm shift with the emergence of electronic commerce (e-commerce). This paper explores the transformative potential of e-commerce, particularly in the context of cultural heritage products. As global interest in cultural diversity grows, there is an increasing demand for unique and authentic items. However, existing e-commerce platforms often fail to adequately cater to this demand, lacking in product diversity, global reach, and ethical considerations.

This research paper presents a visionary venture aimed at addressing this gap by creating a distinctive e-commerce platform tailored specifically for cultural heritage products. The project focuses on offering a wide range of items including Pashmina Shawls, Jaipuri Blankets, Traditional Shoes, Banarasi Sarees, and various traditional clothing items.

A central issue addressed by this project is the absence of a centralized and accessible platform for cultural heritage products. Moreover, it emphasizes sustainability and ethical practices, aligning with evolving consumer preferences for eco-conscious and ethically sourced items. Through optimization for international customers, multilingual support, and international shipping, the platform seeks to reach a global audience and promote cross-cultural appreciation.

Innovative features such as virtual try-on and augmented reality are incorporated to enhance the online shopping experience, allowing customers to better visualize and connect with these traditional treasures. Collaborations with artisans and local communities ensure a consistent supply of authentic items while supporting traditional craftsmanship and local economies.

This paper combines comprehensive e-commerce services with a commitment to cultural preservation, aiming to meet the needs of a diverse and discerning customer base while fostering a deeper appreciation for cultural heritage products. Through empirical research and analysis, it sheds light on the potential of e-commerce to revolutionize the way cultural heritage products are bought and sold in the digital age.

Keywords: E-commerce, E-commerce trends, consumer behaviour, Rural e-commerce, technology adoption, mobile commerce

1. Introduction:

In the dynamic landscape of e-commerce, the evolution of online shopping has revolutionized the way goods and services are bought and sold. With the convenience of computer networks, individuals can now access a myriad of products and services from the comfort of their homes. The primary objective of e-commerce platforms is to facilitate transactions electronically, eliminating the need for physical presence in traditional brick-and-mortar stores.

Amidst this digital revolution, the market for cultural heritage products has emerged as a promising niche, reflecting a global appreciation for diversity and authenticity. Items such as Pashmina Shawls, Jaipuri Blankets, Traditional Shoes, Banarasi Sarees, and other indigenous clothing represent not just commodities, but embodiments of rich cultural narratives and traditional craftsmanship. However, despite the growing demand for these products, there exists a notable gap in the market: the absence of a comprehensive and accessible platform that offers a diverse range of cultural heritage items to a global audience.

This research paper introduces a visionary project aimed at addressing this gap by developing a specialized e-commerce platform dedicated solely to cultural heritage products. Beyond merely serving as a marketplace, this platform will prioritize sustainability and ethical practices, aligning with the conscientious preferences of today's consumers. Through strategic expansion into international markets, innovative technological integration, and meaningful collaborations with artisans and local communities, this initiative endeavors to bridge cultures and bring the world closer to the timeless beauty and significance of cultural heritage products.

In the following sections, we delve into the rationale behind this project, explore the current landscape of e-commerce in relation to cultural heritage, and delineate the objectives and methodologies employed in its implementation. Through empirical research and analysis, this paper seeks to shed light on the transformative potential of e-commerce in preserving and promoting cultural heritage while meeting the evolving needs of a diverse and discerning global audience.

2. Objective of the study :

- To study the idea of E-commerce.
- To research this trends of E-commerce in Republic of India.
- To study the varied challenges faced by E-business players in Republic of India.
- To check the prospects of E-commerce in Republic of India.

