



EXPLORING THE SUSTAINABLE FUTURE OF E-COMMERCE COMPANIES THROUGH A DIGITAL MARKETING AND LOGISTICS CONTEXT

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ABSTRACT

Purpose - The main objective of this research is to analyze e-commerce companies in a digital marketing and logistics context to better understand the future of e-commerce companies.

Methodology - This manuscript has included updated literature and real examples to explore the new challenges facing e-commerce firms in marketing, logistics, and sustainability terms.

Findings- The results reveal that Amazon, JD.com, and Alibaba companies with their autonomous distribution have a huge competitive advantage against their main competitors because they do not depend on external logistics companies, their parcel shipments are more personalized, and they reduce time and costs in their processes. Nevertheless, when e-commerce companies depend on external distribution, the quality of their parcel shipment services is highly dependent on logistics firms' ability to provide excellent service to their consumers. Sometimes, consumers' satisfaction is related to parcel shipments by logistics companies, which may be affected by poor services or even parcels arriving too late, and possibly customers will be dissatisfied.

Conclusion- In the light of the information obtained because of the research, the sustainable future of e-commerce companies will lie in their efficiency and efficacy management, the sustainability of the environment, logistics services, technological innovations, and marketing strategies to increase sales conversion and cover new consumers' needs.

Keywords: E-commerce companies, digital marketing, logistics companies, autonomous and external distribution, sustainable e-commerce

JEL Codes: L20, L80, L90, M30

1. INTRODUCTION

The distribution of products sold by e-commerce firms requires digital marketing and logistics activities to reach the level of service that customers expect to receive. E-commerce companies such as Amazon, Zara, AliExpress, eBay, Walmart, Alibaba, or JD.com have totally changed the logistics and marketing industries. One proof of this is that most e-commerce firms launch great promotion campaigns several weeks before Black Friday to encourage users to buy more products and services, which are always supported by air and ground logistics companies. Indeed, some e-commerce firms promote 'free shipping' as a marketing strategy to increase online sales. These shipping costs are often shared by logistics providers (World Economic Forum, 2018). In 2022, US Black Friday online retail sales reached \$17.2 billion, up 10.2% compared with 2021 (Rodríguez, 2023). This figure demonstrates the importance of Black Friday marketing strategies, and their impact on consumers, and the income generated by companies. Logistics firms provide value-added solutions for transport, fulfillment, and returns for business-to-consumer (B2C), consumer-to-consumer (C2C), and business-to-business (B2B) deliveries. For instance, JD.com has its own logistics network in China, and this covers 99% of China's population, which enables it to deliver over 90% of its orders the same or next day (Oláh et al., 2019).

Today, customers demand green and sustainable e-commerce shopping to reduce emissions of CO₂ (World Forum Economic, 2020), and e-commerce and logistics companies are implementing sustainable solutions to reduce global warming and CO₂ emissions (Sakar, 2023) (e.g., electric vehicles, pickup points for parcels, optimizing air and ground routes, delivery before or after working hours, using recyclable plastic pallets, and returnable transport containers, amongst many others). Nevertheless, the reality is totally different due to the increase in the number of online shoppers and retailers in 2022 (Eurostat, 2023; Lin et al.,

2023). Arnold et al. (2018) note that B2C represents 61% of e-commerce shipments, and this situation is provoking more air pollution because of delivery vehicles and the use of non-sustainable packaging.

Instead, China is the world's largest e-commerce market, and this country is trying to reduce CO₂ emissions because Chinese consumers prefer online shopping to physical stores (Liang et al., 2021). Possibly, the sustainable future of e-commerce companies will lie in their efficiency and efficacy management, supported by logistics services (Nitsche and Straube, 2023), technological innovations (Adenigbo et al., 2023), and marketing strategies to increase sales conversion and cover new consumers' needs (Rosário and Raimundo, 2021; Ponzoa and Erdmann, 2021). For this reason, researchers and e-commerce companies must be aware of the increasing importance of understanding online consumer behavior within a marketing, logistical, quality, sustainable, and environmental sphere. Necula (2023) suggests that recognizing e-commerce firms' multidimensionality and consumer behavior in online transactions will help both marketers and companies design better marketing strategies to improve return on investment (ROI) and operational costs. The COVID-19 pandemic has provoked strong competition in the e-commerce market, and this new commercial scenario has boosted the competitiveness of e-commerce companies by providing logistics services (Kim et al., 2021a). This fierce competition between e-commerce platforms has led to new marketing strategies to distinguish oneself from the rest (Chen and Zhang, 2015) and increase impulsive purchases (Chen et al., 2022)

Most studies on e-commerce companies mainly focus on consumer behavior (Florida-Benítez, 2016; Fedushko and Ustyianovych, 2022; Modi and Singh, 2023), digital marketing (Ponzoa and Erdmann, 2021; Tolstoy et al., 2022), social media (Lv et al., 2020; Lin and Wang, 2023), logistics (Junior et al., 2020; Dobroselskyi et al., 2021; Florida-Benítez, 2023a), sustainability (Amornkitvikai et al., 2022; Haryanti and Subriadi, 2022), and prices (Hasiloglu and Kaya, 2021; Riquelme and Román, 2023), but there are a limited number of studies that address e-commerce companies and their connection with marketing strategies and distribution activities through logistics firms. The e-commerce industry is highly dependent on marketing activities and logistics services to provide excellent service to its consumers. The importance of logistics and digital marketing activities in the e-commerce sector requires greater implications for organizations and researchers to improve e-commerce companies' performance (Mangiaracina et al., 2015; Goldman et al., 2021). Moving from these considerations and gaps, the main goal of this research is to analyze e-commerce companies in a digital marketing and logistics context to better understand the future of e-commerce companies. Digital sales experienced a 25.7% surge in 2020, and 95% of orders will be done online in 2025 (IATA, 2022). The convenience of users' purchasing online, learning costs, and the incentive for firms to capitalize on investments in sales and distribution channels are helping to increase the number of companies on the Internet (OECD, 2022).

