

REVIEW

Characterization of *e-commerce* as an emerging strategy in the current economic environment

Caracterización del *e-commerce* como estrategia emergente en el entorno económico actual

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ABSTRACT

Introduction: e-commerce consists of using various Information and Communication Technologies (ICTs) to promote the trade of goods or services through platforms such as websites or social media. Currently, the use of the internet has enabled traditional commerce to evolve into e-commerce, becoming a fundamental component of the economic ecosystem. It represents a growth opportunity and constitutes an essential strategy for business survival and competitiveness.

Objective: to characterize e-commerce as a strategic modality within the current commercial ecosystem.

Method: a literature review was conducted using databases such as Google Scholar and ResearchGate, with keywords including e-commerce, Internet, digital tools, and website. A total of 16 articles were selected, and the necessary information was extracted.

Discussion: it has been evidenced that e-commerce has directly and significantly impacted the sales management of organizations. Digital tools such as social media, marketplaces, mobile commerce, and sales apps are essential to facilitate e-commerce adoption. Factors negatively affecting its implementation include limited technological infrastructure, insufficient staff training, and generational, educational, and economic gaps.

Conclusions: e-commerce has ceased to be an emerging alternative and has become an essential component of contemporary commercial dynamics. Although there are factors that may facilitate or hinder its implementation, it is imperative to take action aimed at promoting its adoption.

Keywords: Electronic Commerce; E-Commerce; Internet; Digital Tools; Website.

RESUMEN

Introducción: el comercio electrónico o *e-commerce* consiste en utilizar diferentes Tecnologías de la Información y las Comunicaciones (TICS) para incentivar el comercio de bienes o servicios tales como páginas *web* o redes sociales. En la actualidad el uso del internet ha generado que el comercio tradicional progrese al comercio electrónico, transformándose en pieza fundamental del ecosistema económico. Este representa una oportunidad de crecimiento, constituyendo una estrategia esencial para la supervivencia y competitividad de las empresas.

Objetivo: caracterizar el comercio electrónico como modalidad estratégica dentro del ecosistema comercial actual.

Método: se realizó una revisión bibliográfica accediendo a bases de datos como Google Académico y ResearchGate utilizando palabras clave incluyendo comercio electrónico, *e-commerce*, Internet, herramientas digitales y página *web*. Se seleccionaron un total de 16 artículos y se extrajo la información necesaria.

Discusión: se ha evidenciado que el comercio electrónico ha impactado directa y significativamente en la gestión de ventas de las organizaciones. Las herramientas digitales como *social media*, *market places*,

mobile commerce y *apps* de venta, son fundamentales para facilitar la adopción del e-commerce. Entre los factores que inciden negativamente en su implementación destacan la falta de infraestructura tecnológica, la escasa capacitación del personal, y las brechas generacionales, educativas y económicas.

Conclusiones: el comercio electrónico ha dejado de ser una alternativa emergente para convertirse en un componente esencial de la dinámica comercial contemporánea. Aunque persisten factores que pueden facilitar o dificultar su implementación, resulta imperativo avanzar con acciones orientadas a promover su adopción.

Palabras clave: Comercio Electrónico; E-Commerce; Internet; Herramientas Digitales; Página Web.

INTRODUCTION

E-commerce involves using various Information and Communication Technologies (ICTs) to facilitate the trade of goods or services, such as *websites* or social networks. It is also a process that facilitates transactions between businesses and consumers using digital marketing tools.^(1,2,3)

Another definition could be: all transactions conducted electronically between an organization and any third party with which it deals.⁽⁴⁾

E-commerce not only represents an opportunity for growth but also an essential strategy for the survival and competitiveness of companies.⁽⁵⁾

The early years of *e-commerce* were a period of explosive growth and extraordinary innovation that began in 1995, when the web was used to promote products and services. By 2006, *e-commerce* entered a period of redefinition with the emergence of social media and user-generated content sites, which have attracted huge audiences.⁽¹⁾

According to recent studies, less than 30 % of small and medium-sized enterprises in developing countries use e-commerce effectively. 6 In contrast, countries such as Spain saw *e-commerce* exceed €12,8 billion in the third quarter of 2020, 2,5 % more than the previous year, clearly demonstrating its upward trend.⁷ In Latin America, countries such as Colombia saw a 54,9 % increase in online sales between the second quarter of 2020 and the first quarter of 2021.⁽⁴⁾

E-commerce has its roots in two essential factors that shape the contemporary economy. First, the technological convergence of information technology and channels, with the Internet as the model. Second, the universalization of markets, the transnationalization of capital, and the fall of trade barriers. Both factors drive unexpected valuations, such as changes in trends, the emergence of new players, the expiration of models, and the invention of new formulas.⁽⁸⁾