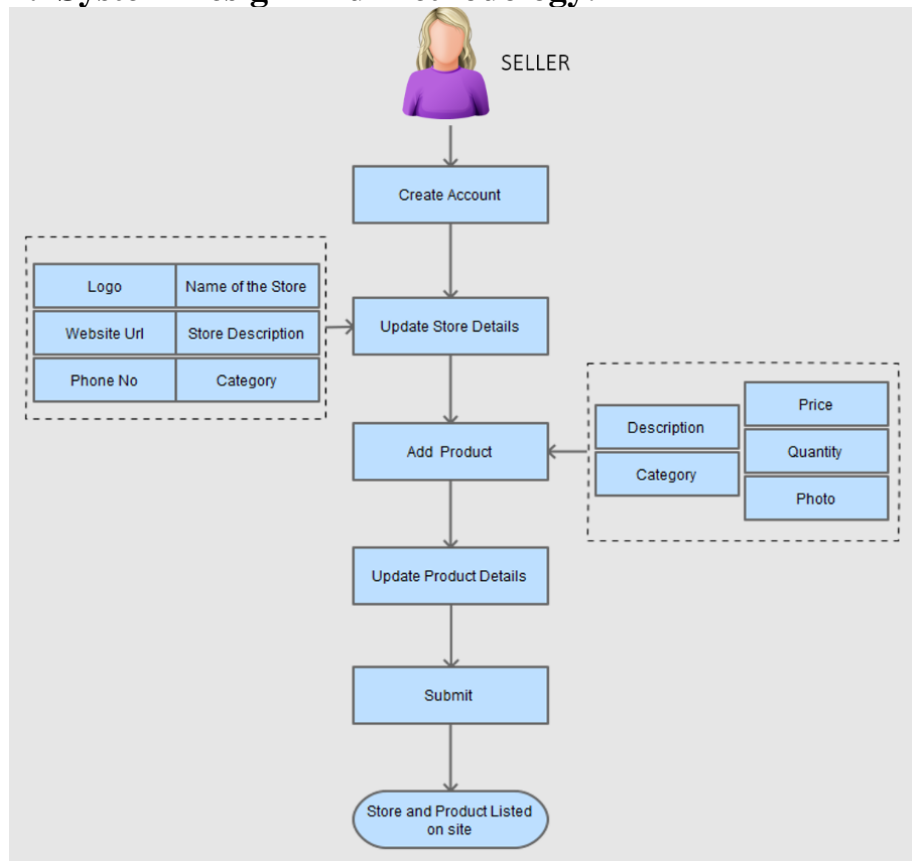
3. Literature Survey :