2. LITERATURE REVIEW AND RELEVANCE DATA FOR ANALYSING

2.1. The Current State and Evolution of the E-Commerce Industry

E-commerce is the practice of buying and selling goods or services using the Internet by users through their mobile devices or PCs (Eurostat, 2023). Although e-commerce includes other activities such as marketing strategies, promotion campaigns, brand recognition and positioning, information exchange, and trade negotiations between operators (Tofan and Bostan, 2022). During the pandemic crisis, consumers used the Internet to buy products and services to limit their physical interactions with other people (OECD, 2022).

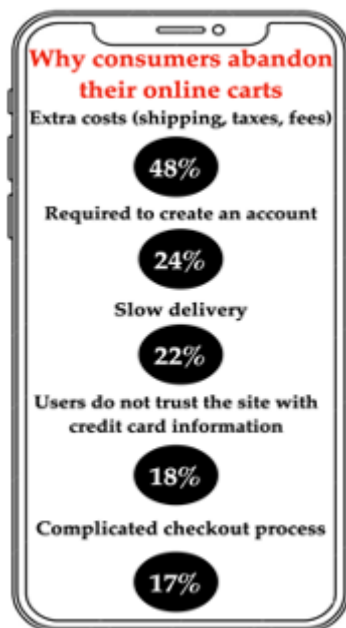
Nevertheless, with the inception of artificial intelligence (AI) in the e-commerce industry, e-commerce companies have been able to increase business efficiency and reach out to more customers effectively because AI provides personalized experiences tailored to the needs and interests of every customer (Moore, 2022). Barrera and Carrión (2014) argue that e-commerce companies are more accessible, functional, and convenient than traditional shopping because they do not have restrictions on time (working 24/7) or space; that is, consumers can buy products and services through their smartphones from the comfort of their homes. Moreover, one of e-commerce companies' largest fortresses for users is that they can immediately compare the attributes, features, and prices of different products through their smartphones (Camilleri, 2022), and this ubiquitous information is impossible to have in physical shops in terms of space-time.

Many small and medium-sized enterprises (SMEs) will need to pursue new opportunities in the electronic commerce sector to ensure their long-term survival (Tolstoy et al., 2021). According to the Global Digital Overview (2022) reported that global revenues associated with online purchases of consumer goods such as groceries, fashion, electronics, and other household items reaching \$3,85 trillion in 2021, 18% more than in 2020. Digital users are more connected to business than ever before, and they expect more responsive, sustainable, contents, products, and services from e-commerce companies they buy from. Recent studies reveal that consumers' perceptions about the negative effects of transportation can influence their motivations for help environment (Nogueira et al., 2021), or when users search for a specific product, they can sort the results based on the eco-friendliness rating (Islam et al., 2023). From 2010 to 2022, consumers between 25 and 34 years old represented the highest share of online buyers by 87% to buy goods or services online; this means an increase of 24% in 2022 in comparison with the year 2012.

The second position is occupied by users between 35-44 years old, and 83% of this group bought goods and services online in 2022, showing an increase of 24% compared with 2012. Nonetheless, the largest rise was recorded by the proportion of online buyers aged 16-24, from 53 % in 2012 to 81 % in 2022, an increase of 28%. Regarding the group of online shoppers aged 45-54, they were very close to the EU total population average over the last 10 years, while the figure of the 55-74 age group was below the EU average (Eurostat, 2023). A study carried out by D'Adamo et al. (2021) argue that the main challenge for e-commerce is to include cybersecurity and sustainability in its operational activities. Today, there are not 100% safe spaces due to the fact that the fact that e-commerce companies are continuously exposed to possible cyberattacks and vulnerabilities (Florida-Benítez, 2021a, 2024a). Apparently, on the basis of the data shown previously, the e-commerce sector is in good health, and it presents a promising future.

Sometimes, e-commerce companies and their staff should know what will deter rather than attract customers. According to Forbes Advisor (2023) reported that 48% of consumers abandon their online carts because companies implement extra costs such as shipping, taxes, and fees (see Figure 1), followed by the requirement to create an account (24%), slow delivery (22%), users not trusting the site with credit card information (18%), and complicated checkout process (17%). Wang et al. (2022) note that lengthy registration forms, technical glitches, complicated payment methods, slow loading of web pages, and complex transaction processes increase consumers' frustration when they buy services and products on e-commerce firms' websites. From the consumer's point of view, customers buy on a company's e-commerce websites to acquire desired items, to have more information on an item (e.g., lower prices or discounts), and take advantage of a price promotion such as free shipping (Close et al., 2010).

Figure 1: The Main Reasons Why Consumers Abandon Their Online Carts



Source: Author's own elaboration from Forbes Advisor (2023).

2.2. Digital Marketing and E-Commerce: A Symbiotic Relationship

Digital marketing for e-commerce companies includes the 4Ps (product, price, promotion, and place) of the marketing mix (McCarthy, 1960): first, a product or service that solves a consumer's need; second, the monetary value of the product. Third, how your product is presented and promoted to the public; and fourth and last, the place where the product is being marketed and distributed. Selling is an effort taken to move a product, where the price is an element in digital marketing that determines profitability and the product's value (Kotler, 2011; Florida-Benítez, 2022a). The online sales of products and services by e-commerce firms are more complex than those in physical stores due to new consumer demands and the multidisciplinary nature of the e-commerce industry. For example, e-commerce companies need to develop pricing strategies and monitor sales every week to compete against their main competitors in the local and international markets. Hence, e-commerce firms design and

develop their products and services by examining the market, monitoring what consumers demand, and very importantly, determining what similar products and services are being sold by their main competitors.