Currently, the use of the Internet and *web* development has led to the progression of traditional commerce to e-commerce. Its global evolution has made it a fundamental part of the world, moving millions of dollars thanks to its exponential year-over-year growth.⁽⁹⁾

This new form of commerce is becoming increasingly relevant among businesses worldwide. Likewise, consumer behavior is changing, making it essential to implement new electronic systems and adjust the commercial strategy to capitalize on this potential and, therefore, favor the organization's growth.^(8,10)

In this context, all companies, whether large, medium, or small, need a practical commercial approach that protects them going forward while maintaining transparency in their value proposition.⁽⁸⁾

The technological transformation that organizations continue to experience internationally will affect their performance and achievement of business results.⁽⁸⁾

Online sales include displaying products, services, or ideas on a *website* for potential buyers. Thanks to this site, buyers can learn about the product and its benefits, and, if interested, make a purchase *online*.⁽¹¹⁾

E-commerce has revolutionized how companies internationalize, enabling easier, more direct access to foreign markets. In addition, the development of technologies such as *Big Data* and artificial intelligence has enabled companies to analyze more effectively and understand international markets, thereby adapting their internationalization strategies accurately and efficiently. In this sense, e-commerce has become fundamental to companies' internationalization, facilitating global expansion and enabling organizations to gain international reach quickly and effectively.⁽⁵⁾

Based on the analysis, it is clear that e-commerce is no longer an emerging alternative but has become an essential component of contemporary commercial dynamics. Its evolution has been marked by technological advances, changes in consumer behavior, and a growing need for adaptation among companies, regardless of their size or location. In this context, it was necessary to understand the factors that influence its adoption, as well as its advantages and disadvantages. Therefore, the objective of this research was to characterize e-commerce as a strategic modality within the current commercial ecosystem.

METHOD

A literature review was conducted by accessing databases such as Google Scholar and ResearchGate using keywords including *e-commerce*, Internet, digital tools, and *website*, combined with the Boolean operator AND. A total of 16 articles were selected, of which more than 70 % were published in the last 5 years. Relevant information was extracted, summarized, and organized to support the development of this research.

DEVELOPMENT

Since its inception, *e-commerce* has become one of the preferred options for many users and customers, leading to its continued significant transformation of product buying and selling, as well as the provision of professional services online.⁽⁹⁾

Malpartida-Maíz O et al.⁽⁸⁾ in a study conducted in a Peruvian company found that e-commerce has had a direct and significant impact on the organization's sales management. Other authors^(1,6,9) agree with these results.

Among the tools identified are: *social media*, *marketplaces*, *mobile commerce*, sales apps, user-friendly platforms, logistics, affordable prices, globalization, and *the security socket layer* (security). These strategies dominate e-commerce in the United States and Western Europe and are fundamental to the electronic sales process.^(12,13)

The authors agree that e-commerce has transformed consumer habits and positively impacted companies' commercial management. In addition, the tools mentioned above stand out because their use is essential to facilitating the adoption and consolidation of *e-commerce* across different markets.

Determining factors in the adoption of e-commerce

When referring to the barriers faced, we find that most companies are not ready to adopt this form of commerce due to a lack of knowledge, effort, and strategic vision, which has affected their strategies and attempts. In general, the challenge is understanding how the market works.⁽¹⁴⁾ They must also deal with the lack of adequate technological infrastructure and limited financial resources.⁽⁶⁾

There is no single formula for adopting e-commerce. Still, several dominant factors stand out, including organizational characteristics, technological readiness, e-commerce knowledge, innovation, environmental or external pressure, perceived ease of use, perceived benefits, and trust in the medium. The influence of these factors suggests that, although e-commerce offers numerous opportunities, its success depends on effective management and companies' ability to adapt to technological and market changes.⁽⁵⁾

Internal factors such as technological readiness and strategic vision of managers, together with external factors such as the regulatory environment and support infrastructure, have a considerable influence on this process.⁽⁵⁾

Companies must have sufficient technological infrastructure, such as modern computer equipment, reliable servers, and high-speed internet access. It is essential to select *e-commerce* platforms tailored to the business's specific needs, prioritizing those that offer integrations with payment tools and logistics systems.^(6,15)

Other authors⁽⁶⁾ specify that the successful implementation of e-commerce depends on key factors, such as staff training, the selection of appropriate platforms, and the integration of digital marketing strategies. The authors argue that among the factors with the most significant negative impact on e-commerce implementation are limitations in technological infrastructure and insufficient staff training in the digital sales environment. Consequently, it is recommended to make strategic investments in the organization's technological development, as well as to promote specialized training programs that strengthen workers' digital skills.