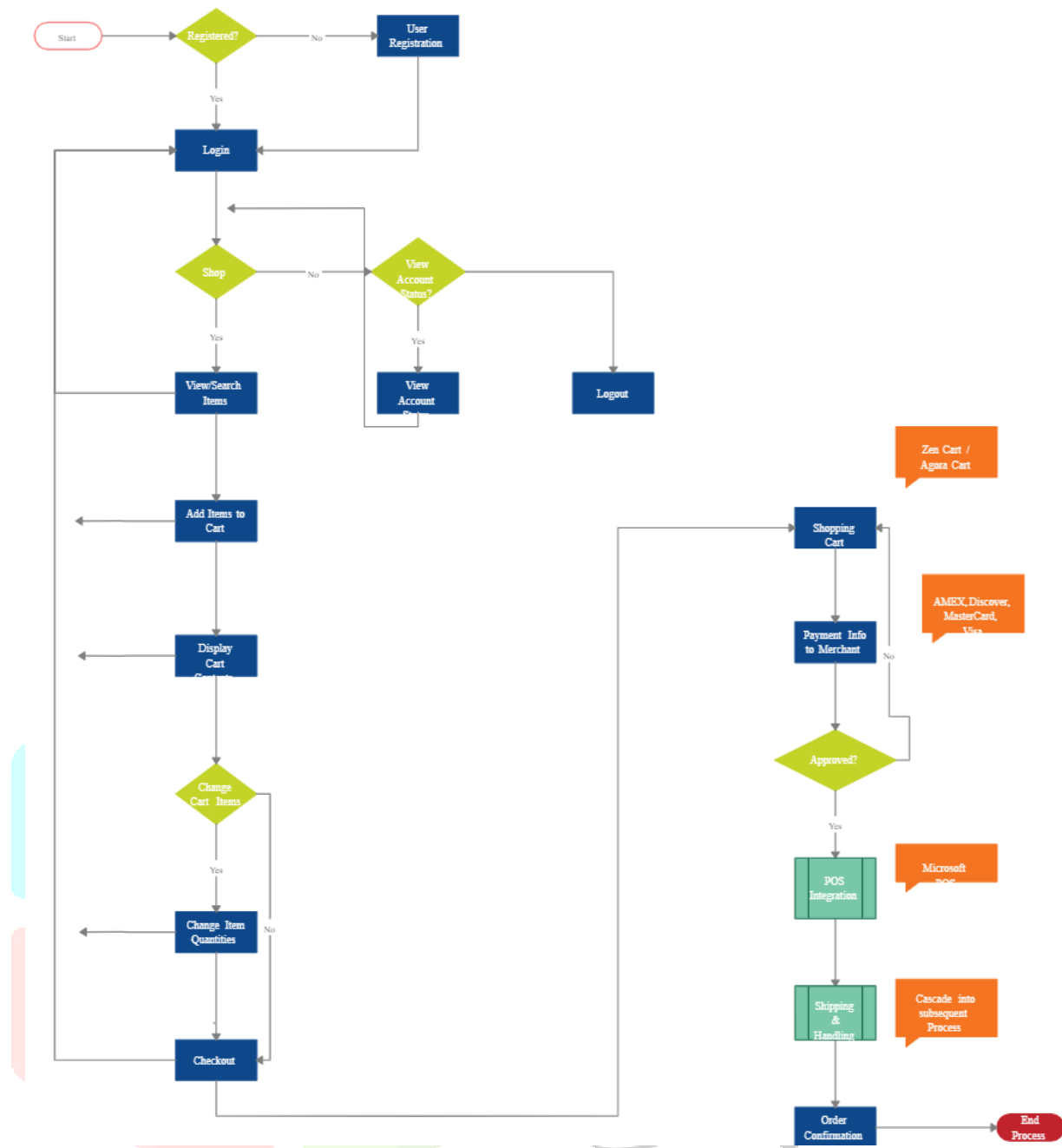
- I. Dr. Anukrati Sharma (2013) In the article titled "A study on E-commerce and Online Shopping: Issues and Influences," Dr. Anukrati Sharma explores recent trends, influences, and customer preferences in e-commerce and online shopping. The study focuses on understanding the decision-making process of online shoppers, particularly those aged 21-30 years. It emphasizes the importance of strategic and planned website design for enhancing the online shopping experience and offers suggestions for improving online shopping websites.
- II. Abhijit Mitra (2013) Abhijit Mitra's article, "E-Commerce in India-A review," examines the current status, facilitators, and trends of e-commerce in India while also identifying barriers to its growth. The study notes a significant increase in the number of companies adopting e-commerce in recent years. Additionally, it highlights the transition of major Indian portal sites towards e-commerce as opposed to relying solely on advertising revenue.
- III. Nisha Chanana and Sangeeta Goele (2012) In their article titled "Future of E-commerce in India," Nisha Chanana and Sangeeta Goele provide an overview of the future prospects of e-commerce in India and discuss potential growth segments. The study identifies key factors

essential for the future growth of e-commerce in India and predicts exponential growth in the coming years, particularly in the emerging market of India.

