

A CONCEPTUAL REVIEW OF E-COMMERCE COMPONENTS AND CUSTOMER SATISFACTION: INTEGRATING UTAUT AND TRA

Ugwuegbu, Patrick Chigoziri¹, Adeyeye, Mercy Modupe (Phd)², Ibrahim, Gaddafi (Phd)³ & Oyibe, Angela Angela⁴

^{1,2,3,4}National Open University of Nigeria

Correspondent's Email: patrick.ugwuegbu@yahoo.com/+2348109043615

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ABSTRACT

The rapid expansion of e-commerce has heightened the need to understand the technological and behavioural factors that shape customer satisfaction. Although prior studies have examined e-commerce adoption and usage, limited conceptual attention has been given to how core system components, particularly compatibility and easy checkout, jointly relate to customer satisfaction through established behavioural and technology acceptance theories. Grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Theory of Reasoned Action (TRA), this paper conceptually proposes a theoretically integrated model that explains how compatibility and easy checkout may influence users' perceptions, attitudes, and behavioural intentions, which may ultimately relate to customer satisfaction. Drawing on a systematic synthesis of extant literature, the paper argues that compatibility is associated with facilitating conditions and perceived system fit, while easy checkout is linked to effort expectancy and favourable user beliefs, which together conceptually reinforce positive post-adoption evaluations. The study extends UTAUT and TRA conceptually by positioning customer satisfaction as a post-adoption outcome and by reframing compatibility and easy checkout as central explanatory constructs rather than peripheral system features. Finally, the model provides a conceptual foundation for understanding e-commerce satisfaction in contexts such as Nigeria, where online adoption is rapidly increasing.

Keywords: Compatibility, Customer Satisfaction, Easy Checkout, E-commerce.

Introduction

The rapid expansion of e-commerce has transformed how businesses create and deliver value, making digital platforms central to customer-firm interactions and competitive differentiation. As online markets mature, firms are no longer distinguished merely by their web presence but by the quality of user experience embedded in platform design and transactional processes (Laudon & Traver, 2021; Turban et al., 2021). In this environment, customer satisfaction has emerged as a critical post-adoption outcome influencing repeat purchases, loyalty, and long-term performance (Anderson & Srinivasan, 2003; Bhattacharjee, 2001). Central to this experience are core system attributes that shape how users interact with e-commerce platforms during key decision and transaction stages. Among these attributes, compatibility, defined as the degree to which an e-commerce system aligns with users' existing technologies, preferences, and usage patterns, reduces friction and enhances perceived fit, thereby fostering positive evaluations (Rogers, 2003; Venkatesh et al., 2003). Similarly, easy checkout, which reflects the simplicity and efficiency of completing online transactions, minimizes cognitive effort and perceived complexity, strengthening effort expectancy and favourable user attitudes toward the platform (Gefen et al., 2003; Davis, 1989). When these components function effectively, they streamline the purchase process and enhance perceived convenience, which is a key driver of customer satisfaction in digital commerce environments (Kim et al., 2009; Rita et al., 2019). Consequently, understanding how compatibility and easy checkout shape user experience is essential for explaining variations in customer satisfaction across e-commerce platforms. Within the rapidly changing environment that characterizes the intersection of e-commerce and digital payment systems, consumer behaviour emerges as a central driver influencing innovation and development. As digital adoption accelerates, the way consumers interact with online retail and financial services is undergoing a fundamental transformation. Preferences for speed, tailored experiences, and immediate service have become powerful motivators behind the continued advancement of innovative payment technologies (Broby, 2021).

Empirical studies on e-commerce have predominantly emphasized factors such as trust, security, perceived usefulness, and service quality as determinants of customer satisfaction and continued usage. For example, studies by Venkatesh et al. (2003) and Pavlou (2003) highlighted the roles of performance expectancy, effort expectancy, and trust in shaping technology acceptance and online purchase intentions. Similarly, research by Gefen et al. (2003) and Kim et al. (2009) emphasized trust, perceived usefulness, and service quality as primary predictors of customer satisfaction in online environments. More recent studies, such as Rita et al. (2019), have focused on e-service quality dimensions, including responsiveness and reliability, while overlooking foundational system attributes that enable seamless interaction.