Another important element is price. Pricing strategies are widely used in the e-commerce sector to attract new customers and sell more goods and services to their existing customers. Hillen and Fedoseeva (2021) revealed that Amazon implemented a new way of dynamic pricing into Amazon Fresh's online channels to stimulate its sales in food retailing. In the tourism and air transport industries, online travel agencies (OTAs), hotels, and commercial airlines such as Expedia, Booking.com, Meliá Hotels, and Ryanair use price discrimination strategies through official websites and apps to maximize their benefits. The concept of price discrimination means providing different prices for the same products or services to target consumers with different levels of affordability and demand intensity (Chen et al., 2023).

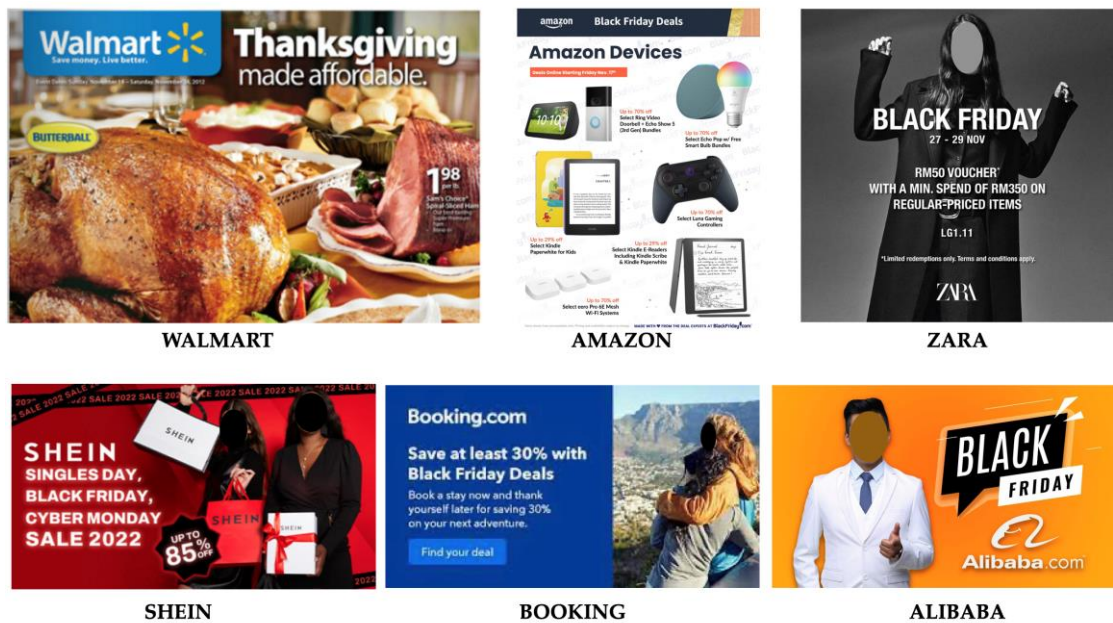
Digital marketing is a tool in which firms and customers use the Internet to create value and products as well as interchange them (Wang, 2024; Florido-Benítez, 2024b). Digital technologies and big data are crucial elements of digital marketing to customize users' products and services. An e-commerce company can be favored by customer segmentation in a bid to tailor customized products and services to consumers and position the company at digital channels such as Apple, Nike, UPS, or Walgreens.com. One of the important tasks facing the future of e-commerce is to innovate the logistics service model and use the power of big data to comprehensively improve the level of e-commerce logistics services (Velentza and Metaxas, 2023).

In addition, digital marketing provides different tools to promote and communicate companies' products and services, such as websites, social media, apps, online advertising, search engine optimization (SEO), search engine marketing (SEM), or even Google Analytics to monitor the ROI of companies. When companies use a variety of digital channels, is known as an omnichannel tool, to improve their sales and position their brand image. The implementation of marketing strategies through digital channels enhances the flow of new customers and increases revenues (Kaur et al., 2022), as well as e-commerce firms' productivity. Kapoor and Kapoor (2021) note that the success of online promotion campaigns depends on the marketing strategies and targets chosen by companies. For instance, when some airports, such as Singapore Changi (Singapore), Seoul Incheon (South Korea), and Doha Hamad (Qatar) airports win the Skytrax's prizes, they promote and advertise these awards through their official websites and apps to attract air cargo carriers, logistics companies, and position the airport's brand image around the world (Florido-Benitez, 2016, 2022b). The brand image is a powerful tool used by famous companies such as Ferrari, Chanel, Apple, and Gucci, amongst many others. to be distinguishable from their competitors.

Florido-Benítez (2022a) defines "HuMobAp" as those people that move according to their needs and incentives that firms' apps provide them (Human-Mobile-App) such as Amazon, Shein, FedEx, DHL, Uber, Google, and Booking.com, amongst many others. The use of digital technology in the e-commerce and logistics sectors allows firms to ensure strategic competitive advantages and increase their efficiency and productivity (Bekmurzaev et al., 2020). Figure 2 displays some examples of Thanksgiving and Black Friday promotion campaigns by e-commerce companies to stimulate their sales and increase their revenues. Ponzoa and Erdmann (2021) suggest that Amazon has the best knowledge in of digital marketing techniques to attract customers, and this know-how gives Amazon an important competitive edge in a sector as competitive as the e-commerce industry. Today, it would be unthinkable to design and promote these marketing campaigns without air and ground logistics companies. The immediacy of communications and package shipments makes it possible for managers to take better decisions be more productive, increase revenues, and improve consumers' experiences.

Digital marketing and e-commerce are inherently interconnected, forming a symbiotic relationship that drives the success of online businesses. This relationship is pivotal for reaching consumers, enhancing the user experience, and ultimately driving sales. In fact, effective marketing strategies can drive sales, but efficient logistics services are crucial to ensuring that customers receive their orders on time and in good condition. For example, marketing data can inform the logistics department about demand patterns, while logistics data can inform the marketing department about delivery capabilities and timelines. FedEx and UPS have integrated digital tools for shipment tracking and customer engagement, enhancing the logistics experience.