- IV. Sarbapriya Ray (2011) Sarbapriya Ray's article, "Emerging Trends of E-commerce in India: Some Crucial Issues Prospects and Challenges," offers insights into the evolution of e-commerce business in India. It outlines the chronological order and categories of e-commerce businesses, as well as the organizations involved. The study emphasizes the importance of government intervention to establish a legal framework for e-commerce, ensuring protection of rights such as privacy, intellectual property, fraud prevention, and consumer protection.
- V. Seth and Wadhawan (2016) assert that retailers must expand beyond their traditional boundaries to adapt to the new digital business landscape. In today's era, digitalization is not merely an option but a necessity for all retailers. This entails revising business models, investing in innovation, and keeping abreast of technological advancements.
- VI. Shahjee (2016) points out that e-commerce provides a platform for businesses to showcase their diverse range of products and facilitates consumers in quickly finding items of interest. However, e-commerce faces challenges related to infrastructure capabilities and lack of computer and internet literacy among consumers, particularly in rural areas.
- VII. Shettar (2016) emphasizes the importance of legal knowledge and understanding of risk management for businesses operating in the e-commerce sector. The growth of e-commerce in India has attracted global players, leading to increased opportunities for consumers and expanding their purchasing power.
- VIII. Mitra (2013) underscores the significance of e-commerce, noting it as the future of purchasing and shopping. Government support in establishing a legal framework is crucial for businesses to leverage new technologies and strategic policies for secure transactions and expansion.
- IX. Goele and Chanana (2012) highlight the potential growth of industries such as travel, electronics, hardware, and apparel through e-commerce. Factors contributing to this growth include mobile commerce (M-commerce), warranty replacements, diverse payment modes, efficient logistics and shipment options, adherence to product quality standards, and enhanced customer service.

4. System Design And Methodology:





- I. The database schema serves as the foundational structure for organizing and storing essential data within the e-commerce system. It comprises various tables, including Users, Products, Orders, and Payments, each tailored to specific purposes. These tables are interconnected through relationships, such as Users having multiple Orders and Orders containing multiple Order Items. Each table is defined by its unique attributes, capturing relevant details like user profiles, product descriptions, and order histories.
- II. In terms of coding structure, the e-commerce platform is divided into frontend and backend components. The frontend, developed using HTML, CSS, and JavaScript frameworks like React or Angular, focuses on creating an intuitive user interface (UI). This UI enables customers to interact with the platform seamlessly, browse products, add items to their cart, and proceed through the checkout process. On the other hand, the backend relies on server-side scripting languages such as Node.js, Python, or Java to handle business logic and interact with the database. It orchestrates tasks such as order processing, inventory management, and user authentication.
- III. APIs play a crucial role in facilitating communication between the frontend and backend components of the system. RESTful or GraphQL APIs are commonly used to enable seamless data exchange and interaction between different parts of the application, ensuring smooth operation and responsiveness.

- IV. User management functionalities are essential for providing a personalized and secure experience for platform users. This includes features such as user registration, authentication, and profile management. Additionally, role-based access control ensures that different types of users, including admins, sellers, and customers, have appropriate permissions and privileges within the system.
- V. Seller management functionalities empower sellers to manage their products, orders, and accounts effectively. This includes tasks such as seller registration and verification, product management (adding, editing, or deleting products), and order management (viewing orders, updating order statuses).
- VI. Admin management capabilities enable administrators to oversee and manage the entire e-commerce system. This includes functionalities such as user management, product management (including categories), order management (processing and canceling orders), and report generation (sales reports, inventory reports, etc.).
- VII. Customer management functionalities enable customers to browse and search products, add items to their cart, place orders, and view order history and status. Additionally, customers can rate and review products based on their experiences, providing valuable feedback to other users.
- VIII. Delivery management functionalities involve integrating with delivery services such as UPS or FedEx to track delivery status, generate shipping labels, and handle order fulfillment. Similarly, payment processing functionalities involve integrating with payment gateways like Stripe or PayPal to facilitate secure payment transactions, including handling refunds and disputes.
- IX. Finally, order management functionalities encompass tasks such as order processing, fulfillment (packing and shipping), and order tracking and status updates for customers. This ensures that orders are processed efficiently and delivered to customers in a timely manner, enhancing their overall shopping experience.

5. E commerce in india –

India's e-commerce market has been on a phenomenal ride. From 2019 to 2023, E-commerce sales witnessed a dramatic increase, with estimates suggesting it reached a staggering \$99 billion in 2024. This phenomenal growth can be attributed to several factors. Firstly, there's been a continuous surge in internet users, with millions added to the online community every year. For instance, in 2019, there might have been around 700 million users, but by 2023, that number could have easily surpassed 900 million. This expanding user base translates to a larger potential customer pool for e-commerce businesses.

