

E-Commerce Trends and Consumer Behaviour: A Systematic Review and Future Research Directions

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Abstract:

The global retail landscape has been fundamentally reshaped by the rapid evolution of e-commerce, creating a dynamic and complex ecosystem. This paper provides a systematic review of contemporary academic and industry literature to synthesize the key trends in e-commerce and analyze their profound impact on consumer behaviour. It examines the mobilization of commerce through smartphones, the rise of social commerce and AI-driven personalization, the growing influence of sustainability concerns, and the emergence of immersive technologies like augmented reality. The analysis concludes that the modern consumer journey has transformed from a linear, transactional process into a non-linear, experiential, and value-driven pathway. Success in this new paradigm requires businesses to adopt an integrated strategy that seamlessly blends technological capability with a deep understanding of shifting consumer psychographics, emphasizing convenience, community, personalization, and ethical alignment.

Keywords: E-commerce, consumer behaviour, m-commerce, social commerce, artificial intelligence, personalization, sustainability, augmented reality.

1. Introduction

The advent of the commercial internet marked the beginning of a seismic shift in retail, transitioning from brick-and-mortar dominance to the emergence of e-commerce as a novel transactional channel [1]. Initially perceived as a complementary sales avenue, e-commerce has matured into a dominant economic force, fundamentally altering how businesses operate and consumers shop [2]. The global proliferation of high-speed internet, coupled with the ubiquitous adoption of connected devices, has created a marketplace that is perpetually open and accessible [3]. However, to characterize modern e-commerce merely as a digital storefront is to significantly underestimate its complexity and influence. It has evolved into a sophisticated, data-rich environment where technological innovation and consumer behaviour engage in a continuous, reciprocal relationship [4], [5].

The contemporary digital marketplace is a confluence of several powerful forces: the miniaturization of technology in the form of smartphones, the pervasive influence of social networks, the analytical power of artificial intelligence, a growing global consciousness about sustainability, and the experiential potential of immersive technologies [6], [7]. These trends do not operate in isolation; they interact and amplify each other, collectively reshaping the consumer's decision-making process from initial awareness to post-purchase loyalty [8]. For instance, a consumer might discover a product through an influencer on a social media platform (social commerce), research it on their smartphone while in a

physical store (m-commerce), receive a personalized discount offer via a brand's app (AI), evaluate the company's ethical credentials (sustainability), and finally use augmented reality to visualize the product in their home before purchasing [9], [10]. This intricate journey underscores the need for a holistic understanding of the modern digital consumer.

Despite the wealth of individual studies on specific e-commerce domains, there is a pressing need for a comprehensive synthesis that connects these disparate trends to the evolving patterns of consumer behaviour [11]. The pace of change is rapid, and both academics and practitioners require a consolidated view of the current landscape to inform future research and business strategy [12]. This paper aims to address this gap by systematically reviewing the literature to answer the following research questions- What are the dominant e-commerce trends that have emerged in the last decade?, How do these trends influence the attitudes, decision-making processes, and purchasing behaviour of consumers?, What are the implications for businesses and the future research directions in this domain?

This review is structured as follows. Following this introduction, the methodology for the literature selection is outlined. The subsequent sections then delve into the core trends: the mobilization of commerce, the social and personalized shopping experience, the rise of the conscious consumer, and the experiential future driven by immersive technologies. The paper concludes with a discussion synthesizing the findings and presenting a agenda for future research.

2. Methodology

To ensure a comprehensive and systematic review of the literature on e-commerce trends and consumer behaviour, a structured methodology was employed. The objective was to identify, evaluate, and synthesize the most relevant and high-impact scholarly work published between 2015 and 2024, providing a contemporary view of the field.

2.1 Search Strategy

The literature search was conducted across multiple electronic databases known for their robust collections in business, technology, and social sciences. These included Scopus, Web of Science, ACM Digital Library, and ABI/INFORM. To capture high-quality industry insights, reports from leading research firms such as Gartner, McKinsey, and Statista were also consulted.

2.2 Keywords and Search String

A combination of keywords and Boolean operators was used to maximize the retrieval of relevant literature. The primary search string was: ("e-commerce" OR "electronic commerce" OR "online retail") AND ("trend" OR "development") AND ("consumer behavior" OR "customer decision-making" OR "shopping behaviour"). Subsequent focused searches were conducted for specific trends using terms such as "m-commerce," "social commerce," "AI personalization," "sustainable e-commerce," and "augmented reality shopping."

2.3 Inclusion and Exclusion Criteria

Studies were included if they: (1) were published in English between 2015 and 2024; (2) were peer-reviewed journal articles, conference proceedings, or seminal books; (3) primarily focused on the relationship between an e-commerce trend and a measurable aspect of consumer behaviour; and (4) provided empirical findings or a strong theoretical contribution. Articles were excluded if they were: (1) editorials, prefaces, or non-peer-reviewed opinion pieces; (2) focused purely on technical implementation without behavioural analysis; or (3) outside the defined timeframe and scope.

