



# **E-Commerce in Brazil: An In-Depth Analysis of Digital Growth** and Strategic Approaches for Online Retail

Claudimar Pereira da Veiga <sup>1,\*</sup>, Cássia Rita Pereira da Veiga <sup>2,\*</sup>, Júlia de Souza Silva Michel <sup>3</sup>, Leandro Ferreira Di Iorio <sup>1</sup>, and Zhaohui Su <sup>4,\*</sup>

- <sup>1</sup> Fundação Dom Cabral—FDC, Av. Princesa Diana, 760 Alphaville, Lagoa dos Ingleses, Nova Lima 34018-006, MG, Brazil; leandro.iorio@gmail.com
- <sup>2</sup> Department of Health Services Management, School of Nursing, Federal University of Minas Gerais, Av. Alfredo Balena, 190, Belo Horizonte 30130-100, MG, Brazil
- <sup>3</sup> School of Business Administration, Federal University of Paraná, Lothário Meissner, 632, Jardim Botânico, Curitiba 80210-170, PR, Brazil; juliasouza2016silva@gmail.com
- <sup>4</sup> School of Public Health, Institute for Human Rights, Southeast University, Nanjing 210009, China
- \* Correspondence: claudimar.veiga@gmail.com (C.P.d.V.); cassia.veig@gmail.com (C.R.P.d.V.); suzhaohuiszh@yeah.net (Z.S.)

Abstract: This article delves into Brazil's rapidly expanding e-commerce sector, emphasizing its significant growth and evolving dynamics. Employing a meta-narrative review and a convergence-coding matrix, this research systematically analyzes and integrates findings from the existing literature to reveal critical industry patterns. The analysis identifies four pivotal clusters: consumer behavior, e-commerce structure, product distribution, and environmental sustainability. These elements collectively offer a comprehensive view of Brazil's present and future e-commerce directions. This study underscores the imperative for strategies responsive to changing consumer behaviors, technological advancements, and environmental concerns. It also furnishes practical insights for enhancing online retail consumer engagement, logistical efficiency, and sustainability. Furthermore, this research advocates for e-commerce as a vehicle for digital inclusion, calling for policies that promote equitable access to online markets. This underscores its broader socio-economic importance, suggesting a path forward for stakeholders in shaping a more inclusive and sustainable e-commerce ecosystem.

**Keywords:** e-commerce; online retail; last mile logistics; consumer behavior; technological innovations; sustainable e-commerce; decision making

# 1. Introduction

E-commerce has emerged as a transformative global force, reshaping consumer access to products and services [1,2]. Its growth has been particularly notable post-COVID-19 as consumers increasingly turn to online platforms [3,4]. This expansion allows businesses, regardless of size, to tap into markets once beyond their reach, thereby contributing to the globalization and democratization of trade [5]. Advances in technology, including artificial intelligence, augmented reality, and blockchain, have further personalized and secured consumer experiences [6–9]. Thus, e-commerce is more than a passing trend; it is a fundamental aspect of modern economic dynamics and is imperative for developing countries like Brazil.

Brazilian e-commerce has been mirroring the growth trajectories of the world's largest economies, signaling a crucial shift in national consumption patterns [10,11]. This growth in Brazil is driven by increasing internet penetration and the widespread use of smartphones, which democratize access to the digital marketplace [12]. The rise of more user-friendly e-commerce platforms and a growing trust in online transactions are essential in this evolution, enabling a more comprehensive range of consumers to participate in the digital economy and enjoy its convenience, efficiency, and advantages [13]. The global health



Citation: Veiga, C.P.d.; Veiga, C.R.P.d.; Michel, J.d.S.S.; Di Iorio, L.F.; Su, Z. E-Commerce in Brazil: An In-Depth Analysis of Digital Growth and Strategic Approaches for Online Retail. J. Theor. Appl. Electron. Commer. Res. 2024, 19, 1559–1580. https:// doi.org/10.3390/jtaer19020076

Academic Editor: Ting Chi

Received: 9 April 2024 Revised: 11 June 2024 Accepted: 12 June 2024 Published: 15 June 2024



**Copyright:** © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). crisis intensified this trend as consumers increasingly sought digital channels for safe and convenient purchases [11,13]. Retail companies of various sizes, from large multinationals to local startups, have responded by diversifying their digital services, offering an extensive range of products and services from electronics to groceries [3].

The digital competition has spurred significant advancements in marketing channels [14], user experience, and payment options in Brazil, continually enhancing the ecommerce shopping experience [15]. These advancements include the optimization of delivery networks [16], the integration of artificial intelligence for personalized shopping experiences [7,8], and the adoption of secure, efficient payment gateways [17]. As a result, e-commerce platforms are becoming more user-friendly and reliable, attracting a broader range of consumers. E-commerce is establishing itself as a crucial sales channel in Brazil and a driver of socioeconomic change [13], contributing to increased consumer access, job creation, and economic growth [11]. The sector's evolution is also encouraging traditional businesses to innovate and adapt to digital transformations, further solidifying the importance of e-commerce in Brazil's economic landscape [18].

As the eighth-largest internet market worldwide, Brazil accounts for about 42% of B2C [Business-to-Consumer] e-commerce in Latin America, boasting 150 million users [19]. The Brazilian e-commerce sector has experienced a notable upward trajectory within less than two decades. 2019, it recorded around 148.4 million transactions, generating BRL 61.9 billion, marking a 16.3% increase from the previous year [14]. This trend continued, with revenues reaching BRL 87.4 billion in 2020 [41% growth] and BRL 161 billion in 2021 [a 27% increase]. ABComm projects revenues to hit BRL 169.59 billion in 2022 and anticipates a rise to BRL 186.7 billion in 2023, with projections reaching BRL 273 billion by the end of the following year [20]. The Brazilian Chamber of Electronic Commerce notes that categories like office, computer, and communication equipment lead in revenue, followed by furniture, household appliances, clothing, and footwear [21].

The pandemic has significantly altered consumption patterns [22]. A Mastercard study in 2021 indicated that 56% of consumers turned to online shopping, with 7% new to digital platforms. Furthermore, about 46% of existing e-commerce users increased online purchases [14]. Dunnhumby [23] found that 59% of these new digital consumers continued online shopping after their initial purchase.

As a result of this shift towards digital platforms, the legislative framework governing e-commerce in Brazil has become increasingly important. The framework is a critical factor shaping the sector's growth and development. Several key policies and regulations have been established to support and regulate online business activities, ensuring a balanced environment for consumers and businesses.

Enacted in 1990, the Consumer Protection Code [CDC] is a cornerstone of consumer rights protection in Brazil. It includes provisions that apply specifically to e-commerce, such as the right to information and privacy, and the ability to withdraw from a purchase within seven days [24]. These protections are fundamental in building consumer trust in online transactions. Approved in 2014, the Brazilian Civil Rights Framework for the Internet [Marco Civil da Internet] lays down the principles, guarantees, rights, and duties for internet users and providers in Brazil. It addresses key issues such as net neutrality, data protection, and privacy [25]. This law is particularly relevant for e-commerce as it ensures consumer data protection and mandates that internet service providers treat all data equally, preventing discriminatory practices.

Implemented in 2020, the General Data Protection Law [Lei Geral de Proteção de Dados—LGPD] aligns with international data protection standards. It imposes strict requirements on businesses regarding collecting, storing, and sharing personal data [26]. Compliance with the LGPD is crucial for e-commerce businesses to ensure the privacy and security of consumer data, thereby maintaining consumer confidence and trust. Issued in 2013, the E-Commerce Decree [Decreto do Comércio Eletrônico] specifically regulates electronic commerce activities in Brazil. It mandates that e-commerce platforms provide clear and accurate information about products, services, prices, and terms of sale [27]. It also

requires businesses to offer transparent mechanisms for handling consumer complaints and resolving disputes, enhancing transparency and accountability in the online marketplace.

These legislative measures collectively support the growth of e-commerce in Brazil by creating a secure and trustworthy environment for online transactions. By safeguarding consumer rights and ensuring data privacy, these laws help foster consumer confidence, which is essential for the sector's sustained growth [28]. However, compliance with these regulations also presents challenges, particularly for small and medium-sized enterprises [SMEs], which may need more resources to implement comprehensive data protection and compliance mechanisms [29]. Additionally, the continuous evolution of legal requirements necessitates ongoing adaptation by e-commerce businesses to remain compliant [30].

The evolution of Brazilian e-commerce is a complex, multi-dimensional phenomenon that demands in-depth technical and strategic analysis to forecast future trends [31]. Addressing this need, this article undertakes a comprehensive meta-narrative review of the e-commerce literature in Brazil, focusing on identifying emerging patterns and innovative trends in the sector. Through applying a convergence-coding matrix, the study delves into central themes such as consumer behavior, e-commerce infrastructure, product distribution, and environmental sustainability, aiming to derive strategic insights for enhancing online shopping management.

This article makes four pivotal contributions to the existing literature: Firstly, it introduces a meta-narrative that compiles and synthesizes e-commerce research in Brazil, offering valuable insights with theoretical and practical implications for management. Secondly, it organizes and categorizes articles into specific clusters, streamlining the extraction of insights crucial for the theory and practice of Brazilian e-commerce management. Thirdly, it underscores managerial implications, demonstrating how a website's quality significantly influences customer trust, satisfaction, and loyalty. Lastly, it illuminates a pathway for future research in e-commerce, setting the stage for continued exploration and understanding of this dynamic sector.

#### 2. Materials and Methods

The practice of conducting meta-narrative and systematic reviews is well established in the academic literature [32–37], serving as an essential tool to understand the established knowledge and identify research gaps [38]. This study adopts the meta-narrative review methodology, which is particularly effective for exploring themes with diverse conceptualizations across various research communities [32,39–41].

This article employs a three-step meta-narrative review process: [i] identification of relevant data sources and research, [ii] selection of studies based on defined eligibility criteria, and [iii] utilization of convergence coding to synthesize and interpret findings [42,43].

This rigorous and reflective meta-narrative approach, grounded in a protocol validated in the literature [39], excels in interpretatively synthesizing heterogeneous studies. It systematically outlines steps to ensure replicability, addressing the research question: "What insights can literature provide for e-commerce in Brazil from a managerial perspective?" This methodological approach, focusing on analytical insights, aims to contribute to theoretical development in the field [32,40].

Furthermore, it is essential to acknowledge that technological advancements and shifts in consumer behavior continually reshape e-commerce dynamics, necessitating ongoing updates in management strategies [44]. Thus, a well-executed meta-narrative analysis deepens the understanding of e-commerce trends, challenges, and opportunities, and empowers managers with comprehensive insights for more informed decision making.