Despite these contributions, prior research has largely treated compatibility and checkout processes as technical features embedded within broader usability constructs rather than as independent explanatory variables. Consequently, limited conceptual attention has been devoted to how compatibility with users' existing technologies and the simplicity of checkout processes jointly shape post-adoption evaluations such as customer satisfaction. The purpose of this study is to conceptually examine the relationship between e-commerce components and customer satisfaction through the integration of the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Theory of Reasoned Action (TRA). In achieving this aim, the study pursues the following specific objectives:

- i. To conceptualize compatibility as an e-commerce component influencing customer satisfaction.
- ii. To examine the conceptual role of easy checkout in shaping customer satisfaction.

Thus, the following research questions raised include:

- i. How does compatibility, as an e-commerce component, conceptually influence customer satisfaction?
- ii. In what ways does easy checkout shape customer satisfaction in e-commerce environments?

Literature Review

This study's literature review is organized into two main sections: Conceptual Review and Theoretical Review. The review aims to provide a comprehensive understanding of existing knowledge and the theoretical foundations that guide this study's investigation of the relationship between e-commerce components and customer satisfaction

Conceptual Review

This section of the literature review provides a comprehensive analysis of the key concepts related to e-commerce, compatibility, easy checkout, and customer satisfaction.

The Concept of E-commerce

E-commerce, short for electronic commerce, refers to the buying and selling of goods and services over the internet (Laudon & Traver, 2021; Turban et al., 2021). This concept involves the use of digital platforms, such as websites, mobile apps, and social media, to facilitate commercial transactions (Chaffey & Smith, 2022; Kalakota & Whinston, 1997). E-commerce encompasses various aspects, including online shopping, digital payments, supply chain management, and customer relationship management (Kalakota & Whinston, 1997; Chopra & Meindl, 2019). These elements represent the foundational pillars of e-commerce and highlight how this digital business model has redefined traditional commercial activities. Central to this concept are functionalities such as online shopping, digital payments, and customer relationship management (CRM), which have redefined how businesses interact with stakeholders (Chopra & Meindl, 2019; Kalakota & Whinston, 1997). These components go beyond convenience; they are now part of the strategic backbone of many firms. Yet, their effectiveness is not guaranteed. Practical issues such as weak platform integration, security lapses, or customer skepticism can limit their value.

E-commerce, or electronic commerce, represents a transformative approach to conducting business transactions through digital platforms. This concept encompasses various transactional models, including Business-to-Consumer (B2C), Business-to-Business (B2B), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B). The B2C model is particularly dominant, enabling businesses to engage directly with consumers via platforms such as Amazon, Jumia, Shopify, eBay and Flipkart, while B2B facilitates wholesale trade and procurement among companies through platforms like Alibaba, TradeIndia, ThomasNet, and Made-in-China. Electronic commerce involves using information technology to boost sales, enhance business efficiency, create opportunities for new products and services, and improve customer satisfaction. Through its activities, each company communicates with many other entities: private or corporate clients, business partners, and suppliers. When communicating with each other, these entities exchange diverse types of information, such as product or service details, terms of transactions, and order confirmations. This exchange often includes negotiating terms, transmitting, and accepting orders, distributing press releases, and addressing complaints (Kalakota & Whinston, 1997; Chaffey & Smith, 2022). The flow of information is also carried out among these entities: managers and subordinates within a company, marketing specialists and vendors, or product managers. The rise in internet use has opened many new opportunities for businesses. Faster and easier communication, along with technological advancements, has empowered entrepreneurs to independently develop advertisements, online stores, and other innovative digital solutions (Chaffey & Smith, 2022; Brynjolfsson & McAfee, 2014). Moreover, the increasing number of

internet users has significantly amplified the volume and profitability of commerce and services conducted online (Laudon & Traver, 2021; UNCTAD, 2021).