Secondly, India's GDP has been steadily climbing, indicating a growing economy. This economic strength empowers consumers, giving them more disposable income to spend online. Increased purchasing power, coupled with the convenience and variety offered by e-commerce platforms, fuels the growth of online retail sales.

Finally, retail sales within the e-commerce market have mirrored the overall trend. While exact figures may vary depending on the source, it's safe to say that the value of retail E-commerce sales in India has grown substantially over the past five years. This growth highlights the increasing importance of e-commerce within the broader Indian retail sector. In simpler terms, a larger and larger portion of India's retail business is happening online.

This combination of factors - rising internet users, a growing GDP, and booming retail sales - has propelled India's e-commerce market to new heights, making it a significant contributor to the Indian economy.

Types of ecommerce

- I. **Business to Business (B2B):** B2B e-commerce involves transactions between two organizations, encompassing purchasing, procurement, inventory management, and more. Companies like Chemdex, Fastparts, and Free Markets pioneered B2B e-commerce platforms, facilitating streamlined business interactions and transactions.
- II. **Business to Consumer (B2C):** B2C e-commerce entails exchanges between businesses and individual consumers. This model has gained significant momentum with the advent of e-commerce platforms like Amazon.com, Yahoo.com, and Schwab.com, where consumers can directly purchase products and services from manufacturers or retailers.
- III. **Consumer to Consumer (C2C):** C2C e-commerce involves transactions between individual consumers, often facilitated by online platforms that connect buyers and sellers. Examples include online marketplaces like eBay, where individuals can buy and sell goods and services to one another.
- IV. **Consumer to Business (C2B):** In the C2B model, consumers offer products or services to businesses, creating value for the latter. This model is exemplified by platforms where consumers provide feedback, product reviews, and even product development ideas, which businesses leverage for marketing and product enhancement purposes.
- V. **Business to Business to Consumer (B2B2C):** B2B2C e-commerce involves an intermediary business facilitating transactions between the primary business and end consumers. This model optimizes the reach and accessibility of products and services to consumers while reducing costs associated with intermediaries. Flipkart, for instance, acts as a platform where consumers can purchase a wide range of products, spanning electronics, apparel, books, and music CDs, among others.

6. The growth of e-commerce –

- I. Firstly, online retailers are increasingly leveraging technology to enhance customer experiences and foster brand loyalty. By employing analytics derived from big data, retailers can develop personalized strategies tailored to individual customer preferences, thereby making customers feel special and valued.
- II. Cash on Delivery (CoD) has emerged as a dominant payment method in India, accounting for up to 60 percent of transactions. This reflects the importance of offering flexible payment options to cater to diverse consumer preferences and enhance accessibility.
- III. The widespread adoption of smartphones has enabled businesses to gather large amounts of data on consumer behavior, facilitating targeted marketing and advertising efforts. Moreover, product and service feedback shared via social media channels has a significant impact on shaping consumer perceptions and influencing purchasing decisions.
- IV. To build long-lasting relationships with customers, it is imperative for e-commerce sites to prioritize high-quality, SEO-friendly content. This not only improves search engine visibility but also enhances the overall user experience, leading to increased profit margins.
- V. The provision of 24-hour chat assistance has revolutionized the online shopping experience by offering instant guidance and support to customers. This has raised the bar for customer service standards and contributed to higher levels of customer satisfaction.
- VI. Additionally, mobile advertising has emerged as a potent tool for reaching and engaging with online shoppers. As consumers increasingly use mobile devices for browsing and shopping, brands are leveraging mobile advertising channels to deliver targeted messages and promotions, thereby driving higher conversion rates and sales volumes.

VII. Overall, these trends underscore the transformative impact of technology and consumer behavior on the growth trajectory of e-commerce in India, paving the way for continued expansion and innovation in the online retail sector.