#### 2.1. Data Sources and Selection and Eligibility Criteria

The articles for this study were selected using the Web of Science (WoS) database. WoS was chosen for its extensive coverage in social sciences, including econometrics and decision science, making it a reliable and diverse source for academic research [45]. Studies have shown that WoS provides comprehensive coverage of high-impact journals and peerreviewed articles, ensuring the inclusion of the most relevant and influential studies [46]. Using a single reputable database like WoS allows for a more controlled and systematic review process, ensuring consistency in selection criteria and data extraction methods, which is essential for maintaining methodological rigor and reproducibility [47]. Although WoS is comprehensive, we acknowledge the possibility of missing some relevant literature. However, the depth and quality of articles indexed in WoS sufficiently capture significant trends and developments in the field of e-commerce in Brazil.

The study did not impose any time restrictions for article selection, covering the period up to 2023. This approach allowed for a comprehensive and historical examination of the development of e-commerce in Brazil. All data were collected from WoS in May 2024.

For the article selection, the search string incorporated the keywords "e-commerce or electronic commerce" and "Brazil". The search focused on specific fields such as the title, abstract, and keywords to ensure relevance. This method aimed to identify scientific works explicitly addressing the topic of electronic commerce within the Brazilian context.

# 2.2. Convergence Coding

The corpus was analyzed using the convergence-coding matrix [32,39,47]. The networks and drawings were made using the draw.io software [https://www.drawio.com, accessed on 8 June 2024]. After selecting the articles, the study progressed to the convergencecoding matrix analysis stage. This primarily descriptive phase, which holds significant analytical potential, as outlined by [32], allowed for the derivation of in-depth insights. At this point, each article's central themes underwent a thorough analysis to create a consolidated list. This list was essential for comparing and analyzing aspects such as presence, frequency, and meaning, offering a multifaceted view of the investigated themes.

The themes were then aligned to form the lines of the convergence-coding matrix, which was a vital tool in synthesizing similarities and discrepancies among the selected articles [43]. Despite their broad scope, the articles were all categorized in the matrix based on their central theme, ensuring cohesive analysis.

A schematic diagram (see Figure 1) was prepared to represent this process visually, illustrating the steps from article selection to matrix construction, conclusions, and future research directions. This diagram aids in understanding the method used and highlights gaps in the existing literature and potential new subthemes for future exploration. This approach enriches the study, fosters a holistic understanding, and points towards innovative research avenues in Brazilian e-commerce. Initially, 101 articles were selected. The final textual composition consisted of 98 articles. The eligibility criteria are presented in Figure 1 [42,43].

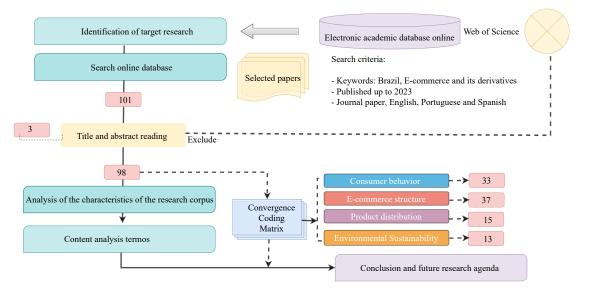


Figure 1. Diagram summarizing the meta-narrative review methodology [32,39,42,43].

Figure 1 outlines the methodological phases as per the established research protocol. In the initial stage, the rigorous application of the convergence-coding matrix identified four main thematic clusters for detailed analysis: (i) consumer behavior with 33 articles, (ii) e-commerce structure covering 37 articles, (iii) product distribution represented by 15 articles, and (iv) environmental sustainability consisting of 13 articles. These clusters, selected for their relevance and incidence in the dataset, highlight key areas of interest in the e-commerce literature.

# 3. Results and Discussion

# 3.1. Data Sources

Figure 1 details the process and steps for selecting articles from the WoS database, following the protocols proposed by [32,39–41]. The initial search identified 101 articles. In the first phase, two independent reviewers examined in detail each article's title, abstract, and keywords to ensure relevance to the predefined search terms. Adhering strictly to the eligibility criteria, a third reviewer was consulted for validation in cases of uncertainty. The second screening phase excluded articles not explicitly related to research in Brazil, narrowing the selection to 98 articles for the final textual corpus. The research time frame spanned from 2001, with the first publication, to 2023. The data revealed a notable increase in publications between 2018 and 2023. Figure 2 illustrates this trend, highlighting the growing academic interest in Brazilian e-commerce over the last 22 years.

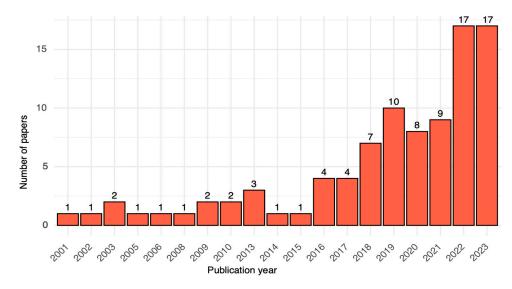


Figure 2. Number of articles published from 2001 to 2023.

A notable diversification emerged when analyzing the authorship of the 98 included studies. Six researchers—[48–53]—stood out, each contributing two articles on the covered topic, demonstrating a range of perspectives and expertise in the field. Among the selected articles, eight journals were particularly prominent, each publishing at least two. The journal "Sustainability" was the most prolific, with eight published articles, followed by "Research in Transportation Economics" (4), "Internet Research" (3), "Computers in Human Behavior" (2), "Global Trade and Customs Journal" (2), "Information Society" (2), "Revista Brasileira de Marketing" (2), "Work—A Journal of Prevention Assessment & Rehabilitation" (2), and "RBNE—Revista Brasileira de Nutrição Esportiva" (2). The prominence of these journals underscores their roles as key platforms for e-commerce discourse. Supplementary Materials lists all leading journals.

A significant aspect of some selected articles is their inclusion of comparative research, examining Brazilian e-commerce concerning other countries. This includes comparisons with Portugal [54,55], other South American nations [56,57], and BRICs member countries [58]. Such comparative approaches provide a global and contextualized perspective, enriching the analysis by situating Brazilian e-commerce within a broader international framework.

#### 3.2. Formation of the Convergence-Coding Matrix

Following the evaluation based on the selection and eligibility criteria, the articles underwent further analysis to identify relevant research and compile a comprehensive list of topics. Emphasis was placed on coding analysis, which was performed through collaborative discussions between the two reviewers. The primary objective of these discussions was to reach a consensus on the categories and subcategories that emerged from the articles.

Due to the extensive number of articles and the diversity of topics investigated, the information was organized through subclassifications. This strategy aimed to provide a more precise and detailed presentation of the theoretical findings. The analyses were conducted qualitatively, focusing exclusively on the concepts presented in the research.

The articles selected within each subtheme of the coding matrix were examined to extract valuable insights that could contribute to the academic marketing literature, particularly from the perspective of e-commerce management in Brazil. Based on the selected textual corpus (n = 98), four prominent themes were identified in the formation of the convergence-coding matrix: (i) consumer behavior, (ii) e-commerce structure, (iii) product distribution, and [iv] environmental sustainability. Figure 3 and Table 1 illustrate and describe these themes, providing an organized and concise view of the four clusters and their related subthemes within electronic commerce.

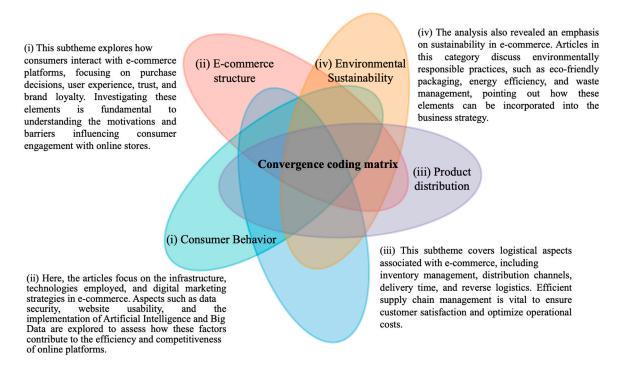
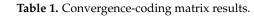


Figure 3. Initial convergence-coding matrix.

To enhance the robustness and accuracy of the analysis, each cluster and its subthemes were thoroughly investigated. The main findings, emerging trends, and significant contributions from the categorized articles were exhaustively examined and contextualized. At this stage, the convergence-coding matrix was employed as an effective tool for synthesizing and visually representing the identified themes. This method, stemming from a rigorous convergence-coding process, facilitated the systematic organization and categorization of the collected information. The visual representation and tabulation of these data are detailed in Figure 4 and Table 1, providing a clear and structured understanding of the multiple dimensions explored within the selected textual corpus.

Convergence-Coding Matrix	Subclassification	References
	Factors that can influence or act as barriers to digital	
Consumer Behavior	consumer behavior	[54,55,58–77];
	(22 papers)	
(33 papers)	Specific products and services that bring additional	
	challenges to e-commerce	[9,67,78–80];
	(05 papers)	
	General issues related to the conduct of digital consumer	
	behavior research	[81–86];
	(06 papers)	
	New structure provided by e-commerce	
E-commerce Structure	(09 papers)	[51,56,87–93];
(37 papers)	Structural innovations in measuring e-commerce	
	performance	[10,53,70,81,94–109].
	(20 papers)	
	Examples of traditional structures modified by e-commerce	[110–117];
	(08 papers)	[110-117],
Product Distribution	Trend of product distribution and optimization	[9,31,49,50,118–129].
(15 papers)	Trend of product distribution and optimization	[2,31,42,30,110-129].
Environmental Sustainability	Environmental and regulatory impacts	[18,48,51,130–139]
(13 papers)	Environmental and regulatory impacts	



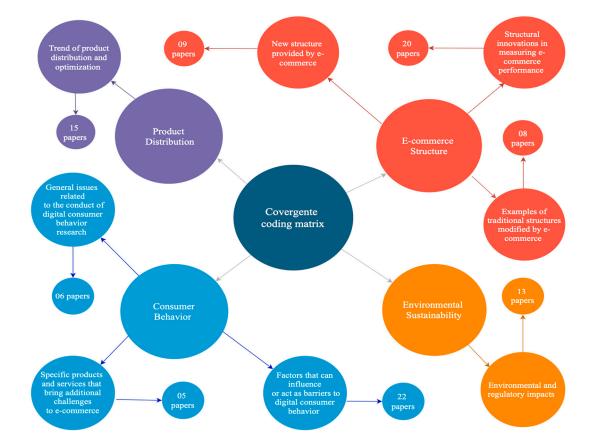


Figure 4. Final convergence-coding matrix.