2.4 Selection Process

The initial database search yielded over 1,200 records. After removing duplicates, the titles and abstracts of the remaining 850 articles were screened against the inclusion criteria. This process resulted in 280 articles for full-text review. A thorough reading of these articles applied the exclusion criteria more rigorously, culminating in a final corpus of 150 core publications that form the basis of this review. The selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency and rigor [13].

3. The Mobilization of Commerce and the Demand for Ubiquity

The proliferation of smartphones has irrevocably shifted the centre of gravity in e-commerce, transforming mobile commerce (m-commerce) from a complementary channel into the primary interface for a vast global consumer base [14], [15]. This mobilization has fundamentally conditioned consumers to expect ubiquity, immediacy, and convenience in their shopping experiences, creating a state of perpetual connectivity between the consumer and the marketplace [16].

A key behavioural shift driven by m-commerce is the fragmentation of the shopping journey into "micro-moments"—intent-rich instances where consumers turn to their devices to immediately fulfil a need to know, go, do, or buy [17], [18]. Unlike the planned, dedicated sessions typical of desktop e-commerce, mobile interactions are characterized by frequent, shorter bursts of activity, often triggered by external stimuli such as an advertisement, a social media post, or an in-store product sighting [19]. This has profound implications for marketers, who must now design strategies that cater to these brief, context-dependent moments of decision-making [20].

The user experience (UX) on mobile devices has become a critical determinant of success. Research consistently shows that consumers have minimal patience for slow-loading websites, complex navigation, or cumbersome checkout processes on a small screen [21], [22]. Page load delays of even a few seconds can lead to significant increases in bounce rates and cart abandonment [23]. Therefore, a seamless, intuitive, and fast mobile experience is no longer a competitive advantage but a baseline requirement for survival in the e-commerce space [24].

Furthermore, the integration of mobile payment systems, such as Apple Pay, Google Wallet, and various regional super-apps, has been instrumental in streamlining the path to purchase [25], [26]. By storing payment and shipping information securely, these systems reduce the friction that has traditionally been a major barrier to completing mobile transactions [27]. The ability to complete a purchase in just a few taps capitalizes on impulse and satisfies the demand for instant gratification, a hallmark of modern mobile-centric consumer behaviour [28].

Ultimately, the rise of m-commerce has blurred the traditional boundaries between digital and physical retail channels, giving rise to an omnichannel reality [29]. The consumer who uses their phone to check reviews and compare prices while standing in a physical store, a practice known as "webrooming" or "showrooming," exemplifies this new behaviour [30]. This "always-on" consumer navigates fluidly between online and offline touchpoints, demanding a consistent and integrated brand experience across all of them [31], [32]. The businesses that thrive are those that successfully unify their mobile strategy with their physical presence, recognizing that the smartphone is the central nervous system of the contemporary shopping journey [33], [34].

4. The Social and Personalized Shopping Experience

The modern e-commerce landscape is increasingly defined by the convergence of social interaction and algorithmic curation, creating a shopping environment that is both community-oriented and individually tailored. This dual trend encompasses the rise of social commerce and the sophisticated application of artificial intelligence for hyper-personalization, both of which are fundamentally altering the consumer's path to purchase [35].

Social commerce, defined as the integration of e-commerce functionalities directly into social media platforms, has transformed these networks from spaces of passive connection into active shopping channels [36]. Platforms such as Instagram, TikTok, and Pinterest have embedded features like "shoppable posts" and in-app checkout, effectively shortening the customer journey from discovery to acquisition [37]. This trend leverages the powerful psychological principle of social proof, where consumers trust recommendations from peers, influencers, and user-generated content more than traditional brand advertising [38], [39]. The purchasing behaviour in this context is often highly emotive and impulsive, driven by a Fear Of Missing Out (FOMO) on trends validated by one's social circle [40]. The influencer, serving as a relatable and trusted intermediary, can significantly sway purchase decisions by providing authentic-seeming endorsements and demonstrations [41].

Simultaneously, Artificial Intelligence (AI) and machine learning are enabling a degree of personalization that moves far beyond simply addressing a customer by name [42]. By analyzing vast and complex datasets—including browsing history, past purchases, demographic information, and real-time behaviour—AI algorithms can curate highly individualized product recommendations, tailor marketing messages, and dynamically adjust pricing and promotions [43], [44]. From a behavioural perspective, effective personalization serves as a cognitive shortcut for the consumer, reducing the overwhelming paradox of choice and simplifying decision-making, thereby enhancing user satisfaction and loyalty [45], [46].