Compatibility

Organizations must strategically adopt e-commerce solutions that support their operational requirements, ranging from self-hosted platforms such as WooCommerce and Magento to cloud-based solutions like Shopify and BigCommerce. Additionally, firms should evaluate technological options that align with their technical skills and preferences, including plugins, extensions, APIs, or SDKs. Compatibility with other critical tools and systems, such as accounting software, CRM, email marketing services, or inventory management systems, is essential for optimizing e-commerce performance (Sabherwal et al., 2018; LinkedIn, 2024). Prior research in information systems highlights that compatibility significantly influences technology adoption and effective utilization (Rogers, 2003; Tornatzky & Klein, 1982).

While compatibility primarily ensures internal operational efficiency, its effect on customer satisfaction is mediated through user experience and perceived service quality. A highly compatible system allows e-commerce platforms to function seamlessly with organizational processes, reducing technical disruptions and transaction errors. This technological coherence enhances the reliability, speed, and consistency of customer interactions, which in turn improves users' perceptions of platform quality, ease of use, and overall satisfaction (Parasuraman et al., 2005; DeLone & McLean, 2003). For example, when platform features integrate smoothly with payment systems, inventory management, and CRM tools, customers experience faster checkout, accurate product information, and responsive service, reinforcing positive evaluations.

Compatibility also supports long-term adaptability and perceived value. As firms expand digital operations, introduce new services, or upgrade technologies, compatible systems facilitate smoother transitions with minimal disruption to customer-facing services. Research indicates that systems perceived as technologically aligned with users' expectations generate higher perceived usefulness and trust, which positively influence satisfaction and loyalty (Venkatesh et al., 2003; Petter et al., 2008). Consequently, compatibility does not directly "cause" satisfaction; rather, it enables superior user experiences and service quality, which mediate the relationship between internal system alignment and customer outcomes. By enhancing user experience, ensuring reliability, and maintaining consistent service delivery, compatibility becomes a strategic driver of customer satisfaction, loyalty, and long-term competitive advantage (Mittal et al., 2023; Sabherwal et al., 2018).

Easy Checkout Process

The checkout process is a critical stage in the online shopping journey, directly influencing customer satisfaction, purchase completion, and overall platform loyalty (Singh & Rana, 2023). Online payment gateways and streamlined checkout functionalities are central to reducing friction, simplifying transactions, and minimizing cart abandonment (Dwivedi et al., 2021; Rishabh, 2023). Key features that enhance the online checkout experience include saved payment information, autofill capabilities, and one-click payments. By securely storing customer payment details and automatically populating relevant fields, these features reduce cognitive effort and transaction time, allowing customers to complete purchases efficiently and conveniently (Chen, 2020; Laudon & Laudon, 2020).

This reduction in effort and transaction complexity enhances user experience, which serves as a key mediating mechanism between online checkout design and customer satisfaction. When customers perceive the checkout process as smooth, reliable, and convenient, they are more likely to experience positive evaluations of the platform and exhibit greater satisfaction (Gefen et

al., 2003; Kim et al., 2009). For instance, one-click payment options allow returning customers to complete transactions almost instantly, reinforcing perceived convenience and fostering positive post-purchase attitudes (Dwivedi et al., 2021). Similarly, the use of autofill and secure saved payment methods reduces the likelihood of errors and abandoned carts, further strengthening customer confidence and satisfaction (Rishabh, 2023; Singh & Rana, 2023).

Efficient online checkout systems also enhance perceived service quality, as customers experience timely, error-free, and seamless transactions. Research suggests that perceived ease of use and transaction convenience are positively associated with customer satisfaction and loyalty in e-commerce environments (Venkatesh et al., 2003; Rita et al., 2019). By integrating user-friendly checkout features, firms can not only improve conversion rates but also cultivate trust and positive perceptions, thereby reinforcing long-term engagement and retention (Wilson, 2016). In this way, easy checkout functions as a strategic driver of customer satisfaction, mediated through enhanced user experience, perceived convenience, and reliable transaction performance.