As presented in Table 1 and illustrated in Figures 3 and 4, the theme (i) "consumer behavior" is represented in the blue cluster. The (ii) "e-commerce structure" is illustrated in the red cluster, while (iii) "product distribution" is highlighted in the purple cluster. Lastly, [iv] "environmental sustainability" is depicted in the orange cluster. The articles included in the final textual corpus are comprehensively detailed in Supplementary Materials.

## 3.3. Articles Classified in the "Consumer Behavior" Cluster

In the blue cluster depicted in Figure 4, 33 studies concentrate on "consumer behavior", offering three critical perspectives essential for strategic e-commerce management in Brazil. The first perspective, "Influencing Factors and Barriers to Digital Consumption", investigates variables that affect, encourage, or deter online shopping. This includes an in-depth look at platform trust, ease of use, privacy and security concerns, and user experience. The second perspective, "Challenges Associated with Specific Products and Services", focuses on the unique obstacles in e-commerce for complex or high-value products, addressing the necessary logistics and marketing strategies. Lastly, the "General Aspects of Digital Consumer Behavior Research" perspective explores methodological and conceptual challenges in studying online consumer behavior. This includes best practices for research in this field and an analysis of emerging trends and behavior patterns.

# 3.3.1. Factors That Can Influence or Serve as a Barrier to Digital Consumer Behavior

At this stage of the meta-narrative analysis, the focus is on factors that influence or impede digital consumer behavior within the e-commerce context. Numerous studies (22 papers) have identified key determinants of online purchasing behavior, including website-related aspects, pricing, and brand or store reputation [66]. These primary factors are detailed in Table 2.

Table 2. Main factors that can influence or serve as barriers to digital consumer behavior.

Technical and Technological Aspects	The research underscores the critical role of technological and design elements in accepting and using e-commerce platforms [75]. Robust technical support is essential to ensure website usability and reliability, as highlighted in studies by [54,60]. Additionally, the perceived quality of a website significantly impacts various aspects of consumer trust, including transaction security and data privacy. Consumer perceptions of utilitarian and hedonic value also impact customers' intention to use service robots and other e-commerce technologies [76].
Cultural Adaptation and Contextualization	The necessity of culturally adapting international websites is apparent, as it significantly influences user attitudes and purchase intentions [60]. Comparative studies [54,58,62,64,67] illustrate behavioral variations among online consumers from countries like Brazil, Portugal, Spain, the USA, Russia, and other BRIC nations. Despite these findings, the representation of cultural characteristics on B2C websites remains insufficient, as noted by [55]. It is also possible to notice cultural changes in the purchasing behavior of Brazilian consumers
Price Sensitivity and Transactional Practices	post-pandemic. Research shows a notable price sensitivity among consumers who frequently shop online [59]. Factors such as competitive pricing, product variety, and incentives like free shipping have spurred Brazilian consumers to increasingly utilize Chinese e-commerce websites [68]. Furthermore, analyses of e-marketplaces indicate that premium pricing is influenced by factors like seller reputation, product attributes, and marketing strategies [65]
Customer Engagement and Relationship Strategies	E-commerce companies must prioritize building and reinforcing their brand and website, offering competitive pricing, and ensuring secure transactions [66]. Implementing customer-centric strategies, such as personalization and social media engagement, is also vital [62,74]. In Brazil, the trust and loyalty fostered by these approaches can significantly boost a brand's or website's word-of-mouth promotion [54,61,140]. Satisfactorily fulfilling the order at the moment of online shopping [72] and service recovery satisfaction [71] also can increase repurchase intentions and reduces third-party complaints and negative word-of-mouth.
Security and Technology Adoption	Distrust remains a challenge in e-commerce, yet factors like inadequate physical security have boosted the appeal of online shopping and home deliveries [69]. In mobile banking [MB] technologies, security and trust are paramount for user adoption. Transparently communicating security measures can reduce perceived risks and enhance user confidence in these platforms [63]. Additionally, the perceived quality of a website significantly impacts various aspects of consumer trust, including transaction security and data privacy [77].

Understanding these factors is imperative for both professionals and academics, as it enables the development of strategies tailored to the needs and expectations of digital consumers. This alignment is essential for enhancing the user experience and promoting sustainable growth in e-commerce.

3.3.2. Specific Products and Services That Bring Additional Challenges to E-Commerce

Despite its dynamic and ever-evolving nature, e-commerce presents specific challenges when dealing with certain products and services. These challenges often stem from the unique characteristics of the products and the expectations of consumers. Table 3 outlines the products and services that exhibit additional complexities in the e-commerce context.

Table 3. Specific products and services that bring additional challenges to e-commerce.

Challenges in the Fashion and Accessories Sector	In the online apparel sector, encompassing clothing and accessories, significant challenges arise in the shopping experience. Consumers often prefer physical interaction with these products to assess attributes like texture and fit, which are challenging to convey digitally. The Brazilian clothing industry's lack of size standardization further complicates online shopping, potentially leading to unsatisfying experiences. When such aspects are not effectively managed on digital platforms, whether accessed via smartphone or computer, they can detrimentally affect the consumer experience [78]. In specialized categories like wedding and party dresses, it is crucial to categorize and comprehend consumer behavior, analyzing transaction trends and the seasonal dynamics of e-commerce [67].	
E-Government and Digital Skills	Delivering electronic government services presents its own set of challenges. Consumers of these services need specific digital skills, including the use of email, searching for goods and services through e-commerce platforms, and utilizing online financial services. These skills are primarily enabled by internet access in the home and professional settings, which are preferred over public access points like internet cafes and telecenters [79].	
Trust in Election Technology	Trust in the technologies implemented in electoral processes is a critical aspect. Since the adoption of electronic voting in the 1990s, the trust placed in the technological	
Trust in Election Technology	The basic characteristics of the product show challenges that have not yet been overcome for the virtual sale of the product. Entering product price descriptions and detailed specifications may change this status [9].	

These scenarios highlight the need for e-commerce strategies to be precisely tailored to the specific nature of the products or services offered. By thoroughly analyzing consumer expectations and integrating innovative technologies and practices, it is possible to address the unique challenges inherent in these segments, thereby enhancing the overall effectiveness of e-commerce.

# 3.3.3. General Questions Linked to Conducting Digital Consumer Behavior Research

Research into digital consumer behavior has significantly broadened in scope and depth. Many studies within the "consumer behavior" cluster seek to elucidate various facets of conducting research in this domain. A critical evaluation and validation of tools and methodologies are essential for obtaining accurate and actionable insights into consumer behavior. Table 4 presents the key questions pertinent to researching digital consumer behavior.

Investigating digital consumer behavior necessitates a precise and customized approach, employing validated tools and methodologies that address the specific characteristics of the digital landscape. The ongoing advancement and refinement of these instruments are essential for accurately capturing and comprehending digital retail consumer behavior patterns and expectations within their unique context. Table 4. General questions linked to conducting digital consumer behavior research.

Comparison of Website Quality Scales	A comparative analysis of various psychometric scales is crucial for accurately assessing website quality. For instance, a study involving the Brazilian populace evaluated the effectiveness of the e-TailQ scale and the ES-Qual scale. The findings indicated that the e-TailQ scale is more adept at measuring customer satisfaction, loyalty, positive word-of-mouth promotion, and repurchase intention in the Brazilian context [84]. Such research underscores the importance of ensuring that the tools for analyzing digital consumer behavior are validated and tailored to specific cultural and economic environments, and are pplicable to the specific cultural and economic context.
Validation of Frameworks for Online Customer Experience	Validating specific frameworks for measuring the digital shopping experience is crucial to consumer behavior research. A study in Brazil endorsed using the Online Customer Experience framework for analyzing the shopping experience in digital contexts. The research [85] underlines the importance of adapting and validating research instruments to suit the local context, ensuring their relevance and accuracy.
Analysis of Marketing Orientation Behaviors	Research indicates that Information Technology [IT] applications are invaluable in analyzing digital consumer behaviors related to marketing orientation. Utilizing these applications facilitates understanding consumption patterns and trends, thereby aiding in developing more effective marketing strategies [86]. The recent literature suggests that merchants' failure to attract customers' attention [82] and negative experiences are the biggest barriers to e-commerce use [51,81]. Firms operating in service sectors generally demand higher levels of business awareness competences than those in manufacturing sectors [83].

3.4. Articles Classified in the "E-Commerce Structure" Cluster

1. 2. 3. 4.	As shown in Table 1 and illustrated in Figures 3 and 4, the "e-commerce structure" theme, represented by the red cluster, encompasses 22 categorized articles. These studies offer three distinct types of managerial insights for e-commerce in Brazil: The reconfiguration of business structures due to e-commerce; Innovations in measuring and enhancing e-commerce performance; Transformations in traditional business structures influenced by e-commerce.
	Table 5 details the insights derived from these studies concerning the e-commerce ucture in Brazil.
The reconfiguration of business structures due to e-commerce	The research presents a historical analysis of retail evolution in Brazil, focusing on the transformative impact of new technologies and the resulting pursuit of innovative structures for entertainment and shopping experiences [89]. Ref. [90] highlights how income redistribution among the Brazilian population presents opportunities and challenges for marketing professionals, particularly in franchising and e-commerce, amidst issues like inadequate logistics and corruption. Furthermore, the literature sheds light on factors influencing the internationalization of Brazilian e-commerce, such as logistical infrastructure similarities among Latin American countries [56]. Studies also emphasize the role of e-business policies in shaping national infrastructure, affecting the sector's capacity and value [87,88,92]. Additionally, new payment systems have revolutionized the economy, introducing novel social and financial actors to the economic landscape [57].