7. E-Commerce Trends Leading The Way -

- I. AR enhances the reality of online shopping: Augmented Reality (AR) technology is revolutionizing online shopping by allowing customers to visualize products in their real-world environment before making a purchase decision, enhancing their shopping experience and reducing returns.
- II. There will be a growing volume of voice search: With the increasing popularity of voice-activated devices like smart speakers, voice search is becoming more prevalent in e-commerce, requiring businesses to optimize their websites for voice-based queries to stay competitive.
- III. AI helps shops learn about shoppers: Artificial Intelligence (AI) enables e-commerce businesses to analyze vast amounts of customer data to understand shopping behaviors, preferences, and trends, allowing them to tailor marketing strategies and product recommendations for individual shoppers.
- IV. On-site personalization uses those insights to create individualized experiences: Leveraging insights from AI and big data, e-commerce websites are implementing on-site personalization features to deliver customized shopping experiences tailored to each visitor's interests and preferences, thereby increasing engagement and conversion rates.
- V. Big data plays a big part in creating personalized experiences: Big Data analytics enable e-commerce businesses to gather and analyze vast amounts of customer data to gain valuable insights into shopping behaviors, enabling them to offer personalized product recommendations, targeted marketing campaigns, and tailored promotions.
- VI. Chatbots improve the shopping experience: Chatbots are increasingly being used by e-commerce businesses to provide instant customer support, answer queries, and assist with product selection, enhancing the overall shopping experience and increasing customer satisfaction.
- VII. Mobile shopping is still on the move: With the continued proliferation of smartphones and mobile devices, mobile shopping continues to grow, prompting e-commerce businesses to optimize their websites and checkout processes for mobile users to capitalize on this trend.
- VIII. More ways to pay: E-commerce platforms are offering a wider variety of payment options, including digital wallets, buy now pay later services, and cryptocurrencies, to cater to diverse customer preferences and increase convenience.
- IX. Headless and API-driven e-commerce allow continued innovation: Headless e-commerce architecture and API-driven platforms enable businesses to decouple their front-end and back-end systems, allowing for greater flexibility, scalability, and innovation in delivering customized shopping experiences across various channels.
- X. Customers respond to video: Video content is increasingly being used by e-commerce businesses to showcase products, demonstrate features, and engage customers, as it is more visually compelling and immersive, leading to higher engagement and conversion rates.

- XI. Subscriptions keep customers coming back: Subscription-based models are gaining popularity in e-commerce, offering customers convenience, cost savings, and personalized experiences, while providing businesses with recurring revenue streams and improved customer retention.
- XII. Sustainability is becoming more important: With growing awareness of environmental issues, consumers are increasingly prioritizing sustainability in their purchasing decisions, leading e-commerce businesses to adopt eco-friendly practices, offer sustainable products, and communicate their commitment to corporate social responsibility.
- XIII. Businesses should optimize digital strategy for conversion: E-commerce businesses are focusing on optimizing their digital marketing strategies, including SEO, social media, and email marketing, to drive traffic, increase conversion rates, and maximize ROI.
- XIV. B2B is growing...and changing: Business-to-Business (B2B) e-commerce is experiencing rapid growth and transformation, with businesses increasingly adopting digital platforms for procurement, sales, and supply chain management, driving innovation and efficiency in the B2B sector.