Figure 2: Thanksgiving and Black Friday Promotion Campaigns by E-Commerce Companies



Source: Author's own elaboration from Medialte (2013), Amazon (2023), Qué! (2023), Cision PR Newswire (2023), Booking.com (2022), and Bejar (2023).

2.3. The Relevance of Distribution to E-Commerce Companies

Logistics plays a very important role in the distribution of companies' products and services because an on-time delivery improves customers' loyalty (Otim and Grover, 2006). The quality of customer service levels by companies is associated with the appropriately performed delivery of products and services (Suliga, 2018), including logistics and marketing activities, which average customers' experience and satisfaction (Gajewska et al., 2020). The distribution of goods by e-commerce firms is part of the 4Ps of digital marketing, and therefore, companies and logistics services relationships and interests must be as stable, efficient, and productive as possible. The top three factors that identify logistics firms' quality are: on-time delivery, total support of customers' needs, and error-free transactions (Vasić et al., 2021). For this reason, most logistics companies (e.g., DHL, DPD, FedEx, and UPS) and some e-commerce companies like Amazon and Shein show the parcel tracking and real-time product visibility. On the contrary, home delivery services, which are usually the preferred option by online consumers, are causing environmental issues (e.g., global warming, CO₂ emissions, delivery vehicles generating noise, among others) in Paris, Berlin, Cologne, and London cities (Allen et al., 2018). Milewski and Milewska (2021) found that distribution with the use of parcel lockers can help reduce the consumption of fuel even by 74–87% per parcel, or 36% per m³ in Poland.

Logistics service is one of the most expensive operations for e-commerce companies. Under this circumstance, the distribution of products and services by logistics companies will face new opportunities and operational challenges in the next five years. Proof of this is the Amazon e-commerce company that is investing in decentralized warehouses to establish next day delivery or even the same day. This is because the "last mile", which is the final delivery step to the consumer, is gaining importance due to the rising share of online retail (Hausmann et al., 2014). If e-commerce and logistics companies do not satisfy the expectations of customers, their place will be taken by other companies that understand their immediate needs. Consumers evaluate e-commerce and logistics companies' service quality, such as on-time delivery, portfolio of services, the cost of services, payment method, and the applied technological solutions (Florida-Benítez, 2023b). The environmental impact can be reduced through efficient supply and delivery activities for consumers (D'Adamo et al., 2021).

We would like to highlight that there are two types of e-commerce companies in terms of distribution and logistics systems:

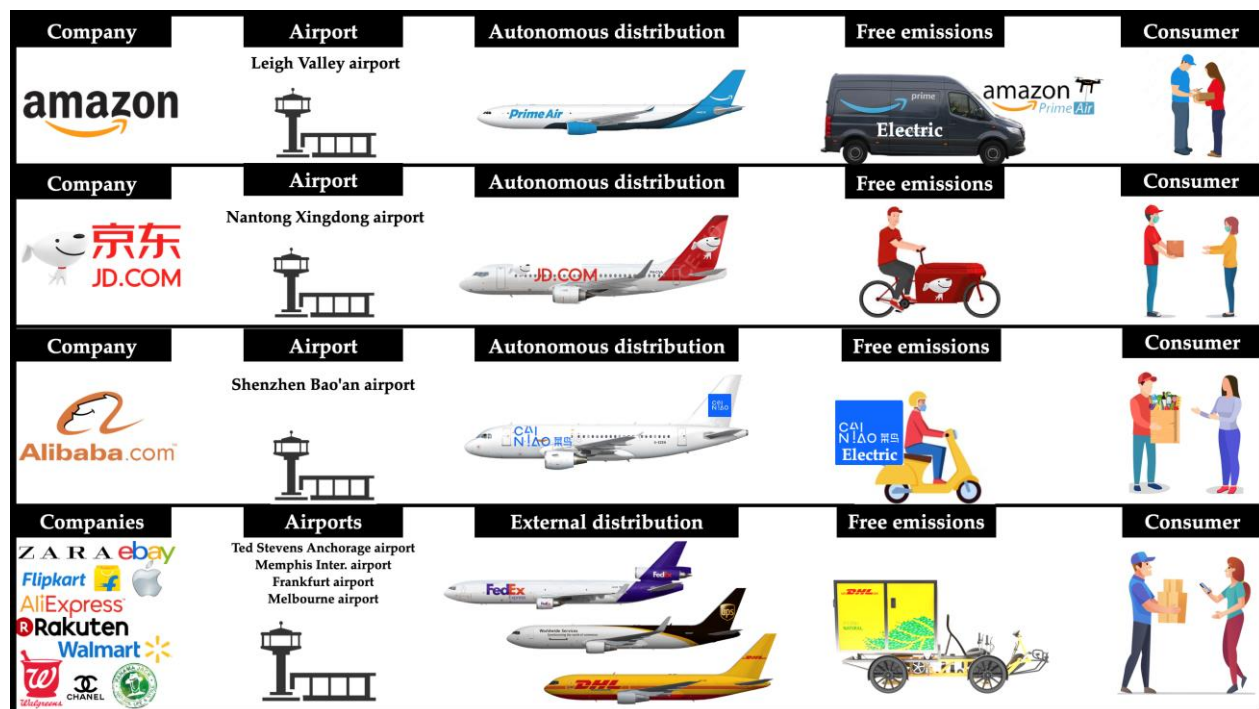
1. Autonomous distribution of parcel shipments: the company manages and distributes its own parcel shipments with its own infrastructure and means of transport, such as warehouses, cargo aircraft, ships, trucks, and staff, among others, to provide effective and efficient management of package shipments to its customers. For example, air transport is

accessible across most of the world and is ideal for shipments that need to be moved quickly across the globe. Nowadays, Amazon is the most representative example of autonomous distribution. Amazon squeezes costs by focusing on high-density markets and dotting urban markets with delivery stations, which allows it to reduce its reliance on other shipping companies (Greene, 2020). The key is managing the costs of the most expensive part of a parcel's trip to customers, the so-called "last mile." Even so, Amazon works with FedEx, UPS, and DHL companies to guarantee its shipping services from any point in the world. Recently, China's Alibaba, Suning.com, and JD.com companies have been operating in this territory with their own logistics network; in the case of Alibaba, this operates through its logistics subsidiary Cainiao.