# Table 5. Cont.

Innovations in measuring and enhancing e-commerce performance	The literature suggests that structural innovations in e-commerce are often driven by market opportunities [97,101], with suppliers playing a pivotal role in introducing new features [102]. Research based on the Toyota Production System analyzes losses in e-commerce processes, pinpointing flaws that impact profitability [103]. Big Data Analytics [105], virtual reality technology [94], and other technologies [98] are employed to gain insights into consumer behavior [105], and the "Electronic Commerce Level Index" [ECLI] is used to evaluate B2C e-commerce performance [106]. Additionally, the implementation of gamification and enhancements in website information are explored as strategies [107,108]. The significant effects of the COVID-19 pandemic on sales strategies are also noted [10,53,81,95,96,99,100], alongside the growing necessity for omnichannel strategies [70].	
Transformations in traditional business structures influenced by e-commerce	The literature underscores the significant role of the internet and technology in fostering virtual communities centered on learning [113,114]. E-learning technologies facilitate access to knowledge for a broad audience, thereby promoting digital and job market inclusion [115]. Furthermore, studies have discussed techniques for government regulation of electronic commerce in pharmaceutical products, focusing on the oversight and analysis of pharmacological formulations [116,117]. The recent literature evaluates the economic feasibility of a e-commerce platform to small/medium-scale companies or initiatives [110,111] and the adaptations of home delivery apps for use of visually impaired people [112].	
3.5.	Articles Classified in the "Product Distribution" Cluster	
the	In Figure 4's purple cluster, nine articles are categorized under the product distribution me. These studies examine different aspects of delivering products sold online in Brazil. e details of these discussions are presented in Table 6.	
Tab	le 6. Different aspects related to the delivery of products sold online in Brazil.	
Concentration in Large Companies	E-commerce in Brazil tends to be dominated by large companies with an established retail presence. A contributing factor to this trend is the scarcity of high-quality distribution services, which poses a significant hurdle for smaller businesses. To address this, some studies, such as those by [123], recommend leveraging intercity bus lines as a logistical solution for rapid shipments. The key challenge lies in establishing an effective logistics network that integrates these bus services, aligning with online consumers' delivery expectations.	
Direct Delivery to Consumer	Direct home delivery is a prevalent practice for e-commerce products in Brazil, but it often leads to multiple failed delivery attempts attempts [119–122]. To address this issue, the implementation of "delivery lockers" has been proposed as a way to minimize delivery failures and streamline the process [31]. According to [124], lockers can also reduce the distance covered by delivery trucks and decrease the number of required vehicles. Another viable option is establishing collection points. Research by [125] indicates that 92% of digital consumers would opt for	
Automatic Delivery Stations	this method if it offered reduced costs and shorter delivery times. Despite the prevailing preference for home delivery, automatic delivery stations show potential for significant demand, as de [126] noted. These insights are crucial for informing public policies and identifying logistical innovations tailored to specific urban contexts.	
Last-Mile Delivery [LMD]	The social, environmental, and economic impacts of last-mile delivery [LMD] are examined. Ref. [127] conducted a study evaluating the distribution strategy of a postal company in Rio de Janeiro, proposing sustainable alternatives like electric tricycles for deliveries. Additionally, ref. [50] emphasize the effectiveness of non-motorized and collaborative delivery methods as LMD solutions. The application of LMD in Brazilian favelas is also discussed, underscoring the need for distribution solutions tailored to local contexts, as explored by Duarte et al. 128. Recent literature shows the role of robbery in the LMD of e-commerce [135] and new mathematical models to support decision making [9,120].	
Route Planning Using Drones	Research studies have delved into mathematical and heuristic approaches for optimizing delivery routes in a multimodal system incorporating trucks and unmanned aerial vehicles [UAVs]. Ref. [129] demonstrates that these methods can significantly reduce waiting times for e-commerce customers in Brazil.	

## 3.6. Articles Classified in the "Environmental Sustainability" Cluster

As shown in Table 1 and depicted in Figure 4 the orange cluster comprises five articles under the "environmental sustainability" theme. These studies explore the environmental impacts associated with technological advancements and e-commerce practices. The specific characteristics of these impacts are detailed in Table 7.

**Table 7.** Aspects related to the environmental impact generated by technological advances and e-commerce practices.

Energy Consumption and CO <sub>2</sub> Emissions	The surge in demand for technologies like social networks, e-commerce, and cloud computing has led to a significant increase in energy consumption for data storage and management, with notable environmental and economic repercussions. A 2020 study by [28] revealed that Brazil emitted 8459 tons of CO <sub>2</sub> in 2014, a substantial amount, albeit lower in terms of volume and operational cost than China and the United States. Furthermore, research employing models to thoroughly evaluate the sustainability, cost, and reliability of power and cooling infrastructures in data centers has been conducted in Brazil and the United States [48]. The recent literature also shows opportunities related to improvement in the decarbonization strategies of the logistics sector [131,134].
Illegal Trade in Biological and illegal Products	From an environmental perspective, e-commerce in Brazil inadvertently facilitates the illegal trade of biological organisms [132]. Despite Brazilian laws prohibiting the commercialization and distribution of living or dead organisms via e-commerce, instances of digital smuggling persist. This includes the illicit trade of plants [137], aquarium species [138], and fish from the Atlantic Forest [139] to various regions of the country. Additionally, research points out that not all species involved in these seizures are native to Brazil, posing risks of bioinvasion. These studies recommend that Brazilian authorities enhance the monitoring of smuggled species and improve regulations governing e-commerce sales to better protect the environment. It is also important to mention that negligence by companies in providing information about the safety of using pesticides and by public authorities in supervising this activity has had important impacts on the commercialization of such substances via e-commerce [141]. Finally, the literature shows the critical need for internet-based biosurveillance to describe the Brazilian e-commerce of non-inspected dairy products [130] and other food products [133,135,136].

## 4. Proposing a Future Research Agenda

The topics explored in this study offer pivotal insights into the current state and emerging opportunities in the e-commerce sector in Brazil and markets with similar dynamics. Such information is vital for developing savvy business strategies and crafting public policies based on robust data. Table 8 lists ten areas that could be more extensively explored in the existing literature. This outlines a future research agenda to investigate and enhance our understanding of the e-commerce sector across various global markets. Table 8 shows the proposal for a future research agenda.

Table 8. Proposing a future research agenda.

Agenda 1	Expansion of E-Commerce in Less Developed Regions	<ul> <li>Investigate the growth and challenges of e-commerce in less urbanized and developed regions of Brazil.</li> <li>Assess the impact of local infrastructure, including logistics and internet access, on the adoption of e-commerce.</li> </ul>
Agenda 2	Sustainability and E-Commerce	<ul> <li>Examine sustainable practices within Brazilian e-commerce, focusing on ecological packaging and reverse logistics.</li> <li>Evaluate the environmental impact of rapid delivery services and explore eco-friendly solutions for 'last mile' logistics.</li> </ul>

# Table 8. Cont.

Technological Innovations and New Forms of Electronic Commerce	<ul> <li>Analyze the adoption and integration of emerging technologies, including augmented reality, blockchain, and artificial intelligence, in the Brazilian e-commerce landscape.</li> <li>Investigate emerging business models in e-commerce, such as decentralized marketplaces and social commerce, and their impact in Brazil.</li> </ul>
Consumer Behavior and Personalization	<ul> <li>Explore the impact of personalized online experiences on the purchasing behavior of Brazilian consumers.</li> <li>Assess consumer expectations around privacy and security in relation to the use of their personal data in e-commerce settings</li> </ul>
Logistical Challenges and "Last Mile"	<ul> <li>Examine the unique challenges associated with "last mile" logistics in Brazil, taking into account geographic and infrastructural factors.</li> <li>Propose innovative solutions to enhance delivery efficiency, including using drones, lockers, and collaborations with local businesses.</li> </ul>
Digital Inclusion and Accessibility	<ul> <li>Evaluate the accessibility of Brazilian e-commerce websites for individuals with disabilities.</li> <li>Investigate strategies to foster digital inclusion, ensuring that e-commerce platforms are accessible to all users.</li> </ul>
Impact of Regulation and Public Policies	<ul> <li>Examine the influence of government policies and regulations on the development of e-commerce in Brazil.</li> <li>Investigate how tax policies and consumer protection laws affect trust in and adoption of e-commerce.</li> </ul>
E-Commerce and Small and Medium Enterprises [SMEs]	<ul> <li>Analyze the role and challenges of Small and Medium Enterprises [SMEs] in the Brazilian e-commerce market.</li> <li>Identify the barriers and opportunities for SMEs entering or expanding in the online marketplace.</li> </ul>
Health and Safety in E-Commerce	<ul> <li>Investigate the prevalence and effects of counterfeit or illegal products in online sales.</li> <li>Evaluate strategies to ensure the security and authenticity of products sold through e-commerce platforms.</li> </ul>
International Comparative Analysis	<ul> <li>Carry out comparative studies between e-commerce in Brazil and other emerging countries.</li> <li>Identify global practices that can be adapted or improved in the Brazilian context.</li> </ul>
Country's Physical and Digital Infrastructure	• Investigating how a country's physical and digital infrastructure influences e-commerce performance, providing a clearer perspective on logistical challenges, and examining how government policies and the involvement of local actors can support the development of an environment of sustainable and competitive e-commerce.
	and New Forms of Electronic Commerce         Consumer Behavior and Personalization         Logistical Challenges and "Last Mile"         Digital Inclusion and Accessibility         Impact of Regulation and Public Policies         E-Commerce and Small and Medium Enterprises [SMEs]         Health and Safety in E-Commerce         International Comparative Analysis         Country's Physical and

# 5. Final Considerations

This article aimed to construct a meta-narrative to qualitatively evaluate key themes in Brazilian e-commerce research and identify insights for strategic online purchase management. Methodologically, the study was rigorously conducted in three phases: identifying relevant research, selecting studies, and applying a convergence-coding matrix for analysis.

The study contributed significantly to the literature on electronic commerce in Brazil in four ways. Firstly, it introduced a meta-narrative that compiles and synthesizes research on e-commerce in Brazil, generating valuable insights with both theoretical and practical implications for management. Secondly, it organized and classified articles into subtopics, revealing valuable insights into Brazilian e-commerce management theory and practice. This process identified four new clusters: consumer behavior, e-commerce structure, product distribution, and environmental sustainability.

Each cluster offered unique insights. The "consumer behavior" cluster uncovered managerial insights about influencing factors, challenges posed by specific products and services, and general issues in researching digital consumer behavior. The "e-commerce structure" cluster provided insights into reconfiguration, structural innovations, and transformation of traditional structures due to e-commerce. The "product distribution" cluster revealed a tendency for centralization in larger companies and suggested innovative logistical solutions like intercity bus lines for fast deliveries. The "environmental sustainability" cluster emphasized the increased energy consumption due to emerging technologies.

The third contribution highlighted the direct impact of website quality on customer trust, satisfaction, and loyalty and the influence of cultural context on online consumer behavior. It underscored the importance for companies in e-commerce to build strong brands, offer competitive pricing, and maintain robust security infrastructures. The fourth contribution proposed a future research agenda, outlining ten areas yet to be fully explored in the literature, aiming to deepen global understanding of the e-commerce sector.

#### Theoretical Implications

The findings of this study provide several significant theoretical implications. Firstly, identifying key determinants such as trust in the platform, ease of use, privacy, and security perceptions contributes to the theoretical understanding of consumer behavior in digital contexts, especially in emerging markets like Brazil. Addressing the unique challenges associated with high-complexity or high-value products enriches theories on product differentiation and consumer decision making in e-commerce. Furthermore, validating measurement frameworks like e-TailQ and ES-Qual within the Brazilian context enhances the tools available for studying digital consumer behavior globally.

