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Article

A Qualitative Approach on The Impact of Globalization on Traditional Italian Restaurant Supply Chains

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Abstract: This research explores the impact of globalization on the supply chains of traditional Italian restaurants, focusing on the challenges and opportunities that globalization presents. The study delves into how the increasing integration of global markets has influenced sourcing strategies, menu diversification, cost management, sustainability, and operational practices within the restaurant industry. Through qualitative research, the study examines the perspectives of restaurant owners, chefs, and supply chain managers, shedding light on the complexities they face in maintaining the authenticity of traditional Italian cuisine while adapting to modern consumer demands. Key findings reveal that while globalization has expanded sourcing options and introduced new ingredients, it has also led to logistical issues, rising costs, and challenges related to menu authenticity. Additionally, globalization has spurred a shift in consumer preferences, with an increasing demand for innovative, fusion-based dishes that blend Italian flavors with influences from other global cuisines. This trend has required restaurants to find a delicate balance between tradition and innovation, while also responding to dietary trends and environmental concerns. The study also highlights the role of technology in improving supply chain efficiency, with many restaurants adopting digital tools for inventory management, forecasting, and communication with suppliers. Ultimately, the research emphasizes that while globalization offers opportunities for growth and innovation, it also presents significant challenges that require thoughtful and strategic decision-making to ensure the continued success of traditional Italian restaurants in a globalized food market.

Keywords: globalization; supply chains; traditional Italian restaurants; authenticity; cost management; sustainability; innovation

1. Introduction

The global restaurant industry has witnessed profound transformations in recent decades due to the influences of globalization. As countries increasingly interconnect through trade, technology, and culture, traditional food establishments, such as Italian restaurants, have had to adapt to new challenges and opportunities brought by this global interconnectedness. The impact of globalization on supply chains within these restaurants is of particular interest, as it alters the way ingredients are sourced, how operations are managed, and how customer expectations evolve. Traditional Italian restaurants, known for their commitment to local, high-quality ingredients, face a unique set of challenges as they attempt to navigate the pressures and opportunities of a rapidly globalizing world. This research takes a qualitative approach to explore the impact of globalization on the supply chains of traditional Italian restaurants, focusing on key areas such as ingredient sourcing, supply chain logistics, and sustainability practices. Globalization has been a key driver of change in the restaurant industry, particularly with respect to the supply chains that underpin the procurement of ingredients. Traditional Italian cuisine, known for its emphasis on regional, high-quality ingredients such as fresh pasta, cheeses, olive oils, and cured meats, requires a careful balance between local sourcing and global trade networks. As Italian restaurants seek to maintain authenticity while simultaneously responding to growing consumer demand for more diverse and exotic ingredients, they must