- External distribution of parcel shipments are those companies that require external logistics services to distribute their products and services (understood as parcel shipments) to their customers. For instance, eBay, Walmart, Philips, Zara, Apple, Rakuten, and Walgreens companies' products are distributed by FedEx, UPS, and DHL logistics firms. However, this type of distribution shows some weaknesses, first, a bad service provided by the logistics company can increase e-commerce firms' costs and reduce their efficacy (Kim et al., 2021b), and second, costumers' satisfaction directly depends on logistic company services and not on the e-commerce company (Florida-Benítez, 2023a). In other words, the effectiveness or ineffectiveness of logistics companies has a great influence on consumers' satisfaction, as do e-commerce companies. The success of e-commerce companies is linked to the distribution of products and services and logistics firms, with the aim of promoting online purchases and customer satisfaction (Qin et al., 2020). As stated by Xiao et al. (2021) thanks to e-commerce services, logistics facilities and courier companies have proliferated in the major metropolitan areas around the world.

Figure 3 shows autonomous and external distribution by e-commerce companies and how parcels are sent to consumers by different deliveries with emissions-free vehicles. DHL, Hermes, and TNT logistic companies integrate cargo cycles into their supply chains. Cargo cycles, known as bike couriers, are a zero-emission alternative to light goods vehicles in city centers (Schliwa et al., 2015). Bike couriers also suffer less from road congestion problems than van or truck transport, and these are used to deliver letters, little packages, contracts, etc. In the case of zero emission electric freight vehicles (e.g., trucks, vans, or motorcycles) they are considered one of the best vehicles to reduce the negative impacts of transport in cities while maintaining an efficient urban freight transport system, such as in Amsterdam, New York, London, Tokyo, Oslo, Seoul, California, and Berlin amongst many others (Lal et al., 2023).

Figure 3: Autonomous and External Distribution by E-Commerce Companies



Meanwhile, the sustainable future of e-commerce and logistics companies requires replacing conventional fossil fuel-driven vehicles with zero-emission vehicles to achieve environmental targets. For instance, unmanned aerial vehicles (UAVs) are considered an excellent tool to reduce CO₂ footprints in the logistics industry (Bukhari et al., 2023), but there are some problems concerning this type of electric transport due to a lower electricity demand when delivering food and packages to clients (Kwasiborska et al., 2023), as well as to consider complex urban scenarios, adverse weather conditions, flight time and distance limitations, and customer identification (Troudi et al., 2018). Conversely, air cargo carriers are the ones that pollute the most, air freight leaves the most significant carbon footprint for large items compared to ocean freight. Flights emit 500 grams of carbon dioxide per metric ton of cargo per kilometer of transportation. However, ships emit only between 10 and 40 grams of carbon dioxide per kilometer (Kilgore, 2023). The carbon footprint of airplanes is 20 to 30 times greater than that of ships (Kilgore, 2023). Numerous options to decarbonize (known as decarbonization) and develop zero-emission aircraft and ships are available for the logistics industry, but none of them is emerging as a specific trend by now (Wang et al., 2023). Baxter (2022) notes that Cargolux Airlines uses Jet A1, which is the most important energy source for aircraft, while for its ground-based facilities, truck and van vehicles use electricity sources.

2.4. The Relevance of Airports and Air Freight Carriers Linked to the Future of Companies' Product and Service Distribution

Airports are the most strategically important transport infrastructure for air freight carriers and e-commerce companies because the location of warehouses and logistics firms needs to be as close as possible for airports to cost savings, time savings, and higher efficiency (Florida-Benitez, 2022c). Airports boost the establishment of logistics, technological, e-commerce, and tourism companies in cities (Florida-Benitez, 2022d). For this reason, warehouses, logistics companies, and air freight carriers are localized near airports and high air connections to reduce costs (Florida-Benitez, 2021b), or vice versa, the airport's success is influenced by airlines and connectivity with other places. In 2019, nearly 61 million tons of goods were shipped by air, and since 2014, air cargo has grown faster than world trade (IATA, 2020). Sixty-one percent of companies localized around the Munich airport (Germany) used this airport to ship cargo, of which 33% stated that air freight was their primary means of transport (Boloukian and Siegmann, 2016). In 2022, European online buyers reached 75%, and this increased by 20% over the last 10 years (Eurostat, 2023).

Most logistics companies are localized around the Zhengzhou Xingzheng airport in China because they distribute products and services in the wholesale electronic and clothing market, among others, and these industrial chains are in the city of Zhengzhou (Zhao and Miao, 2023). While the Zhengzhou airport has seen an increase in its operations and incomes thanks to Foxconn, this company is the manufacturer of Apple's iPhones, and it is localized in Zhengzhou (International Airport Review, 2018). In the case of JD.com, the e-commerce company has an extensive network of over 1,000 air transportation routes, covering more than 100 airports worldwide, and its JD Logistics and JD Logistics airlines subsidiaries transport JD.com's parcels across the globe (Wang, 2023a). The main JD.com's base airport is Nantong Xingdong airport. Furthermore, Cainiao company, the logistics arm of Alibaba e-commerce firm, has announced its partnership with Shenzhen airport (China) to establish an air cargo center, with plans to launch new international cargo routes (Wang, 2023b).