Regarding the structure of e-commerce, the reconfiguration of business operations in response to technological advancements informs theoretical models of digital transformation and organizational adaptation. Introducing performance measurement tools such as Big Data Analytics and the Electronic Commerce Level Index (ECLI) advances theoretical frameworks for evaluating e-commerce success. Insights into how government policies shape the e-commerce landscape underscore the importance of regulatory environments in theoretical discussions on market regulation.

Regarding product distribution, exploring innovative logistical solutions like delivery lockers and intercity bus lines provides theoretical insights into supply chain management in e-commerce, contributing to broader theories on last-mile delivery and the logistical complexities unique to emerging markets. Emphasizing sustainable practices in logistics, such as using electric tricycles and non-motorized delivery methods, adds to the theoretical discourse on environmental sustainability in e-commerce.

Analyzing the environmental impact of e-commerce operations, particularly regarding energy consumption and CO<sub>2</sub> emissions, supports the development of theoretical models that integrate sustainability into the study of digital economies. Examining how e-commerce platforms facilitate illegal trade in biological products adds a new dimension to the theoretical exploration of digital market ethics and regulatory frameworks.

#### 6. Conclusions

This article analyzed Brazil's rapidly expanding e-commerce sector, emphasizing its significant growth and evolving dynamics. Utilizing a meta-narrative review and a convergence-coding matrix, this study systematically integrated findings from the existing literature to identify critical industry patterns. The analysis reveals four pivotal clusters: consumer behavior, e-commerce structure, product distribution, and environmental sustainability. These elements collectively offer a thorough understanding of Brazil's current and future e-commerce directions.

The study underscores the necessity for strategies responsive to changing consumer behaviors, technological advancements, and environmental concerns. It highlights the importance of the Electronic Commerce Level Index as a practical tool for assessing B2C e-commerce performance. It emphasizes the critical role of comprehensive product information and personalized recommendations in enhancing the online customer journey.

The COVID-19 pandemic has profoundly influenced the retail landscape, accelerating the growth of e-commerce both globally and in Brazil. This shift has led to significant changes in product and service sales, with many consumers transitioning from physical to online retail. The study identifies a major challenge for smaller companies: the need for high-quality distribution services. Innovative solutions such as delivery lockers and intelligent distribution systems offer potential economic and environmental benefits by reducing delivery failures and optimizing shipping routes.

Moreover, the research advocates for e-commerce as a vehicle for digital inclusion, calling for policies that promote equitable access to online markets. This highlights the broader socio-economic importance of e-commerce, suggesting a path forward for stakeholders to shape a more inclusive and sustainable e-commerce ecosystem. These findings furnish practical insights for enhancing online retail consumer engagement, logistical efficiency, and sustainability, offering a roadmap for future industry developments.

## Limitations of the Study

While this study provides valuable insights into the e-commerce landscape in Brazil, several limitations should be acknowledged. First, the literature review covers studies up to 2023. Despite capturing significant developments, particularly the impact of the COVID-19 pandemic, more recent research from 2024 onwards is not included. Future studies should incorporate the latest data to provide a more current perspective. Second, this study primarily relied on the Web of Science (WoS) database [142–144]. Although WoS is comprehensive and reputable, it excludes potentially relevant studies indexed in other databases such as Scopus, Google Scholar, and EBSCOhost. Expanding the search to include these databases could offer a broader and more diverse range of literature.

Third, the study focuses on e-commerce in Brazil, which may limit the generalizability of the findings to other contexts. Comparative studies involving other emerging markets or developed countries could provide a more global understanding of e-commerce dynamics. Fourth, the results were organized into four main themes: consumer behavior, e-commerce structure, product distribution, and environmental sustainability. While these themes are comprehensive, there may be other relevant areas, such as digital payment systems and cybersecurity, that were not extensively covered.

Fifth, while effective for synthesizing diverse studies, the meta-narrative review and convergence-coding matrix may be subject to biases in article selection and coding processes. Ensuring rigorous and transparent methodologies in future research can mitigate these biases. Finally, the fast-paced nature of technological advancements in e-commerce means that findings can quickly become outdated. Continuous updates and longitudinal studies are necessary to keep pace with ongoing changes in technology and consumer behavior.

**Supplementary Materials:** The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/jtaer19020076/s1.

Author Contributions: C.P.d.V., C.R.P.d.V., J.d.S.S.M., L.F.D.I. and Z.S. conceived the work, reviewed the literature, and drafted and edited the manuscript. All authors have read and agreed to the published version of the manuscript.

**Funding:** National Council for Scientific and Technological Development [CNPq], Brazil, Research grant number 312023/2022–7.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data are available upon reasonable request.

Acknowledgments: The authors wish to express their gratitude to the editor and reviewers for their constructive input and kind feedback.

Conflicts of Interest: The authors declare that they have no competing interests.

# References

- 1. Maseeh, H.I.; Nahar, S.; Jebarajakirthy, C.; Ross, M.; Arli, D.; Das, M.; Rehman, M.; Ashraf, H.A. Exploring the privacy concerns of smartphone app users: A qualitative approach. *Mark. Intell. Plan.* **2023**, *41*, 945–969. [CrossRef]
- Büchel, E.; Spinler, S. The impact of the metaverse on e-commerce business models—A delphi-based scenario study. *Technol. Soc.* 2024, 76, 102465. [CrossRef]
- 3. Statista. Global Retail e-Commerce Sales 2014–2025. 2022. Available online: https://www.statista.com/statistics/379046 /worldwide-retail-e-commerce-sales/ (accessed on 2 November 2023).
- 4. Gupta, A.S.; Mukherjee, J.; Garg, R. Retailing during the COVID-19 lifecycle: A bibliometric study. *Int. J. Retail. Distrib. Manag.* **2023**, *11*, 1413–1476. [CrossRef]
- 5. World Trade Organization. E-Commerce, Trade and the COVID-19 Pandemic. 2020. Available online: https://www.wto.org/ english/tratop\_e/covid19\_e/ecommerce\_report\_e.pdf (accessed on 2 November 2023).
- 6. Accenture. Technology Trends 2021. Available online: https://www.accenture.com/us-en/insights/technology/technology-trends-2021 (accessed on 24 April 2024).
- Su, Z.; Bentley, B.L.; McDonnell, D.; Ahmad, J.; He, J.; Shi, F.; Takeuchi, K.; Cheshmehzangi, A.; da Veiga, C.P. 6G and Artificial Intelligence Technologies for Dementia Care: Literature Review and Practical Analysis. *J. Med. Internet Res.* 2022, 24, e30503. [CrossRef] [PubMed]
- 8. Lucas, G.A.; Lunardi, G.L.; Dolci, D.B. From e-commerce to m-commerce: An analysis of the user's experience with different access platforms. *Electron. Commer. Res. Appl.* **2023**, *58*, 101240. [CrossRef]
- 9. Alves de Araújo, F.; Mendes dos Reis, J.G.; Terra da Silva, M.; Aktas, E. A Fuzzy Analytic Hierarchy Process Model to Evaluate Logistics Service Expectations and Delivery Methods in Last-Mile Delivery in Brazil. *Sustainability* **2022**, *14*, 5753. [CrossRef]
- 10. Anacleto, A.; de Araújo Bornancin, A.P.; Mendes, S.H.C.; Scheuer, L. Between Flowers and Fears: The New Coronavirus Pandemic [Covid-19] and the Flower Retail Trade. *Ornam. Agric.* **2021**, *27*, 26–32. [CrossRef]
- 11. Ferraz, R.M.; da Veiga, C.P.; da Veiga, C.R.P.; Furquim, T.S.G.; da Silva, W.V. After-Sales Attributes in E-Commerce: A Systematic Literature Review and Future Research Agenda. *J. Theor. Appl. Electron. Commer. Res.* **2023**, *18*, 475–500. [CrossRef]
- 12. Pitta, G.B.; Pereira da Veiga, C.; Kaczam, F.; Su, Z.; Vieira da Silva, W. Reviewing the scientific literature of the barriers to online purchases. *Int. J. Bus. Forecast. Mark. Intell.* 2024, *9*, 80–102. [CrossRef]
- 13. Sociedade Brasileira de Varejo e Consumo. 2023. Available online: http://www.sbvc.com.br (accessed on 1 February 2024).
- 14. E-Bit. 2023. Available online: http://www.ebit.com.br (accessed on 1 February 2024).
- Furquim, T.S.G.; da Veiga, C.P.; Veiga, C.R.P.d.; Silva, W.V.d. The Different Phases of the Omnichannel Consumer Buying Journey: A Systematic Literature Review and Future Research Directions. *J. Theor. Appl. Electron. Commer. Res.* 2023, *18*, 79–104. [CrossRef]
   ABComm. 2022. Available online: http://www.abcomm.org (accessed on 1 February 2024).
- 17. Hassan, M.A.; Shukur, Z.; Hasan, M.K. An Efficient Secure Electronic Payment System for E-Commerce. *Computers* 2020, *9*, 66. [CrossRef]
- 18. Almeida, S.F.; de Moura Leite, A.O.; de Castro Lima, L.; de Oliveira, P.H. Dinâmicas do Varejo no Brasil: Produtividade e o Período Pós-Pandemia. *Rev. Do IBRAC* 2023, *1*, 87–116.
- 19. eMarketer. 2019. Available online: http://www.emarketer.com (accessed on 12 December 2023).
- Valor Econômico. Faturamento do E-Commerce Deve Aumentar 10% em 2023. Available online: https://valor.globo.com/ patrocinado/dino/noticia/2023/05/08/faturamento-do-e-commerce-deve-aumentar-10-em-2023.ghtml (accessed on 13 December 2023).
- 21. Mccenet. 2020. Available online: https://www.mccenet.com.br/categorias (accessed on 12 January 2024).
- 22. Michel, J.; da Veiga, C.; da Veiga, C.R. Metanarrativa sobre E-commerce no Brasil. *An. Do Simpósio Sul-Mato-Grossense Adm.* 2021, 4, 325–341.
- Dunnhumby. Six Months on, How Have Consumer Behaviours Changed as a Result of COVID-19? 2020. Available online: https: //customerfirst.dunnhumby.com/six-months-on-how-have-consumer-behaviours-changed-as-a-result-of-covid-19 (accessed on 12 January 2024).
- 24. Brasil. Código de Defesa do Consumidor. 1990. Available online: http://www.planalto.gov.br/ccivil\_03/leis/l8078.htm (accessed on 12 January 2024).
- 25. Brasil. Marco Civil da Internet. 2014. Available online: http://www.planalto.gov.br/ccivil\_03/\_Ato2011-2014/2014/Lei/L12965 .htm (accessed on 20 January 2024).
- 26. Brasil. Lei Geral de Proteção de Dados. 2018. Available online: http://www.planalto.gov.br/ccivil\_03/\_Ato2015-2018/2018/Lei/ L13709.htm (accessed on 3 April 2024).