Customers' Satisfaction

Customer satisfaction has long been recognized as a key determinant of organizational success, influencing loyalty, repeat purchases, and market share (Mittal et al., 2023; Yalçinkaya & Çataldaş, 2025). In the context of e-commerce, satisfaction is shaped not only by product or service outcomes but also by the quality and usability of digital platforms through which customers interact with firms. Digital customer satisfaction, or e-satisfaction, reflects a user's cognitive and emotional evaluation of their online shopping experience, including perceptions of platform usability, transaction convenience, and service reliability (Santos, 2003; DeLone & McLean, 2003). E-commerce-specific frameworks, such as E-S-QUAL, emphasize that customers evaluate websites based on factors including system availability, ease of use, fulfillment, and security, which collectively influence perceived service quality and satisfaction (Parasuraman et al., 2005). Similarly, the DeLone & McLean Information Systems Success Model posits that system quality, information quality, and service quality drive user satisfaction and behavioural intentions in digital environments (DeLone & McLean, 2003; Petter et al., 2008). These models provide a theoretical basis for understanding how platform design and functionality mediate the relationship between e-commerce components and customer satisfaction.

In this study, customer satisfaction is conceptualized as the outcome of core platform attributes, particularly compatibility and easy checkout, mediated through user experience and perceived service quality. A platform that aligns with users' existing technologies and preferences (compatibility) ensures smooth system performance and reduces errors, enhancing perceived reliability and trust. Likewise, a simplified checkout process (easy checkout) reduces transaction effort, minimizes cognitive load, and fosters convenience. These system-level features contribute to positive user evaluations of platform quality, which translate into higher e-satisfaction and increased loyalty (Kim et al., 2009; Rita et al., 2019). Thus, in e-commerce contexts, customer satisfaction emerges as a function of both the technical and experiential quality of the platform, rather than solely product or service outcomes.

Theoretical Foundations

This study is grounded in established technology acceptance theories that explain how system characteristics influence user perceptions, attitudes, and satisfaction in e-commerce environments.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a widely applied framework for explaining technology acceptance and use. It posits that user behavior is influenced

by four core constructs: performance expectancy, effort expectancy, facilitating conditions, and social influence (Venkatesh et al., 2003). In e-commerce contexts, these constructs are critical not only for initial adoption but also for ongoing evaluations of platform performance. For instance, compatibility can be linked to facilitating conditions, as platforms that align with users' devices, operating systems, and payment infrastructures reduce technical barriers and enhance perceived system support. Likewise, easy checkout relates to effort expectancy, as simplified transaction processes reduce the cognitive and physical effort required to complete purchases (Venkatesh et al., 2003). Through these mechanisms, UTAUT emphasizes the role of system characteristics and technical enablers in shaping user behaviour and satisfaction.

Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) complements UTAUT by explaining behavior as a function of attitudes and behavioral intentions, which are shaped by underlying beliefs and subjective norms (Fishbein & Ajzen, 1975). In e-commerce, users form beliefs about platform attributes such as convenience, efficiency, and system fit. These beliefs influence attitudes toward the platform, which in turn affect evaluative outcomes, including customer satisfaction. TRA, therefore, emphasizes the cognitive and psychological processes through which perceptions of platform features translate into satisfaction. While UTAUT highlights the technological and system-related determinants of platform use, it provides limited insight into the attitudinal and belief-based processes that shape user satisfaction. Conversely, TRA focuses on how beliefs and attitudes drive evaluative outcomes but does not explicitly account for system characteristics that facilitate or constrain usage. By integrating UTAUT and TRA, this study leverages the complementary strengths of both models:

- i. UTAUT explains how platform attributes like compatibility and easy checkout enable use and reduce friction (systemic perspective).
- ii. TRA explains how these same attributes shape user beliefs, attitudes, and cognitive evaluations that lead to satisfaction (psychological perspective).