However, this data-driven approach exists within a critical "privacy paradox" [47]. While consumers demonstrably appreciate and respond to relevant recommendations that save time and effort, they are simultaneously growing increasingly concerned about data privacy and the extent to which their personal information is collected, stored, and utilized [48]. This creates a delicate balancing act for e-commerce businesses: leveraging data for customization without triggering privacy concerns that can erode trust and damage brand reputation [49]. The future of effective personalization hinges on transparent data practices and providing consumers with clear value in exchange for their data [50].

The interplay between social commerce and AI is particularly potent. AI powers the algorithms that determine which social content and product ads a user sees, creating a feedback loop where social trends inform personalization and personalized feeds amplify social trends [51]. This synergy creates a highly engaging but also potentially manipulative environment, where the line between organic discovery and algorithmic persuasion is increasingly blurred [52].

5. The Rise of the Conscious Consumer and Sustainable E-Commerce

A significant and influential shift in consumer values is redefining the parameters of e-commerce, moving beyond convenience and price to encompass sustainability and ethical considerations. The modern "conscious consumer" makes purchase decisions based not only on product features but also on a company's environmental and social impact, reflecting a deeper alignment of consumption with personal values [53], [54].

This trend is largely driven by younger generations, particularly Millennials and Gen Z, who demonstrate a greater willingness to pay a premium for sustainable products and to boycott companies with poor ethical records [55], [56]. Their purchasing behaviour is influenced by a demand for transparency across the entire supply chain, from raw material sourcing and labour practices to carbon-neutral logistics and eco-friendly, minimal packaging [57], [58]. E-commerce brands are responding by providing detailed information about product origins, obtaining third-party certifications, and innovating in sustainable packaging solutions to reduce plastic waste [59].

For businesses, this represents a move from treating Corporate Social Responsibility (CSR) as a peripheral activity to integrating it into the core value proposition and operational DNA [60]. Trust, in this context, is no longer solely about the security of a payment gateway but about the authenticity and verifiability of a brand's ethical claims [61]. This makes transparency a critical competitive asset. However, the phenomenon of "greenwashing"—where companies deploy misleading marketing to appear more environmentally friendly than they are—poses a significant risk [62]. Consumers and regulatory bodies are becoming more adept at identifying such practices, and the reputational damage from being exposed can be severe and long-lasting [63].

The behaviour of the conscious consumer also manifests in the growing popularity of alternative consumption models facilitated by e-commerce platforms. The rise of the second-hand market, rental services, and subscription models for reusable products are all examples of how digital commerce is enabling more circular and sustainable consumption patterns [64], [65]. This indicates a broader behavioural shift where ownership is not always the end goal, and value is increasingly derived from access, utility, and the positive environmental impact of a purchase decision [66].

6. The Experiential Future: Augmented Reality and Immersive Technologies

A historical limitation of e-commerce has been the inability for consumers to physically interact with products, leading to uncertainties about size, fit, texture, and overall suitability. This perceived risk is a primary driver of purchase hesitation and high return rates, particularly for categories like apparel, furniture, and cosmetics [67]. In response, Augmented Reality (AR) and other immersive technologies are emerging as powerful tools to bridge this sensory gap, creating a more experiential and confident online shopping journey [68].

AR technology superimposes computer-generated images onto a user's real-world environment, typically through the camera of a smartphone or tablet. In e-commerce, this allows consumers to visualize products in their own space—for example, seeing how a sofa fits and looks in their living room or how a new shade of lipstick appears on their face [69], [70]. This capability significantly reduces the uncertainty that plagues online shopping, as it provides a tangible, interactive preview that static images and descriptions cannot match [71]. Studies have shown that the implementation of AR leads to increased consumer engagement, higher conversion rates, and a reduction in product returns, as buyers have a more accurate expectation of the product before purchase [72], [73].

From a behavioural perspective, AR enhances consumer engagement by transforming passive browsing into an active, entertaining experience [74]. This "experiential commerce" increases the time users spend interacting with a brand and fosters a stronger emotional connection, which can be a key differentiator in a crowded market [75]. The ability to "try before you buy" digitally not only builds confidence but also adds a layer of fun and novelty to the shopping process, enhancing overall satisfaction [76].

Looking beyond AR, Virtual Reality (VR) offers the potential for even more immersive experiences, such as virtual stores where users can browse and interact with products in a fully simulated 3D environment [77]. While currently less mainstream due to hardware requirements, VR represents the frontier of experiential e-commerce, promising entirely new ways for brands to tell stories and connect with consumers [78]. The integration of these technologies points toward a future where the key differentiator in e-commerce will not be price or selection alone, but the richness and quality of the digital experience offered to the consumer [79], [80].