- Brasil. Decreto do Comércio Eletrônico. 2013. Available online: http://www.planalto.gov.br/ccivil\_03/\_Ato2011-2014/2013/ Decreto/D7962.htm (accessed on 3 April 2024).
- 28. Ferreira, J.; Silva, R.; Almeida, P. E-commerce and Consumer Protection in Brazil. J. Digit. Commer. 2020, 12, 45–58.
- 29. Silva, M.; Oliveira, L. Challenges for SMEs in Complying with E-commerce Regulations. Braz. Bus. Rev. 2019, 16, 22–38.
- 30. Rodrigues, T. Legal Developments in Brazilian E-commerce. Law Digit. Econ. 2021, 5, 33-47.
- Mendonça Júnior, D.; Dallagnol, M.F.; Martins, V.Q.; Freitag, V.C. Evaluation of e-commerce systems: Comparative study before and during the COVID-19 pandemic in Brazil. *JISTEM-J. Inf. Syst. Technol. Manag.* 2023, 20, e202320002. [CrossRef]
- 32. Greenhalgh, T.; Robert, G.; Macfarlane, F.; Bate, P.; Kyriakidou, O.; Peacock, R. Storylines of research in diffusion of innovation: A meta-narrative approach to systematic review. *Soc. Sci. Med.* **2005**, *61*, 417–430. [CrossRef] [PubMed]
- Tranfield, D.; Denyer, D.; Smart, P. Towards a methodology for developing evidence-informed management knowledge by means of systematic review. Br. J. Manag. 2003, 14, 207–222. [CrossRef]
- Kraus, S.; Breier, M.; Dasí-Rodríguez, S. The art of crafting a systematic literature review in entrepreneurship research. Int. Entrep. Manag. J. 2020, 16, 1023–1042. [CrossRef]
- Mas-Tur, A.; Kraus, S.; Brandtner, E.R.; Kürsten, W. Advances in management research: A bibliometric overview of the review of managerial science. *Rev. Manag. Sci.* 2020, 14, 933–958. [CrossRef]
- Paul, J.; Lim, W.M.; O'Cass, A.; Hao, A.W.; Bresciani, S. Scientific procedures and rationales for systematic literature reviews [SPAR-4-SLR]. Int. J. Consum. Stud. 2021, 45, O1–O16. [CrossRef]
- 37. Sauer, P.C.; Seuring, S. How to conduct systematic literature reviews in management research: A guide in 6 steps and 14 decisions. *Rev. Manag. Sci.* 2023, *17*, 1899–1933. [CrossRef]
- 38. Paul, J.; Criado, A.E.P. The art of writing literature review: What do we know and what do we need to know? *Int. Bus. Rev.* 2020, 29, 101717. [CrossRef]
- Wong, G.; Greenhalgh, T.; Westhorp, G.; Buckingham, J.; Pawson, R. RAMESES publication standards: Meta-narrative reviews. BMC Med. 2013, 11, 20. [CrossRef] [PubMed]
- 40. Da Veiga, C.R.P.; da Veiga, C.P.; Drummond-Lage, A.P. Concern over cost of and access to cancer treatments: A meta-narrative review of nivolumab and pembrolizumab studies. *Crit. Rev. Oncol. Hematol.* **2018**, *129*, 133–145. [CrossRef] [PubMed]
- 41. Veiga, C.R.P.; Saliba, Y.; Abicalaffe, C.L.; Rocha, F.; Damázio, L.F.; Da Veiga, C. Value-Based Healthcare Initiative Is like a Marathon, Not a Sprint: Achievements and Challenges in Brazil. *J. Value Health* **2023**, *26*, S258. [CrossRef]
- 42. Farmer, T.; Robinsons, K.; Elliott, S.J.; Eyles, J. Developing and implementing a triangulation protocol for qualitative health research. *Qual. Health Res.* **2006**, *16*, 377–394. [CrossRef] [PubMed]
- 43. O'Cathain, A.; Murphy, E.; Nicholl, J. Three techniques for integrating data in mixed methods studies. *Br. Med. J.* 2010, 341, 1147–1150. [CrossRef]
- KPMG. Technology and the Transformation of e-Commerce: Reshaping the Future of Retail. 2021. Available online: https://home. kpmg/xx/en/home/insights/2021/02/technology-and-the-transformation-of-e-commerce.html (accessed on 1 September 2023).
- 45. Falagas, M.E.; Pitsouni, E.I.; Malietzis, G.A.; Pappas, G. Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses. *FASEB J.* **2008**, *22*, 338–342. [CrossRef]
- Mongeon, P.; Paul-Hus, A. The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics* 2016, 106, 213–228. [CrossRef]
- 47. Gusenbauer, M.; Haddaway, N.R. Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Res. Synth. Methods* **2020**, *11*, 181–217. [CrossRef] [PubMed]
- 48. Callou, G.; Maciel, P.; Tutsch, D.; Ferreira, J.; Araújo, J.; Souza, R. Estimating Sustainability Impact of High Dependable Data Centers: A Comparative Study Between Brazilian and US Energy Mixes. *Computing* **2013**, *95*, 1137–1170. [CrossRef]
- Oliveira, L.K.; Nunes, N.T.R.; Novaes, A.G.N. Assessing Model for Adoption of New Logistical Services: An Application for Small Orders of Goods Distribution in Brazil. *Procedia Soc. Behav. Sci.* 2010, 2, 6286–6296. [CrossRef]
- 50. Oliveira, R.L.M.d.; Garcia, C.S.H.F.; Góes Pinto, P.H. Accessibility to Food Retailers: The Case of Belo Horizonte, Brazil. *Sustainability* 2020, 12, 2654. [CrossRef]
- 51. Ferreira, J.; Callou, G.; Josua, A.; Tutsch, D.; Maciel, P. An Artificial Neural Network Approach to Forecast the Environmental Impact of Data Centers. *Information* **2019**, *10*, 113. [CrossRef]
- 52. Oliveira, L.K.; Carneiro, C.M.D.; Maia, M.L.A.; França, J.G.D.B. Effects of the COVID-19 pandemic on the perception of on-demand delivery by the younger generation: An exploratory analysis for Brazil. *Res. Transp. Econ.* **2023**, *100*, 101334. [CrossRef]
- Melo, I.C.; Alves Junior, P.N.; Callefi, J.S.; da Silva, K.A.; Nagano, M.S.; Rebelatto, D.A.N.; Rentizelas, A. Measuring the performance of retailers during the COVID-19 pandemic: Embedding optimal control theory principles in a dynamic data envelopment analysis approach. *Oper. Res. Perspect.* 2023, 10, 100282.
- 54. Curth, M.; Picoto, W.N.; Garcia, A.d.S.; Neto, A.F.G. Trust in Online Shopping: A Comparative Study Between Brazil and Portugal. *Braz. J. Mark.* 2020, 19, 237–260. [CrossRef]
- Pereira, P.C.; Azevedo, A.I.; Pinto, A.S. Cultural Differences in Electronic Commerce: Comparative Study between Brazil and Portugal. In Proceedings of the 2018 13th Iberian Conference on Information Systems and Technologies (CISTI), Caceres, Spain, 13–16 June 2018.