Together, the integrated framework provides a robust theoretical foundation for understanding the mechanisms through which technological characteristics influence customer satisfaction. Compatibility and easy checkout are therefore examined not only as technical enablers but also as factors shaping user cognition, attitudes, and post-adoption evaluations in the e-commerce context.

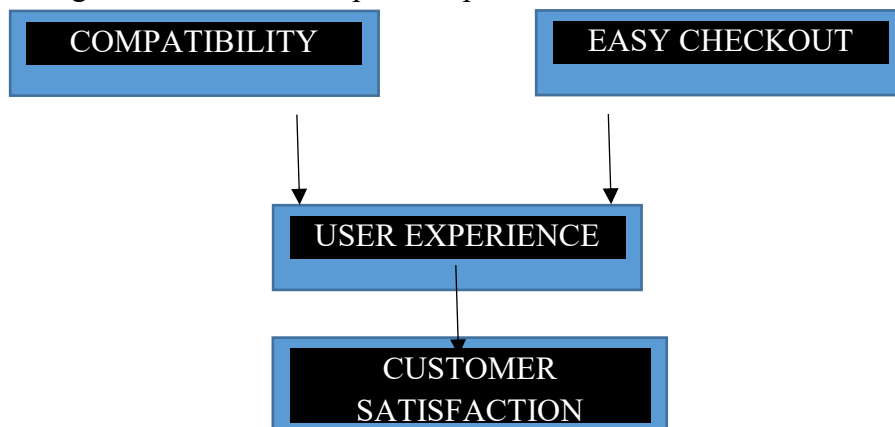


Fig 1: Conceptual Model

Source: Author, (2026)

Methodology

This study adopted a desk-based systematic literature review to examine the conceptual relationships between compatibility, easy checkout, and customer satisfaction in e-commerce. Guided by the theoretical perspectives of UTAUT and TRA, the review followed a structured protocol to ensure comprehensiveness, transparency, and replicability. Relevant literature was identified through systematic searches of academic databases, including Scopus, Web of Science, Google Scholar, and ScienceDirect, as well as authoritative books, conference proceedings, and reputable online reports. Search terms combined keywords and Boolean operators, including: “e-commerce components,” “compatibility,” “checkout ease,” “user experience,” “customer satisfaction,” “UTAUT,” and “TRA.” Studies were included if they addressed technological or system attributes in e-commerce, examined determinants of online customer satisfaction, or applied relevant theoretical frameworks such as UTAUT, TRA, or IS success models. Studies were excluded if they focused exclusively on physical retail, lacked conceptual or empirical insights relevant to e-commerce, or were non-English publications. Titles, abstracts, and full texts were screened for relevance, with duplicates removed, and eligible studies were systematically analyzed to identify patterns, theoretical linkages, and gaps in the literature. Special attention was given to how compatibility and easy checkout influence user experience, perceived service quality, and customer satisfaction, as conceptualized through the integrated UTAUT-TRA framework. By employing this systematic review approach, the study provides a robust conceptual synthesis linking technological platform attributes to customer satisfaction.

Conclusion

This paper conceptually examines the relationship between e-commerce components and customer satisfaction, grounded in the theoretical perspectives of the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Theory of Reasoned Action (TRA). The review indicates that platforms designed to align seamlessly with users’ devices, operating systems, and payment infrastructures (compatibility), alongside simplified and efficient transactional processes (easy checkout), are likely to enhance customer satisfaction by improving user experience and perceived service quality. Integrating UTAUT and TRA provides a robust framework for understanding how technological characteristics and user perceptions jointly shape satisfaction in digital environments. Conceptually, this study argues that e-commerce firms that prioritize system compatibility and user-friendly checkout processes can foster positive customer evaluations, strengthen loyalty, and support long-term competitive advantage.