Economies of scale, airports' locations, and changes in sourcing and distribution strategies drive disruptions in the retail sector (Rodrigue, 2020), but it was Amazon that marked the starting point of the emerging logistics of the e-commerce industry. Amazon Air has a total of 97 planes, and they fly services to 64 different destinations to deliver over 2 million packages across the globe (Forbes, 2023). The growth of Amazon Air is a benchmark of the retailer's push to expand its presence in the overnight and two-day home delivery markets (Schwieterman and Walls, 2020). Amazon Air grew from 7.5% to 14.6% of FedEx's capacity and from 11.2% to 20% of UPS's capacity (Schwieterman and Craig, 2023). The importance of airports for e-commerce companies is essential for their logistics activities. Indeed, the Lehigh Valley (ABE) airport is the Amazon Air operational base and is focused on the air cargo activity of this firm.

Air freight carriers provide fast and reliable delivery times, allowing logistics and e-commerce companies to increase on-time service (Dresner and Zou, 2020). The top five air cargo carriers worldwide in 2022 were: FedEx, United Parcel Services, known as UPS, Qatar Airways, Emirates, and Korean Air (IATA, 2023). Although the air cargo sector is dominated by DHL, UPS, FedEx, and TNT integrators (Schäfer, 2023). They are called integrators because their systems – pick-up, sorting, long-distance transport, and delivery – are integrated (Florida-Benitez, 2023a). There are, however, environmental differences between these companies. UPS and DHL have included sustainable operational activities as a competitive advantage, while FedEx has focused on cost savings through emission carbon reductions (Herold and Lee, 2017). However, FedEx was recognized as the 'Logistics Company of the Year' at the 2023 Logistics and Transport Awards for sustainability efforts, and integration of technology with transportation and e-commerce services (FedEx, 2023). For example, from a consumer perspective, FedEx provides the best customer value for express service in Taiwan, according to these six factors: land time between house and airport at both ends; administrative

processing time; pick-up and haul time in warehouse; level of accuracy; level of safety; and rapid turnover (Ding et al., 2016). More and more logistics and e-commerce companies try to adjust their product and service management strategies to cover other companies and their own consumers' needs and preferences (del Alcázar, 2022).

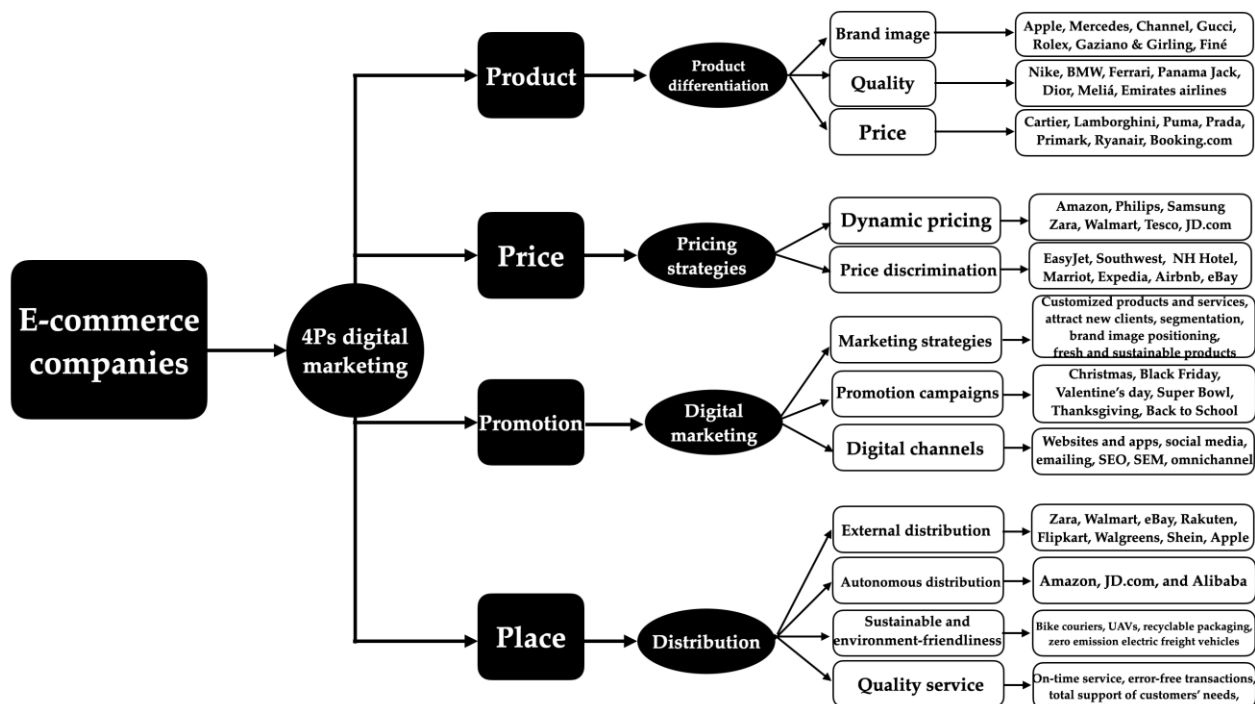
3. A GLOBAL VISION OF E-COMMERCE, DIGITAL MARKETING, AND LOGISTICS RELATIONSHIPS EXAMINED IN THIS PAPER

E-commerce companies are aligning with new consumer needs related to purchasing effects on the environment. Thus, logistics and e-commerce companies are focused on reducing their carbon footprint through innovative and sustainable activities. Sustainable packaging, also known as green packaging, is about sourcing, creating, and developing packaging solutions that leave no or little impact on the environment (Wandosell et al., 2021). Companies such as Gucci, Puma, KFC, ASOS, Frito-Lay, Calvin Klein, Seasalt Cornwall, Just Water, and The White Company have taken notable initiatives towards their objectives to save tons of plastic every year by using a thinner material for their product packaging (ShippingChimp, 2022). These sustainable actions are promoted on companies' websites, apps and social media as marketing strategies to show their commitment to the environment.