- Dos Reis, A.D.; Machado, M.A. E-Commerce in Emerging Markets: Internationalization Factors of Brazilian Footwear in South America. *Rev. Gestão E Tecnol.* 2020, 20, 165–189.
- 57. Cruez, V. Financial Division of Labor at Payment Systems in Argentina and Brazil. *Univ Andes Inst. Geogr. Conserv. Recur. Nat.* **2019**, *60*, 430–445.
- 58. Weber, A.N.; Badenhorst-Weiss, J.H. The last-mile logistical challenges of an omnichannel grocery retailer: A South African perspective. *J. Transp. Supply Chain. Manag.* **2018**, *12*, 1–13. [CrossRef]
- 59. Joia, L.A.; Sanz, P. The hidden value of sporadic customers in e-retailing: An empirical investigation. *Internet Res.* 2005, 15, 7–20. [CrossRef]
- 60. Singh, N.; Fassott, G.; Chao, M.C.H.; Hoffmann, J.A. Understanding international web site usage: A cross-national study of German, Brazilian, and Taiwanese online consumers. *Int. Mark. Rev.* **2006**, *23*, 83–97. [CrossRef]
- 61. Barrichello, A.; Morano, R.S.; D'Acosta Rivéra, J.R.; Jacomossi, R.R. Repurchase Intent Online and its Determinants: A Brazilian Perspective. *Rev. Gestão Tecnol.* 2016, 16, 199–217.
- 62. Oliveira, M.J.; Huertas, M.K.Z.; Lin, Z. Factors driving young users' engagement with Facebook: Evidence from Brazil. *Comput. Hum. Behav.* **2016**, *54*, 54–61. [CrossRef]
- 63. Malaquias, F.F.O.; Hwang, Y. Trust in Mobile Banking Under Conditions of Information Asymmetry: Empirical Evidence from Brazil. *Inf. Dev.* **2016**, *32*, 1600–1612. [CrossRef]
- 64. Monteiro, T.A.; Giuliani, A.C.; Pizzinatto, N.K.; Larios-Gomez, E. Managing the digital consumer: Insights from Brazil and Spain. J. Manuf. Technol. Manag. 2019, 30, 1196–1215. [CrossRef]
- Van Der Linden, M.; Souza, C.A. Factors Influencing Premium Pricing in E-Marketplaces. AMCIS 2018 Proceedings. 10. 2018. Available online: https://aisel.aisnet.org/amcis2018/LACAIS/Presentations/10 (accessed on 3 February 2023).
- 66. Sordi, G.F.; Casarotto, E.L.; Sordi, V.F. Online Sports Supplies Store: Factors that Influence Purchasing Decisions. *Cent. Univ. Senac* 2019, *9*, 111–124.
- Li, Y.Y.; Yao, L.; Wu, Y.L. Recommendations on Consumers Classification Management on the Analysis of Country-Based Difference of Cross-Border E-Commerce Users Behavior Data; Destech Publications Inc.: Lancaster, PA, USA, 2018; pp. 27–31.
- 68. Kraus, C.B.; Dos Santos, T. Consumer Behavior on Online Shopping in China Websites. Cad. Prof. Mark. 2018, 6, 67–81.
- 69. Au-Yong-Oliveira, M.; Moreira, F.; Martins, J.; Branco, F.; Goncalves, R. Technology usage as a way to increase safety and security in different geographies: Testimonials on the use of technology in Rio de Janeiro, Brazil. In Proceedings of the 2018 13th Iberian Conference on Information Systems and Technologies [CISTI], Caceres, Spain, 13–16 June 2018; pp. 1–7. [CrossRef]
- 70. De Sousa, P.R.d.; Barbosa, M.W.; Oliveira, L.K.d.; Resende, P.T.V.d.; Rodrigues, R.R.; Moura, M.T.; Matoso, D. Challenges, Opportunities, and Lessons Learned: Sustainability in Brazilian Omnichannel Retail. *Sustainability* **2021**, *13*, 666. [CrossRef]
- Rohden, S.F.; Matos, C.A.d. Online service failure: How consumers from emerging countries react and complain. *J. Consum. Mark.* 2022, 39, 44–54. [CrossRef]
- 72. de Magalhães, D.J.A.V. Analysis of critical factors affecting the final decision-making for online grocery shopping. *Res. Transp. Econ.* **2021**, *87*, 101088. [CrossRef]
- Sousa, I.L.D.; Nascimento, K.M.; Alves, R. Influence of the Covid-19 Pandemic on Purchasing Behavior and the Perception of Shipping Price and Delivery Time by Brazilian E-shoppers. In Proceedings of the Industrial Engineering and Operations Management, XXVIII IJCIEOM, Mexico City, Mexico, 17–20 July 2022.
- 74. Pagan, N.M.; Pagan, K.M.; Giraldi, J.D.E.; Merlo, E.M. Antecedents of trust and purchase intention in social commerce in Brazil. *Int. J. Internet Mark. Advert.* 2022, 17, 271–298. [CrossRef]
- 75. Perinotto, A.R.C.; Araújo, S.M.; Borges, V.P.C.; Soares, J.R.R.; Cardoso, L.; Lima Santos, L. The Development of the Hospitality Sector Facing the Digital Challenge. *Behav. Sci.* 2022, *12*, 192. [CrossRef] [PubMed] [PubMed Central]
- 76. Ozturk, A.B.; Pizam, A.; Hacikara, A.; An, Q.; Chaulagain, S.; Balderas-Cejudo, A.; Buhalis, D.; Fuchs, G.; Hara, T.; Vieira de Souza Meira, J.; et al. Hotel customers' behavioral intentions toward service robots: The role of utilitarian and hedonic values. *J. Hosp. Tour. Technol.* 2023, 14, 780–801. [CrossRef]
- Rocha, L.D.; Silva, G.R.S.; Canedo, E.D. Privacy Compliance in Software Development: A Guide to Implementing the LGPD. In Proceedings of the 38th Annual ACM Symposium on Applied Computing [SAC], Tallinn, Estonia, 27 March–2 April 2023.
- Bozzi, C.; Mont'alvão, C. The User Experience [UX] on Female Apparel E-Commerce Websites in Brazil. Work 2020, 66, 945–962. [CrossRef] [PubMed]
- 79. De Araujo, M.H.; Reinhard, N. Factors Influencing the Use of Electronic Government Services in Brazil. *Rege Rev. Gestão* 2015, 22, 585–596. [CrossRef]
- Avgerou, C. Explaining Trust in IT-Mediated Elections: A Case Study of E-Voting in Brazil. J. Assoc. Inf. Syst. 2013, 14, 420–451. [CrossRef]
- Oliveira, A.S.; Souki, G.Q.; Silva, D.; Rezende, D.C.; Batinga, G.L. Service guarantees in an e-commerce platform: Proposition of a framework based on customers' expectations, negative experiences and behavioural responses. *Asia-Pac. J. Bus. Adm.* 2023, 15, 225–244. [CrossRef]
- 82. Nery-da-Silva, G.; Pommer Barbosa, R.A.; Figueiredo, J.C.B. The Impact of Socioeconomic and Demographic Factors on the Individual Use of E-Commerce in Brazil: Evidence of the Digital Divide. *Int. J. Bus. Inf. Syst.* **2023**. [CrossRef]
- 83. Reis, M.A.S.; Minerbo, C.; Miguel, P.L.S. SCM Professionals' Competences in Brazil. *Braz. J. Oper. Prod. Manag.* 2021, 18, 1–17. [CrossRef]

- 84. Lopes, E.L.; Freire, O.B.D.; Lopes, E.H. Competing Scales for Measuring Perceived Quality in the Electronic Retail Industry: A Comparison between E-S-Qual and E-Tailq. *Electron. Commer. Res. Appl.* **2019**, *34*, 100824. [CrossRef]
- De Queiroz, L.S.; Bergamo, F.V.D.; De Melo, J.S. Validating a Conceptual Model of Online Shopping Experience for Brazilian Customers. *Rev. Bras. Mark.* 2016, 15, 524–539.
- Borges, M.; Hoppen, N.; Luce, F.B. Information Technology Impact on Market Orientation in E-Business. J. Bus. Res. 2009, 62, 883–890. [CrossRef]
- Grytz, V.K.; Guero, I.R. Reviewing the Legal Framework Applicable to Cross-border E-commerce Transactions in Brazil. *Glob. Trade Cust. J.* 2023, 18, 444–449. Available online: https://kluwerlawonline.com/journalarticle/Global+Trade+and+Customs+Journal/18.11/GTCJ2023054 (accessed on 3 March 2024). [CrossRef]
- 88. Junqueira, C.A.A. Recent Customs Reforms in Brazil. Glob. Trade Cust. J. 2023, 18, 450–453. [CrossRef]
- 89. Varotto, L.F. Retail In Brazil—Historical Rescue and Trends. Rev. Bras. Mark. 2018, 17, 429–443. [CrossRef]
- 90. Gouvea, R.; Kapelianis, D.; Montoya, M. Marketing Challenges and Opportunities in Emerging Economies: A Brazilian Perspective. *Thunderbird Int. Bus. Rev.* 2018, 60, 193–205. [CrossRef]
- 91. Tigre, P.B. Brazil in the Age of Electronic Commerce. Inf. Soc. 2003, 19, 33–43. [CrossRef]
- 92. Okoli, C.; Mbarika, V.W.A.; McCoy, S. The Effects of Infrastructure And Policy On E-Business In Latin America And Sub-Saharan Africa. *Eur. J. Inf. Syst.* 2010, 19, 5–20. [CrossRef]
- 93. Gibbs, J.; Kraemer, K.L.; Dedrick, J. Environment and Policy Factors Shaping Global E-Commerce Diffusion: A Cross-Country Comparison. *Inf. Soc.* 2003, *19*, 5–18. [CrossRef]
- 94. Bigne, E.; Maturana, P. Does Virtual Reality Trigger Visits and Booking Holiday Travel Packages? *Cornell Hosp. Q.* 2023, 64, 226–245. [CrossRef]
- Cunha, B.M.; Lettieri, C.K.; Cadena, G.W.; Pereira, V.R. Analyzing the Influence of COVID-19 on the E-Commerce Customer's Retail Experience in the Supermarket Industry: Insights from Brazil. *Logistics* 2023, 7, 53. [CrossRef]
- Melo, I.C.; Alves Junior, P.N.; Callefi, J.S.; Kodama, T.K.; Nagano, M.S.; Rebelatto, D.A.N. A Performance Index for Traditional Retailers Incorporating Digital Marketplace: Benchmarking through Data Envelopment Analysis [DEA]. J. Organ. Comput. Electron. Commer. 2022, 32, 196–216. [CrossRef]
- Santana, M.A.; Baptista, C.D.; Alves, A.L.F.; Firmino, A.A.; Januário, G.D.; Caldera, R.W.D. Using Machine Learning and NLP for the Product Matching Problem. In *Intelligent Sustainable Systems: Selected Papers of WorldS4 2022, Volume 2*; Springer Nature Singapore: Singapore, 2023.
- 98. Matuszelański, K.; Kopczewska, K. Customer Churn in Retail E-Commerce Business: Spatial and Machine Learning Approach. J. *Theor. Appl. Electron. Commer. Res.* 2022, 17, 165–198. [CrossRef]
- 99. Dos Santos, E.F.; de Carvalho, P.V.R.; Gomes, J.O. Interactions between e-commerce users during the COVID-19 pandemic period: What came and what remained. *Work* 2022, *73*, S177–S187. [CrossRef] [PubMed]
- Pulga, U.S.E.M.; de Aragao, J.J.G.; Yamashita, Y. The delivery role as employment creation: Restructuration proposal for chain management allied to delivery apps in COVID-19 pandemic. *Rev. Transp. Y Territ.* 2021, 25, 30–52.
- 101. Haji, K. E-commerce development in rural and remote areas of BRICS countries. J. Integr. Agric. 2021, 20, 979–997. [CrossRef]
- De Lara, F.F.; Da Silva, L.D.; Guimaraes, M.R.N. Innovation Practices in E-Commerce Sector: Multicases Study in the Region of Sorocaba/Sp. Rev. Geintec-Gest. Inov. E Tecnol. 2019, 9, 4893–4904.
- Souza, M.C.; Saueressig, G.G.; Gustavo Junior, J.U.; Sellitto, M.A. Identification of Loss in Process of E-Commerce by Reference of the Toyota Production System. *Cent. Fed. Educ. Tecnológica Rio Gd. Norte* 2016, 32, 192–210.
- 104. Dos Santos, A.S.; De Miranda, G.J. E-Commerce in Brazil: If the Segment is Promising, Why Acting Companies are Operating at a Loss? *Rev. Evidenciação Contábil Finanças* 2015, 3, 54–68.
- 105. Carlos, M.; Nogueira, M.; Machado, R.J. Analysis of Dengue Outbreaks Using Big Data Analytics and Social Networks. In Proceedings of the 2017 4th International Conference on Systems and Informatics (ICSAI), Hangzhou, China, 11–13 November 2017; IEEE: Piscataway, NJ, USA, 2017; pp. 1592–1597.
- Zwerg-Villegas, A.M.; Florez, A.C.; Cardona, L.G. Comparative Quantitative Evaluation of Commercial Web Sites: The Electronic Commerce Level Index. *Rev. Ciências Estratégica* 2015, 23, 183–192.
- 107. Baptista, G.; Oliveira, T. Why So Serious? Gamification Impact in the Acceptance of Mobile Banking Services. *Internet Res.* 2017, 27, 118–139. [CrossRef]
- Belém, F.M.; Silva, R.M.; de Andrade, C.M.V.; Person, G.; Mingote, F.; Ballet, R.; Alponti, H.; de Oliveira, H.P.; Almeida, J.M.; Gonçalves, M.A. Fixing the curse of the bad product descriptions—Search-boosted tag recommendation for E-commerce products. *Inf. Process. Manag.* 2020, *57*, 102289. [CrossRef]
- 109. Lobato, L.L.; Fernandez, E.B.; Zorzo, S.D. Patterns to Support the Development of Privacy Policies. In Proceedings of the 2009 International Conference on Availability, Reliability and Security, Fukuoka, Japan, 16–19 March 2009; pp. 744–749. [CrossRef]
- 110. Da Costa, V.B.F.; Valerio, V.E.D.; Miranda, R.D.C. Economic analysis of a cosmetic initiative addressing stochastic aspects and risk quantification. *Acta Sci. Technol.* **2023**, *45*, e59725. [CrossRef]
- 111. de Sousa, H.A.; Klein, L.; Voese, S.B. The Impact of Institutional Pressures on the Use and Maintenance of E-Commerce in Brazilian Micro and Small Enterprises [MSEs]. *RBGN-Rev. Bras. Gestão De Negócios* **2022**, *24*, 366–382.