Propositions

Based on the conceptual synthesis of literature, the following propositions are advanced:

- i. Platform compatibility proposition: It is theoretically argued that e-commerce platforms designed to align with widely used devices, operating systems, and payment infrastructures (compatibility) are likely to enhance users’ perceptions of system reliability and facilitating conditions, which in turn may strengthen customer confidence and satisfaction.
- ii. Easy checkout proposition: It is proposed that platforms providing simplified, efficient, and user-friendly checkout processes (easy checkout) can reduce perceived transaction effort and cognitive load, thereby potentially enhancing user evaluations and satisfaction.

Implications

Managerial Implications

- i. Strategic focus on platform attributes: Firms operating in Nigeria and similar emerging e-commerce markets may benefit from treating compatibility and easy checkout as strategic determinants of customer satisfaction rather than merely technical considerations. Designing

platforms that are accessible across devices, operating systems, and payment systems, and offering streamlined checkout processes, can conceptually improve perceived convenience and service quality, which are central to fostering positive customer experiences.

ii. Post-adoption user experience: By emphasizing user-friendly interfaces and frictionless transactions, managers can conceptually enhance post-adoption evaluations, strengthen loyalty, and potentially improve retention, even in contexts where digital infrastructure and consumer familiarity with e-commerce vary.

Theoretical Implications

This study extends the application of UTAUT and TRA beyond adoption to post-adoption outcomes, highlighting how technological attributes influence user beliefs, attitudes, and satisfaction. Specifically, compatibility is linked to facilitating conditions and system fit, while easy checkout aligns with effort expectancy and perceived convenience.

References

- Anderson, E. W., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Journal of Retailing*, 79(2), 123–138. [https://doi.org/10.1016/S0022-4359\(03\)00016-3](https://doi.org/10.1016/S0022-4359(03)00016-3)
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351–370. <https://doi.org/10.2307/3250921>
- Broby, D. (2021). Financial technology and the future of banking. *Financial Innovation*, 7, Article 47. <https://doi.org/10.1186/s40854-021-00264-y>
- Brown, M. (2023). Booths supermarkets to ditch self-checkouts in North of England stores. *The Guardian*.
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
- Chaffey, D., & Smith, P. R. (2022). *Digital marketing excellence: Planning, optimizing, and integrating online marketing* (6th ed.). Routledge.
- Chen, P., & Kim, S. (2023). The impact of digital transformation on innovation performance: The mediating role of innovation factors. *Heliyon*, 9(3), e13916. <https://doi.org/10.1016/j.heliyon.2023.e13916>
- Chen, Y., Wang, Y., Nevo, S., Jin, J., Wang, L., & Chow, W. S. (2014). IT capability and organizational performance: The roles of business process agility and environmental factors. *European Journal of Information Systems*, 23(3), 326–342. <https://doi.org/10.1057/ejis.2013.4>
- Cheng, T., & Shen, Y. (2025). Understanding customer switching behaviour: An empirical examination of mobile financial services. *Social Sciences & Humanities Open*, 11, Article 101270. <https://doi.org/10.1016/j.ssaho.2024.101270>
- Chopra, S., & Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson.
- Davenport, T. H., Guha, A., Grewal, D., & Bressgott, T. (2022). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 50(2), 267–285. <https://doi.org/10.1007/s11747-021-00782-7>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>

- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2021). Re-examining the unified theory of acceptance and use of technology (UTAUT) in the age of digital platforms: AI, VR, and e-commerce applications. *Information Systems Frontiers*, 23, 1415–1437. <https://doi.org/10.1007/s10796-020-10075-9>
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51–90. <https://doi.org/10.2307/30036519>
- Kalakota, R., & Whinston, A. B. (1997). *Electronic commerce: A manager's guide*. Addison-Wesley.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2009). Trust and satisfaction, two stepping stones for successful e-commerce relationships: A longitudinal exploration. *Information Systems Research*, 20(2), 237–257. <https://doi.org/10.1287/isre.1080.0188>
- Laudon, K. C., & Laudon, J. P. (2020). *E-commerce: Business, technology, society* (16th ed.). Pearson.
- Laudon, K. C., & Traver, C. G. (2021). *E-commerce 2021: Business, technology, society* (17th ed.). Pearson.
- LinkedIn. (2024). *How do you choose the right payment gateway for your e-commerce?* LinkedIn. <https://www.linkedin.com/advice/0/how-do-you-choose-right-payment-gateway-for-your-e-commerce>
- Mittal, V., Han, K., Frennea, C., Blut, M., Shaik, M., & Sridhar, S. (2023). Customer satisfaction, loyalty behaviours, and firm financial performance: what 40 years of research tells us. *Marketing Letters*, 34, 171–187.
- OECD. (2021). *The digital transformation of SMEs*. OECD Studies on SMEs and Entrepreneurship. OECD Publishing. <https://doi.org/10.1787/bdb9256a>
- Panditharathna, R., Liu, Y., de Macedo Bergamo, F. V., Appiah, D., Trim, P. R. J., & Lee, Y. I. (2024). How cyber security enhances trust and commitment to customer retention: The mediating role of robotic service quality. *Big Data and Cognitive Computing*, 8(11), 165. <https://doi.org/10.3390/bdcc8110165>
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233. <https://doi.org/10.1177/1094670505276687>

- Petter, S., DeLone, W., & McLean, E. (2008). Measuring information systems success: Models, dimensions, measures, and interrelationships. *European Journal of Information Systems*, 17(3), 236–263.
<https://doi.org/10.1057/ejis.2008.15>
- Rishabh. (2023). *Top 5 advantages of using an e-commerce payment gateway for seamless transactions*. <https://www.mapplinks.com/top-5-advantages-of-using-a-payment-gateway-ecommerce>
- Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Heliyon*, 5(10), e02690.
<https://doi.org/10.1016/j.heliyon.2019.e02690>
- Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). Free Press.
- Sabherwal, R., Sabherwal, S., & Havakhor, T. (2018). How does strategic alignment affect firm performance? The roles of information technology and environmental uncertainty. *MIS Quarterly*, 43(2), 453–474.
- Singh, A., & Rana, N. P. (2023). Determinants of online purchase intention: The role of payment security, checkout simplicity and perceived risk. *Journal of Retailing and Consumer Services*, 72, 103239. <https://doi.org/10.1016/j.jretconser.2023.103239>
- Tapscott, D., & Tapscott, A. (2021). *Blockchain revolution: How the technology behind bitcoin and other cryptocurrencies is changing the world*. Penguin.
- Tornatzky, L. G., & Klein, K. J. (1982). Innovation characteristics and innovation adoption–implementation: A meta-analysis of findings. *IEEE Transactions on Engineering Management*, EM-29(1), 28–45. <https://doi.org/10.1109/TEM.1982.6447463>
- Turban, E., Pollard, C., & Wood, G. (2021). *Electronic commerce: A managerial and social networks perspective* (9th ed.). Springer.
- UNCTAD. (2021). *Digital economy report 2021: Cross-border data flows and development*. United Nations Conference on Trade and Development.
<https://unctad.org/webflyer/digital-economy-report-2021>
- UNCTAD. (2024). *Business e-commerce sales and the role of online platforms: UNCTAD Technical Notes on ICT for Development, No. 1* (UNCTAD/DTL/ECDE/2024/3). UNCTAD
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
<https://doi.org/10.2307/30036540>

Wilson, J. (2016). Digital transformation in e-commerce: Analyzing adoption and performance impact. *Journal of Business and Technology*, 12(4), 90-115.

Yalçinkaya & Çataldaş (2025) Determinants of customer satisfaction and loyalty in the Turkish e-commerce sector. *Frontiers in Communication*, 10, Article 1603554. <https://doi.org/10.3389/fcomm.2025.1603554>