For instance, Ubuy India and Amazon have introduced 'Frustration-Free Packaging,' which reduces waste and eliminates the need for excess packaging materials (Khan, 2023). From the connotation of green logistics management, logistics companies need to use green packaging materials and easy recycling packaging materials for proper packaging, as well as reduce the use of packaging materials (Zhang and Zhao, 2012). The abundant cardboard waste generated by the e-commerce sector ends up being degraded and polluted nature (Escursell et al., 2021). We would like to point out that when we contaminate nature and the environment, we are polluting ourselves. Nguyen et al. (2020) note that consumers perceive eco-friendly packaging as an important marketing strategy for companies to remain sustainably competitive. In response, these concerns of consumers must be promoted through digital channels to raise people's awareness of environmental sustainability.

As sustainability continues to be important for consumers, companies that focus on sustainable business practices through digital marketing can become more relevant and profitable. Promoting more sustainable product and service offerings and new green packaging initiatives boosts companies' brand image worldwide and builds trust with consumers (Zhang and Zhao, 2012; Florido-Benitez, 2022e). Deloitte (2023) reported that e-commerce companies that wish to thrive in the future should continue to invest in new products and services and marketing efforts that help ensure a healthy and sustainable future, particularly through the metaverse and AI scenarios.

Figure 4: The 4Ps Digital Marketing Model for the Sustainable Future of E-Commerce Companies

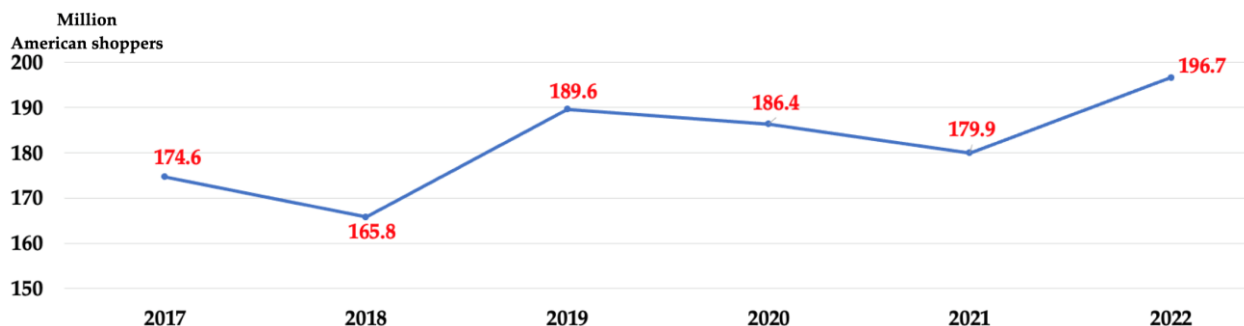


It is necessary, in this general context, to analyze all the information and data furnished to provide a global vision of the e-commerce sector. This study illustrates the sustainable future of the e-commerce industry through the 4Ps digital marketing model (see Figure 4) that will help e-commerce and logistics companies and researchers better understand the future scenario that they are facing to improve consumers' experience and satisfaction and the sustainability of the environment. For example, companies' distribution and sustainable operations are tackled in the section of distribution in Figure 4, where quality service and sustainability and environmental friendliness are very important activities for e-commerce and logistics companies, as well as consumers' perceptions and satisfaction. Customers' perceptions of quality services and environment friendliness by companies need to meet three factors: consumers' desires, expectations, and predictions (Wu et al., 2018).

Interestingly, a result of this study was that Amazon, JD.com, and Alibaba companies with their autonomous distribution have a huge competitive advantage against their main competitors because they do not depend on external logistics companies, their parcel shipments are more personalized, and they reduce time and costs in their processes. Amazon's efforts into distribution and logistics infrastructure allow it to control and reduce costs, time, and efficiency of its delivery system (Zhang et al., 2019). Conversely, when e-commerce companies depend on external distribution, the quality of their parcel shipment services is highly dependent on logistics firms to provide excellent service to their consumers. Sometimes, consumers' satisfaction is related to parcel shipments by logistics companies, which may be affected by poor services or even parcels arriving too late, and possibly customers will be dissatisfied. E-commerce and logistics companies must be conscious of the effects of delays in delivery on customers' perceptions of the service (Uzir et al., 2021).

Another important outcome was that digital marketing plays a significant role in the future development of logistics and e-commerce companies' economic, commercial, and sustainability. The e-commerce sector requires constant evolution and updating of technologies to achieve success for firms, as is providing excellent customer experience and service through marketing strategies and promotion campaigns. Christmas, Black Friday, Valentine's Day, Super Bowl, Thanksgiving, and back – school promotion campaigns through digital channels such as websites, apps, social media, and emailing, among others increase companies' online sales and revenues. US retailers consider that their most profitable days are the Friday after Thanksgiving, Black Friday, the Monday after Thanksgiving, and Cyber Monday, thus, their ROI in marketing campaigns increases their incomes annually (Swilley and Goldsmith, 2013; Sailer, 2022). In 2022, almost 197 million Americans shopped in stores or online from Thanksgiving through Cyber Monday, spending an average of \$325.44 each over the five days (National Retail Federation, 2022). In these five days, Americans spent more than \$35.3 billion on online purchases (Tretina, 2023). Indeed, Thanksgiving's shoppers have not stopped growing from 2017 to 2022, as we can see in Figure 5.

Figure 5: Thanksgiving Weekend Shoppers from 2017 to 2022



Source. Author's own elaboration from National Retail Federation (2022).