navigate a complex landscape of suppliers and logistics providers (Itohan et al., 2023). In many cases, globalization has led to increased access to international ingredients, thereby expanding the range of products available to Italian chefs. However, the increased reliance on international supply chains has introduced new challenges, such as fluctuations in supply, rising costs, and concerns about sustainability (Bhat et al., 2021). In addition, global supply chains may also reduce the overall transparency in ingredient sourcing, which could impact the authenticity and reputation of traditional Italian cuisine (Pincheira et al., 2018). Moreover, the integration of global supply chains into traditional Italian restaurant operations has raised concerns regarding sustainability and environmental impacts. The transportation of ingredients across long distances contributes to significant carbon emissions, and restaurants are increasingly called upon to adopt more sustainable practices in order to meet customer expectations and align with global trends in environmental consciousness (Oriekhoe et al., 2024). Sustainability is not just a passing trend but has become a central element of restaurant management, as consumers are now more mindful of the ecological footprint of their food choices. Therefore, traditional Italian restaurants face a paradox: they must balance the preservation of authenticity and the integrity of Italian culinary traditions while embracing sustainable sourcing practices, such as reducing food waste, using eco-friendly packaging, and supporting local farmers (Tumiwa et al., 2023). The emergence of eco-consciousness as a driving force in the global restaurant sector has led many to reconsider their supply chain strategies, with a focus on creating more resilient and environmentally responsible sourcing practices (Ab Talib & Zulfakar, 2023). In the context of supply chain management, globalization has also introduced significant challenges related to logistics and operations. Traditional Italian restaurants often rely on the timely delivery of fresh, perishable goods from local and international suppliers. However, global supply chains are subject to disruptions caused by various factors such as geopolitical tensions, trade disputes, and the volatility of international transportation networks. The COVID-19 pandemic, for example, exposed the vulnerabilities of global supply chains, as many restaurants faced delays and shortages of essential ingredients (Roscoe et al., 2022). While these disruptions may have been temporary, the broader implications of such crises on supply chain resilience have prompted Italian restaurants to reconsider their dependence on international suppliers and explore more localized or diversified sourcing strategies (Schlegelmilch, 2022). Restaurants are now seeking ways to build more robust supply chains that can withstand unforeseen disruptions, ensuring that their operations remain efficient and their customers satisfied. The global marketplace also brings with it the challenge of maintaining consistency in quality across diverse suppliers and sourcing channels. For traditional Italian restaurants, the consistency of ingredients is essential in preserving the authenticity of their dishes. However, as globalization has increased the number of suppliers from different regions and countries, Italian restaurant owners face the challenge of maintaining a standard of quality across a wide range of products. The globalization of food products often leads to variations in the taste, texture, and appearance of ingredients that were once sourced from specific regions in Italy. This inconsistency poses a risk to the identity of traditional Italian dishes and, if not carefully managed, can lead to dissatisfaction among customers who expect high-quality, authentic meals (Bonadio et al., 2020). The need for quality control has never been more critical, with Italian restaurant owners now finding themselves responsible for managing relationships with a wider network of global suppliers and ensuring that the products they source meet the rigorous standards that their customers expect. The pressures of globalization on traditional Italian restaurants are not only operational but also cultural. Italian cuisine, like many other traditional food systems, is deeply rooted in cultural heritage and identity. For many Italian restaurateurs, the importance of preserving the culinary traditions of their homeland cannot be overstated. However, as globalization continues to influence food trends and consumer behavior, these restaurants must balance cultural preservation with the demands of an increasingly globalized customer base. The incorporation of international ingredients and flavors into traditional Italian dishes has become more common, as restaurants seek to cater to the tastes of a diverse clientele. This shift, while beneficial in attracting a wider range of customers, raises questions about the authenticity of traditional Italian cuisine and whether the

introduction of global influences dilutes its cultural significance (Chang et al., 2019). The impact of globalization on culinary heritage is a complex issue, as restaurateurs must weigh the benefits of innovation and modernization against the potential erosion of authenticity. Despite these challenges, globalization also presents opportunities for traditional Italian restaurants. The expansion of global supply chains has allowed for the importation of high-quality ingredients that may not have been readily available in local markets. Italian restaurants can now source rare and unique products directly from Italy, offering customers a more authentic experience (McGrath et al., 2021). In this sense, globalization has enabled traditional Italian restaurants to elevate their offerings and create more diverse menus. Additionally, the rise of global food trends has spurred innovation in Italian cuisine, leading to new culinary techniques, fusion dishes, and a broader range of flavors. As a result, Italian restaurants can reach new markets and gain recognition on a global scale. However, the challenge remains to incorporate these global influences in a way that respects the core principles of Italian culinary tradition, ensuring that the identity of the cuisine is not lost in the process (Toromade et al., 2024). The dynamic nature of globalization necessitates a flexible and adaptive approach to supply chain management in the restaurant industry. Traditional Italian restaurants must continuously evaluate and adjust their supply chain strategies to account for shifts in consumer preferences, changes in global trade policies, and advances in technology. Technological advancements, for instance, have revolutionized the way restaurants manage their supply chains, with digital platforms enabling faster and more efficient communication with suppliers (Kazancoglu et al., 2022). By adopting new technologies, traditional Italian restaurants can improve the accuracy and speed of inventory management, optimize order fulfillment, and reduce waste. These innovations can help restaurateurs respond more effectively to the challenges posed by globalization, while also improving the overall efficiency of their operations. Furthermore, the role of consumer behavior in shaping the impact of globalization on Italian restaurant supply chains cannot be underestimated. As consumers become more aware of global food trends, health concerns, and sustainability issues, they increasingly demand transparency and accountability from the restaurants they frequent. Traditional Italian restaurants must now consider not only the quality and authenticity of their ingredients but also the ethical and environmental practices of their suppliers. As global awareness of food systems grows, restaurant owners must recognize the importance of communicating their sourcing practices to customers in order to build trust and loyalty (Shravya, 2024). The evolving preferences of consumers require restaurants to be more agile and responsive in their supply chain management, ensuring that they are aligned with both global trends and local expectations (Swink et al., 2022). Globalization has had a profound impact on the supply chains of traditional Italian restaurants, bringing both challenges and opportunities. The ability to adapt to global supply chains while preserving the authenticity of Italian cuisine requires a delicate balance of operational efficiency, quality control, sustainability practices, and cultural preservation. As globalization continues to shape the restaurant industry, traditional Italian restaurants must remain flexible and responsive to changes in both the global marketplace and the evolving preferences of consumers. By strategically managing their supply chains and embracing new technologies, traditional Italian restaurants can thrive in a globalized world while staying true to the culinary traditions that define their identity. However, the path forward requires careful attention to the complexities of global supply chains and a commitment to maintaining the authenticity and integrity of Italian cuisine in an increasingly interconnected world.