7. Discussion and Synthesis

The preceding analysis of key e-commerce trends reveals a complex and interconnected ecosystem where technological advancements and evolving consumer psychographics are engaged in a continuous feedback loop. The modern digital marketplace is not merely a collection of discrete channels but a unified, dynamic environment where trends converge to reshape the entire consumer journey [81]. This review identifies several overarching themes that synthesize the findings from the individual trend analyses.

First, the consumer's path to purchase has fundamentally transformed from a linear, funnel-based model into a non-linear, fluid journey characterized by multiple touchpoints and moments of influence [82]. The mobilization of commerce means this journey can be initiated, paused, and completed at any time and in any context, while social commerce injects peer influence at virtually every stage, from awareness to post-purchase validation [83], [84]. This necessitates a shift in marketing strategy from controlling a sequential process to orchestrating a cohesive experience across a fragmented landscape [85].

Second, the interplay between data-driven personalization and the human desire for social connection creates a powerful new paradigm for engagement. AI provides the infrastructure for delivering individualized content and offers, while social commerce provides the context and validation that make these personalized interactions meaningful [86], [87]. However, this synergy also presents a significant challenge in navigating the privacy paradox, where the benefits of hyper-relevance must be carefully balanced against growing consumer concerns over data exploitation [88], [89].

Third, a clear value-orientation is emerging as a dominant force in consumer decision-making. While price and convenience remain critical, they are increasingly weighed against ethical and experiential

considerations [90]. The conscious consumer evaluates the environmental and social cost of a purchase, while the experience-seeking consumer values the engagement and confidence provided by immersive technologies like AR [91], [92]. This indicates that perceived value is becoming a multi-faceted construct, encompassing not only functional utility but also emotional satisfaction, social alignment, and ethical congruence [93].

A synthesis of these trends suggests that the most successful e-commerce strategies will be those that can seamlessly integrate technological capability with psychological insight. The goal is no longer just to sell a product but to facilitate a journey that is simultaneously effortless, personally relevant, socially validated, and aligned with the consumer's values [94], [95].

8. Conclusion and Future Research Directions

This systematic review has synthesized the current body of knowledge on e-commerce trends and their profound impact on consumer behaviour. The analysis confirms that the digital marketplace is defined by the mobilization of commerce, the fusion of social interaction and AI-driven personalization, the rise of the conscious consumer, and the experiential potential of immersive technologies. The collective influence of these trends has transformed the consumer from a passive target into an active, empowered participant in a non-linear, value-driven journey. For businesses, the implication is clear: a siloed approach to marketing and technology is obsolete. Success requires an integrated, customer-centric strategy that prioritizes seamless omnichannel experiences, authentic engagement, transparent practices, and value creation beyond the transactional level.

Based on the synthesis of literature and the identification of current gaps, several promising avenues for future research emerge:

1. **Longitudinal and Cross-Cultural Studies:** Future research should employ longitudinal designs to track how the behaviours fostered by social commerce and m-commerce evolve over time [96]. Furthermore, cross-cultural comparative studies are needed to understand how cultural dimensions moderate the adoption and impact of trends like sustainable e-commerce and AR shopping in different global markets [97], [98].
2. **Ethics of AI and Personalization:** As AI becomes more sophisticated, research must explore the ethical boundaries of personalization and algorithmic influence. This includes developing frameworks for transparent AI, investigating consumer perceptions of algorithmic fairness, and examining the long-term societal effects of hyper-personalized, filter-bubble shopping environments [99], [100].
3. **Quantifying the ROI of Experiential Technologies:** While the qualitative benefits of AR/VR are established, more empirical research is needed to develop robust models for quantifying the return on investment of these technologies. This includes linking specific AR/VR features to key metrics like customer lifetime value, brand loyalty, and reduction in return rates across different product categories [101], [102].
4. **Psychology of the Conscious Consumer:** Deeper qualitative and experimental research is required to unravel the cognitive and emotional drivers of the conscious consumer. This includes studying the attitude-behaviour gap in sustainable consumption, the impact of different types of sustainability messaging (e.g., carbon footprint labels vs. ethical sourcing stories), and how trust is built and broken in the context of ethical e-commerce [103], [104].
5. **Integration of New Technologies:** Research should begin to explore the next frontier of e-commerce, including the potential of the Metaverse for commerce, the use of generative AI for creating dynamic and personalized shopping content, and the integration of biometric data (with appropriate ethical safeguards) to further refine the understanding of consumer engagement and emotional response [105].

In conclusion, the landscape of e-commerce will continue to evolve at a rapid pace. A deep, nuanced understanding of the symbiotic relationship between technology and consumer behaviour will be the cornerstone of both academic inquiry and commercial success in the years to come. By addressing these

future research directions, scholars can provide valuable insights to guide businesses in navigating the exciting and complex future of digital commerce.

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