- 112. Zanetta, L.D.; Hakim, M.P.; Gastaldi, G.B.; Seabra, L.M.J.; Rolim, P.M.; Nascimento, L.G.P.; Medeiros, C.O.; Cunha, D.T.d. The use of food delivery apps during the COVID-19 pandemic in Brazil: The role of solidarity, perceived risk, and regional aspects. *Food Res. Int.* **2021**, *149*, 110671. [CrossRef]
- 113. Joia, L.A. Analysing a Web-based e-commerce learning community: A case study in Brazil. *Internet Res.* 2002, *12*, 305–317. [CrossRef]
- 114. Pinho, P.C.R.; Barwaldt, R.; Espíndola, D.; Torres, M.; Pias, M.; Topin, L.; Borba, A.; Oliveira, M. Developments in Educational Recommendation Systems: A systematic review. In Proceedings of the IEEE Frontiers in Education Conference [FIE], Covington, KY, USA, 16–19 October 2019; pp. 1–7. [CrossRef]
- 115. Olivieri, M.A.; Rodrigues, S.C.M. *Essay on E-Learning as an Instrument of Helping People with Severe Motor Limitations*; Springer: Berlin, Germany, 2008; Volume 18, pp. 1084–1086.
- 116. Silva, L.M.; Filho, E.G.; Thomasi, S.S.; Silva, B.F.; Ferreira, A.G.; Venâncio, T. Use of diffusion-ordered NMR spectroscopy and HPLC-UV-SPE-NMR to identify undeclared synthetic drugs in medicines illegally sold as phytotherapies. *Magn. Reson. Chem.* 2013, *51*, 541–548. [CrossRef]
- 117. Viana, C.; Zemolin, G.M.; Müller, L.S.; Dal Molin, T.R.; Seiffert, H.; de Carvalho, L.M. Liquid Chromatographic Determination of Caffeine and Adrenergic Stimulants in Food Supplements Sold in Brazilian E-Commerce for Weight Loss and Physical Fitness. *Food Addit. Contam. Part A* 2016, 33, 1–9. [CrossRef] [PubMed]
- 118. de Sousa, L.T.M.; de Oliveira, L.K.; dos Santos Junior, J.L.; Bertoncini, B.V.; Isler, C.A.; Larranaga, A.M. Influence of neighborhood characteristics on e-commerce deliveries: The case of Belo Horizonte, Brazil. *Res. Transp. Econ.* **2023**, *100*, 101329. [CrossRef]
- Masteguim, R.; Cunha, C.B. An Optimization-Based Approach to Evaluate the Operational and Environmental Impacts of Pick-Up Points on E-Commerce Urban Last-Mile Distribution: A Case Study in São Paulo, Brazil. Sustainability 2022, 14, 8521. [CrossRef]
- Torre, N.M.M.; Salomon, V.A.P.; Loche, E.; Gazale, S.A.; Palermo, V.M. Warehouse Location for Product Distribution by E-Commerce in Brazil: Comparing Symmetrical MCDM Applications. *Symmetry* 2022, 14, 1987. [CrossRef]
- 121. Silva, B.T.; Sampaio, M. Factors influencing cargo robbery in last-mile delivery of e-commerce: An empirical study in Brazil. *J. Transp. Secur.* **2023**, *16*, 10. [CrossRef]
- 122. Oliveira, L.K.; Oliveira, I.K.; França, J.G.C.B.; Balieiro, G.W.N.; Cardoso, J.F.; Bogo, T.; Bogo, D.; Littig, M.A. Integrating Freight and Public Transport Terminals Infrastructure by Locating Lockers: Analysing a Feasible Solution for a Medium-Sized Brazilian Cities. *Sustainability* 2022, 14, 10853. [CrossRef]
- 123. Novaes, A.G.N.; Chraim, M. Logistics Support to Electronic Commerce in Brazil: Trends and Constraints. In *E-Business and Virtual Enterprises. PRO-VE 2000*; Camarinha-Matos, L.M., Afsarmanesh, H., Rabelo, R.J., Eds.; IFIP—The International Federation for Information Processing; Springer: Boston, MA, USA, 2001; Volume 56. [CrossRef]
- 124. Alves, R.; da Silva Lima, R.; Custódio de Sena, D.; Ferreira de Pinho, A.; Holguín-Veras, J. Agent-Based Simulation Model for Evaluating Urban Freight Policy to E-Commerce. Sustainability 2019, 11, 4020. [CrossRef]
- 125. Da Silva, J.V.S.; De Magalhães, D.; Medrado, L. Demand Analysis for Pick-Up Sites as an Alternative Solution for Home Delivery in the Brazilian Context. *Transp. Res. Procedia* **2019**, *39*, 462–470. [CrossRef]
- 126. Oliveira, L.K.; Morganti, E.; Dablanc, L.; Oliveira, R.L.M. Analysis of the potential demand of automated delivery stations for e-commerce deliveries in Belo Horizonte, Brazil. *Res. Transp. Econ.* **2017**, *65*, 34–43. [CrossRef]
- Bandeira, R.A.d.M.; Goes, G.V.; Gonçalves, D.N.S.; D'Agosto, M.d.A.; de Oliveira, C.M. Electric vehicles in the last mile of urban freight transportation: A sustainability assessment of postal deliveries in Rio de Janeiro-Brazil. *Transp. Res. Part D Transp. Environ.* 2019, 67, 491–502. [CrossRef]
- 128. Duarte, A.L.d.C.M.; Macau, F.; Silva, C.F.e.; Sanches, L.M. Last Mile Delivery to the Bottom of the Pyramid in Brazilian Slums. *Int. J. Phys. Distrib. Logist. Manag.* **2019**, *49*, 473–491. [CrossRef]
- 129. Moshref-Javadi, M.; Hemmati, A.; Winkenbach, M.A. Truck and Drones Model for Last-Mile Delivery: A Mathematical Model and Heuristic Approach. *Appl. Math. Model.* 2020, *80*, 290–318. [CrossRef]
- 130. Fagnani, R.; Dos Santos Bueno, B.; Mikio Itida, R.; Arena Galhardo, J.; Vanot, R.L. A novel approach in public health surveillance: Searching the illegal dairy trade in Facebook. *Int. J. Environ. Health Res.* **2023**, *33*, 518–528. [CrossRef] [PubMed]
- 131. Jurburg, D.; López, A.; Carli, I.; Chong, M.; De Oliveira, L.K.; Dablanc, L.; Tanco, M.; De Sousa, P.R. Understanding the Challenges Facing Decarbonization in the E-Commerce Logistics Sector in Latin America. *Sustainability* **2023**, *15*, 15718. [CrossRef]
- 132. Carvalho, A.F. Illegalities in the online trade of stingless bees in Brazil. Insect Conserv. Divers. 2022, 15, 673–681. [CrossRef]
- 133. Pereira, V.D.; Flores, R.B.; Stefani, G.P. Analysis of protein-based supplement labels available on Brazilian e-commerce. *Rev. Bras. Nutr. Esportiva* **2021**, *16*, 348–355. Available online: https://www.rbne.com.br/index.php/rbne/article/view/2021 (accessed on 3 April 2024).
- 134. Shaik, S.; Kuruppuarachchi, L.N.; Franchetti, M.J. Carbon Footprint Impact of Holiday e-Commerce: A Case Study of São Paulo, Brazil. *Environ. Eng. Manag. J.* **2022**, *21*, 687.
- 135. Silva, I.S.T.d.; Fernandes, T.A.; dos Santos, T.M.; Matias, C.A.R.; de Sousa, M.R.P. Non-compliance of sanitary standards in the offer of animal products in e-commerce and the risks to public health. *Vigil. Sanit. Debate-Soc. Cienc. Tecnol.* 2021, 9, 98–103. [CrossRef]
- 136. Willers, G.; Sangaletti, I.P.; Stefani, G.P. Análise de características e conformidade de legislação vigente de suplementos alimentares de BCAAs no e-commerce do mercado brasileiro. *Rev. Bras. Nutr. Esportiva* **2021**, *15*, 1–8.

- 137. Peres, C.K.; Lambrecht, R.W.; Tavares, D.A.; Chiba de Castro, W.A. Alien Express: The threat of aquarium e-commerce introducing invasive aquatic plants in Brazil. *Perspect. Ecol. Conserv.* **2018**, *16*, 221–227. [CrossRef]
- 138. Gurjao, L.M.; Barros, G.M.; Lopes, D.P.; Machado, D.A.; Lotufo, T.M. Illegal Trade of Aquarium Species through the Brazilian Postal Service in Ceara State. *Mar. Freshw. Res.* **2018**, *69*, 178–185. [CrossRef]
- 139. Azevedo, R.S.; Bitencourt, A.; Silva, D.A.; Amorim, A.; Mazzoni, R.; Carvalho, E.F.; Amaral, C.R.L. Genetic Diversity of Geophagus Brasiliensis from the South American Atlantic Rainforest. *Forensic Sci. Int. Genet. Suppl. Ser.* **2017**, *6*, 433–434. [CrossRef]
- 140. Souza, F.C.P.; Junior, A.A.D.; Petry, J.F.; Soares, A.D.F. Exploring the Antecedents of Loyalty from the Perspective of the E-Commerce Retail Consumer in Brazil. *Rev. Bras. Mark.* **2021**, *22*, 301. [CrossRef]
- de Moura, F.R.; e Oliveira, R.D.; Feijó, E.R.; da Silva Júnior, F.M.R. Danger is just a click away—A survey on online shopping for glyphosate-based pesticides for gardening/horticulture. *Environ. Sci. Policy* 2023, 143, 35–43. [CrossRef]
- 142. Pranckutė, R. Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world. *Publications* **2021**, *9*, 12. [CrossRef]
- 143. Zhu, J.; Liu, W. A tale of two databases: The use of Web of Science and Scopus in academic papers. *Scientometrics* **2020**, 123, 321–335. [CrossRef]
- 144. Vera-Baceta, M.A.; Thelwall, M.; Kousha, K. Web of Science and Scopus language coverage. *Scientometrics* **2019**, *21*, 1803–1813. [CrossRef]

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.