8. Challenges and Opportunities –

- I. The growth of e-commerce in India presents both challenges and opportunities for businesses operating in this rapidly expanding market. While the potential for growth is immense, several key challenges need to be addressed to fully capitalize on the opportunities presented by the Indian e-commerce landscape.
- II. One significant challenge faced by e-commerce firms in India is the high rate of merchandise returns by customers. Many first-time buyers in India have yet to establish clear expectations for online shopping experiences, leading to instances of buyer's remorse upon product delivery. This trend of returns is costly for e-commerce players, particularly due to the complexities of reverse logistics, which are further compounded in cross-border e-commerce scenarios.
- III. Another challenge is the prevalence of cash on delivery as the preferred payment mode among Indian consumers. This preference stems from low credit card penetration and a lack of trust in online transactions. Manual cash collection poses logistical challenges and increased risks for e-commerce companies, impacting operational efficiency and profitability.
- IV. Additionally, Indian payment gateways experience a high failure rate compared to global standards, further hindering the smooth flow of transactions for e-commerce businesses. This issue results in lost business opportunities as customers may not reattempt payments after a failed transaction, highlighting the importance of reliable payment infrastructure in facilitating seamless online transactions.
- V. Addressing last-mile delivery challenges is another hurdle for e-commerce logistics in India. The lack of standardization in postal addresses and the presence of thousands of inaccessible towns pose significant logistical obstacles for e-commerce companies. While major urban centers typically have robust logistics infrastructure, reaching customers in smaller towns remains a challenge, particularly in the context of cash-on-delivery transactions.

9. Future of E-Commerce in India –

- I. The future of e-commerce in India holds immense potential for growth and innovation, driven by several key factors and emerging trends. With the country's large population, increasing internet penetration, and rising disposable income, the e-commerce market is poised for significant expansion. Innovations in technology and continuous advancements in digital solutions are expected to shape the future landscape of online business in India.

- II. One of the key drivers of future e-commerce growth is the innovation in payment methods. The widespread adoption of plastic money, digital wallets, and the introduction of Unified Payment Interface (UPI) are revolutionizing the payment landscape, making transactions more seamless and secure. These innovations have the potential to make cashless transactions, including cash on delivery, more efficient and convenient for consumers.
- III. Delivery models are also evolving to address challenges such as traffic congestion in India's metropolitan areas. E-commerce and logistics providers are exploring innovative delivery methods such as drone delivery, leveraging nearby kirana stores for order fulfillment, and crowd-sourced delivery models. These initiatives aim to enhance the speed and efficiency of last-mile delivery, ensuring timely and convenient service for customers.
- IV. Artificial intelligence (AI) and drone technology are poised to transform the e-commerce industry, particularly in supply chain logistics and customer experience. AI-driven solutions can optimize supply chain management and enable personalized shopping experiences for users. Similarly, drone delivery services like Amazon Prime Air are revolutionizing last-mile delivery, ensuring swift and efficient order fulfillment, especially during peak seasons.
- V. The mobile-centric approach is another significant trend shaping the future of e-commerce in India. With a growing number of internet users accessing the web through mobile devices, mobile applications are becoming essential tools for e-tailers to reach a broader customer base, including those in rural and remote areas. Mobile apps offer customers convenience, accessibility, and personalized shopping experiences, driving higher engagement and conversion rates.
- VI. Digital advertising and search engine optimization (SEO) are also expected to play crucial roles in the future of e-commerce. Digital ads offer flexibility, customization, and interactivity, enabling e-commerce businesses to target specific audiences effectively. SEO strategies help e-tailers improve their online visibility and attract motivated buyers to their websites, enhancing their competitiveness in the digital marketplace.

10. Results and conclusion –

In conclusion, the future of e-commerce in India holds immense promise, driven by factors such as increased internet connectivity, smartphone penetration, and evolving consumer behaviour. However, to fully realize this potential, industry stakeholders must collaborate to address regulatory challenges, enhance payment infrastructure, and improve logistics and trust factors. Moreover, the transformative trends of m-commerce, social commerce, and AI-driven technologies are set to reshape the industry landscape. Embracing these trends while promoting sustainability and ethical practices can unlock new opportunities for growth and innovation. As we navigate the digital revolution, initiatives like the proposed e-commerce platform for cultural heritage products stand out as symbols of bridging tradition with modernity, catering to the growing demand for authentic and ethically sourced treasures. By fostering a deeper appreciation for cultural heritage and promoting global accessibility, such initiatives can contribute significantly to preserving our rich cultural tapestry for generations to come.

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