Despite its sustained growth, e-commerce faces significant gaps that limit its full adoption. Among the factors that have a negative impact are the low participation of small and medium-sized enterprises, conditioned by geographical, economic, and generational limitations; the low inclusion of older adults, due to a lack of digital skills and poorly adapted interfaces; and inequalities in education and income, which restrict access to the technological and financial means necessary to operate in digital environments.⁽²⁾

The duty to inform users about the processing of their data is established, and companies must do so in a transparent, easily accessible manner, using clear, straightforward language. Therefore, the legal notice, *cookie* policy, and privacy policy of every *online* store must be clearly stated. Likewise, users' consent to the processing of their personal data.⁽⁷⁾ The authors argue that a *website* design and interface characterized by its ease of use, as well as conveying a perception of reliability, would have a positive impact on the user experience. In this context, trust, loyalty, and satisfaction are identified as key determinants of users' e-commerce adoption.

Among the factors that mediate this implementation, the strategy used by the company is cited, as companies first set business objectives, which lead to the development of e-commerce strategies; however, strategy alone does not produce future performance. These must be adjusted according to their effectiveness, which is why it is essential to measure their impact and business results.⁽¹²⁾ The authors argue that strategic formulation is

an essential component in the implementation of e-commerce. However, they caution that it alone does not guarantee sustainable results if its effectiveness is not evaluated.

It is important to note that elements such as loyalty, trust, satisfaction, and purchase intent in the context of online commerce are fundamental and interact dynamically, shaping a positive, lasting experience for consumers in the digital environment.⁽¹⁶⁾

Growing competition in the digital arena also underscores the importance of developing effective e-commerce strategies. Companies must overcome barriers to entry, optimize their operations, and improve the customer experience to ensure sustainable growth. In addition, integrating advanced technologies, such as artificial intelligence and data analytics, can be a key differentiator for companies seeking to position themselves in saturated markets.⁽⁶⁾

The authors believe that, in highly competitive contexts, technological adaptability and continuous innovation can be as important as, or even more important than, the initial strategic design. In this sense, the shared opinion emphasizes that the success of *e-commerce* depends as much on planning as on dynamic execution in changing digital environments.

Advantages and disadvantages of e-commerce for businesses and consumers

E-commerce has profoundly transformed the global consumer landscape, and its importance lies in its ability to facilitate fast and efficient transactions.

Online or virtual sales are typically initiated through a computer application hosted on a *website*, designed to capture the attention of potential customers through technical product or service presentations, accompanied by quick sales proposals, accessible from anywhere in the world.⁽¹¹⁾

The organization's *website* must be capable of transmitting information messages containing content and images. It is a means of communication in which the sender (the company) sends messages to the receiver (the user). Users can place orders online, complete transactions, and apply different payment methods.⁽¹¹⁾

The convenience of purchasing products from home, the wide range of options, and access to exclusive offers are just some of the attractions that make e-commerce a popular alternative for consumers.⁽¹⁶⁾

It also has several advantages, including, in addition to the aforementioned global sales, 24/7 business, data collection, and personalized experience.⁽⁹⁾ The authors argue that e-commerce offers multiple advantages for consumers, but they emphasize that the convenience of purchasing products from home is the most significant benefit. This ease of access not only optimizes users' time but also improves their shopping experience by allowing them to explore options and complete transactions without geographic or time restrictions.

It has been found that implementing e-commerce and its tools yields positive results, increasing sales for small and medium-sized enterprises by providing greater visibility and reach for products and/or services, thereby increasing the probability of purchase.⁽¹⁴⁾

It is also noted that organizations that use digital tools maintain more stable levels of utility and profit and achieve better profitability over time, because they have greater openness and market reach, generating more contacts, customers, and consumers.⁽¹⁴⁾

The possibility of eliminating intermediaries and operating directly with customers has also been a disruptive change for companies that include e-commerce in their marketing strategies. The implementation of digital platforms allows traditional competitive strategies to be redefined, giving even the smallest companies an advantage.⁽⁶⁾ The authors argue that e-commerce has had a positive impact on small and medium-sized enterprises, especially in terms of increased sales and financial stability. In addition, they highlight that the elimination of intermediaries and direct access to customers allow commercial strategies to be redefined, favoring competitiveness and the sustained growth of organizations.

Other authors⁽¹²⁾ specify that the advantages would be: speed of purchase, accessibility, and product variety, although there are also limitations, such as the lack of physical sales spaces and security issues, including possible electronic fraud.