Furthermore, promotion campaigns are an excellent tool to promote personalized products and services during off-seasons because these marketing actions help to attract new clients and position the company's brand image on digital channels. Therefore, providing specific product and service information through omnichannel and promotion campaigns might help consumers make better decisions in terms of quality and price compared to traditional stores. Online consumers value other online user-generated reviews on products and series offered by e-commerce companies and their business performance. 74% of travelers use the comments of other consumers as information sources when planning trips for pleasure (Gretzel and Yoo, 2008). Traveler reviews have a significant impact on online sales, with a 10% increase in traveler review ratings boosting online bookings by more than 5% (Ye et al., 2011).

Regarding the pricing strategies in the e-commerce industry, we included the dynamic pricing strategy, which is commonly used by Amazon, Philips, Walmart, Zara, Tesco, JD.com, Alibaba, and Samsung, amongst many others. Most of these e-commerce

companies are monitoring and comparing their prices with their main competitors daily to provide the most competitive price in the market in terms of price-quality ratio. The prices of products and services of Amazon, JD.com, Yonghui Supermarket, and Alibaba companies are conditioned by their high-speed deliveries to consumers (Wang and Ng, 2020). Notwithstanding, price discrimination strategy is more frequently applied in hospitality, OTA, and air transport companies such as Booking.com, Hilton, Hercha, Marriot, Ryanair, American Airlines, Expedia, or Airbnb companies because this pricing strategy has a greater impact in terms of revenue maximization than dynamic pricing strategy. This is due to squeezed profit margins existing in the hospitality, OTA, and air transport sectors, selling perishable services, and a high level of competition between domestic and international operators. Han and Bai (2022) note that big data-enabled price discrimination as marketing practices in the tourism and air transport industries increase competition between companies and fare revenue. From the consumer's point of view, the price discrimination strategy helps buyers receive targeted offerings that better meet their preferences in terms of products and services, the price asked, and preferred purchase timing (Namin et al., 2020). The biggest representative of the price discrimination strategy is eBay.

To conclude this section, the e-commerce industry is helping companies establish a wider market presence by providing cheaper and more efficient distribution channels for their products or services through brand image, quality, and price digital marketing strategies. Online stores such as Apple, Mercedes, Chanel, Gucci, Rolex, and Gaziano & Girling have known how to put their brands at the top of the e-commerce sector thanks to their marketing strategies and position their brand image more effectively than other companies. Mao et al. (2020) suggest that Apple and Huawei smartphones' brand image influences customers' purchase intentions. However, BMW, Nike, Ferrari, Panama Jack, Dior, Meliá, and Emirates companies are recognized for the quality of their products and services, and sometimes these firms pre-launch their products and services online with reservations in limited quantity before release to test the market. For instance, Nike has a strong brand and quality recognition among teenagers across the globe, and this company promotes their products through digital channels to increase their sales, particularly Nike advertise its sneakers through celebrities and famous athletes such as Will Smith, Michael Jordan, LeBron James, and Serena Williams. As stated by Zhu (2022) this is one of the main digital marketing strategies for Nike, and its revenues are increasing every year.

On the contrary, Ryanair, Shein, Primark, or Booking.com companies apply low and affordable pricing strategies based on the 4Ps digital model to their websites and apps to compete with their main competitors. The main competitors of Shein are Zara, H&M, ASOS, Primark, and Amazon. Shein's prices are low and reasonable to attract new clients and increase its sales. A tweet went viral claiming that \$280 at Shein is equivalent to a year's worth of clothing (Shen, 2022). In the case of Booking.com, its main competitors are Airbnb, Expedia, Orbitz, Kayak, and TripAdvisor. One of the main marketing strategies of Booking.com is its low prices and promotion campaigns through its omnichannel tool (Santos et al., 2021). Companies are perfectly aware of the strengths and weaknesses of the e-commerce industry, and some of them, like Cartier, Puma, Prada, Hermes, or Amani, have seen the e-commerce perfect scenario to differentiate their products through their high prices and an opportunity to sell their products much more quickly and efficiently than in their physical stores.

4. CONCLUSION

The main goal of this manuscript was to analyse e-commerce companies in a digital marketing and logistics context to better understand the future of the e-commerce companies. Initially, one of the most significant advantages of e-commerce industry is the ability to reach customers anywhere in the world through companies' websites and apps, and digital marketing strategies, as we can see previously. Digital marketing's advantages include accessing new markets with fewer expenses. The sustainable future of e-commerce companies will lie in their efficiency and efficacy management, the sustainability of the environment, logistics services, technological innovations, and marketing strategies to increase sales conversion and cover new consumers' needs.

Findings reveal that logistics plays a very important role in the distribution of firms' products and services, as an on-time delivery improves the quality of services. For instance, Amazon, JD.com, and Alibaba companies with their autonomous distribution have a huge competitive advantage against their main competitors because they do not depend on external logistics companies, their parcel shipments are more personalized, and they reduce time and costs in their processes. Nevertheless, when e-commerce companies depend on external distribution, the quality of their parcel shipment services is highly dependent on logistics firms' ability to provide excellent service to their consumers. Sometimes, consumers' satisfaction is related to parcel shipments by logistics companies, which may be affected by poor services or even parcels arriving too late, and possibly customers will be dissatisfied.

Another important result was that the sustainable future of e-commerce and logistics companies requires replacing fossil fuel-driven vehicles with zero-emission vehicles to achieve environmental targets. Indeed, green packaging and parcel shipment fulfilment are vital elements of an omnichannel marketing plan to enhance consumers' experiences. However, air cargo carriers

are the ones that pollute the most in the world, and government bodies must be aware that it is not only about reducing emissions of CO₂. This great issue requires better measures and laws to help enhance the air quality in cities. Therefore, air freight carriers urgently need to develop other alternatives to fossil fuel 'decarbonization' to achieve zero-emissions. Unfortunately, none of the air cargo carriers are achieving this difficult challenge. Consumers demand that logistics and e-commerce companies include sustainable and ethical activities as an essential part of their processes to reach CO₂ zero emissions. The sustainability of the environment by governments, companies, and consumers needs to become an established reality rather than merely a trend.

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