However, it also has other disadvantages, such as connectivity or *website* failure, interruption of the purchasing process by the user due to factors such as lack of trust, complexity of the interface, or lack of incentives, fear of payment security failures, and problems in the shipping process.⁽⁹⁾

E-commerce, as a growing form of commerce, is characterized by higher levels of uncertainty and risk than conventional commerce, which affects consumer confidence.⁽¹⁶⁾

Therefore, security becomes paramount during the payment process, as this is when consumers tend to provide sensitive information, such as credit or debit card numbers, along with other personal data. The authors argue that, depending on how it is implemented, security can be an advantage if it meets established objectives or a disadvantage if it fails to protect customer information. Consequently, the proper application of security mechanisms is essential to promote satisfied, reliable customers effectively.

Among the main limitations of this study are its nature as a literature review, the restriction to articles in English and Spanish, and the priority given to those published in the last 5 years. As a future projection,

experimental studies should be conducted to evaluate e-commerce use across different companies and assess its impact.

CONCLUSIONS

E-commerce has established itself as a strategic modality within the current commercial ecosystem, transforming the way companies and consumers interact. Although factors that can facilitate or hinder its implementation persist, it is imperative to move forward with actions that enable its rapid adoption. Its advantages in terms of reach, efficiency, and growth position it as a key tool for organizational development.

REFERENCES

1. Flórez Díaz DM. Diseño de un modelo de negocios para la comercialización de productos por medio de una plataforma de comercio electrónico en la Empresa Servicios Automotrices MFD. 2022.
2. Pincay DEH, Satama FLV. El comercio electrónico y su perspectiva en el mercado ecuatoriano. *Rev ComHumanitas*. 2022;13:1-33.
3. Anwar D, Faizanuddin M, Rahman F, Dayal R. Analyzing consumer behavior in e-commerce: insights from data-driven approaches. *Management (Montevideo)*. 2025;3:127. <https://doi.org/10.62486/agma2025127>
4. Zuluaga Arango LM. Evaluación de gestión de un e-commerce a través de indicadores. 2022.
5. Canchingre EYT, Ladines JG, Caicedo JA, Delgado RIS, Ortega EAM. El comercio electrónico como estrategia de internacionalización de las PYMES en el Ecuador. *Rev Cient Multidiscip G-nerando*. 2024;5:946-72.
6. Alvarez LMR, Rolando MVM, Herrera ICM. E-commerce y su impacto en el crecimiento de las PYMES. *Rev Política Cienc Adm*. 2024;3:6-18.
7. Estévez Cabo E, González Petrovich M. Plan de negocio y viabilidad de un e-commerce en Canarias. 2021.
8. Malpartida-Maíz O, Román-Córdova VS, Salas-Canales HJ. Impacto del comercio electrónico en la gestión de ventas en el Emporio Comercial de Gamarra (Lima-Perú). *Academio*. 2023;10:245-55.
9. Montoya Vera VL. Análisis de viabilidad para el desarrollo de un sistema e-commerce en gestión de ventas aplicada en medianas y grandes empresas de la ciudad de Babahoyo. 2022.
10. Narváez Costain MA, Vallejo Lopez CC, Zambrano Estrada JA, Solarte Solarte CM. Adaptation and challenges of MSMEs in Pasto in the face of COVID-19. *Management (Montevideo)*. 2023;1:50. <https://doi.org/10.62486/agma202350>
11. Zambrano LOA, Ruiz DVP, Arias EJJ, Saldivia CAR. Evolución del comercio electrónico y el marketing digital en Ecuador durante la pandemia de COVID-19. *Univ Soc*. 2023;15:185-92.
12. Villa Herrera GG. Estrategias de e-commerce a nivel mundial: una revisión sistemática de la literatura científica 2013-2018. 2024.
13. Eduardo Arenas L, Sanguino Bermon Z, Acevedo Pacheco MP. The impact of digitization on the international expansion of firms: a literature review analysis. *Management (Montevideo)*. 2025;3:126. <https://doi.org/10.62486/agma2025126>
14. Bravo-Huivin EK, Lewis-Zúñiga PF, Trillo-Espinoza VM, Vargas-Espinoza L, Rodriguez-Martinez AJ, Ugarte-Concha AR. Las herramientas digitales y de e-commerce como herramientas complementarias en la estrategia comercial de las Mypes del sector textil y de servicios de Arequipa. *Rev Ibér Sist Tecnol Inf*. 2023:281-93.
15. Kumar Bisoi S, Kaushik V, Grover M, Mane M, Biswas V, Mathad P, et al. Autism spectrum disorder from a psychological lens: cognitive, emotional, and social factors. *Health Leadersh Qual Life*. 2024;3:407. <https://doi.org/10.56294/hl2024.407>
16. Reyna JBV, Noguera CNO, Cisneros MAI, Pérez LPE. Optimización de la experiencia de compra en línea: análisis de variables de gestión en el e-commerce mexicano. 2024.

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