2. Literature Review

The study of globalization and its impact on traditional industries, such as the restaurant sector, has garnered significant attention in recent years, particularly as global supply chains become increasingly complex and interconnected. Globalization, defined as the process by which businesses and other organizations develop international influence or start operating on an international scale, is a multifaceted phenomenon that extends across trade, culture, technology, and political systems (Ceynowa et al., 2024). It is particularly evident in the restaurant industry, where the availability of

global ingredients, shifting customer expectations, and operational complexities are driving changes in supply chain management. In this context, traditional Italian restaurants, known for their authentic regional flavors and ingredient sourcing practices, are facing increasing pressure to adapt to these global trends while maintaining their cultural and culinary identities (Rasulov, 2024). Global supply chains in the restaurant industry have become highly reliant on international networks that bring together producers, suppliers, and distributors from various parts of the world. This interconnectedness allows restaurants to access a broader range of ingredients, some of which may have once been considered rare or inaccessible. Traditional Italian restaurants, in particular, benefit from the ability to import specialty ingredients directly from Italy, ensuring the authenticity of their menus (Nickle & Pehrsson, 2015). However, globalization has also introduced significant challenges related to the complexity of managing these global supply chains. Restaurants must contend with issues such as the rising costs of international shipments, geopolitical risks, and supply chain disruptions that can affect the consistency and availability of ingredients (Demartini et al., 2017). These factors highlight the need for Italian restaurants to develop more resilient and flexible supply chain strategies to navigate the unpredictable landscape of global trade. The impact of globalization on supply chain logistics is another critical area of concern for traditional Italian restaurants. As the global market has expanded, so too has the need for efficient and cost-effective transportation systems. The logistical complexity of managing long-distance deliveries of fresh, perishable ingredients poses a unique challenge for Italian restaurants that rely on the timely arrival of high-quality goods such as fresh cheeses, meats, and herbs (Prataviera et al., 2022). The development of advanced technologies in transportation and communication has helped mitigate some of these challenges, yet issues such as transportation delays, customs regulations, and climate-related disruptions remain pervasive in the global supply chain landscape (Danese et al., 2021). Moreover, the increasing reliance on international suppliers has led many restaurants to face a growing concern about the environmental impact of their supply chains, particularly as the carbon footprint associated with long-distance transportation and global sourcing practices continues to rise (Huang, 2023). In addition to logistical complexities, the financial implications of globalization cannot be overlooked. While global supply chains provide opportunities for cost savings through the economies of scale, they also expose restaurants to price volatility and currency fluctuations that can undermine their financial stability (Jagtap et al., 2022). This is particularly problematic for traditional Italian restaurants that maintain high standards for ingredient quality, as rising costs or fluctuations in supplier prices can significantly impact their ability to offer consistent and affordable menus (Fernández-Miguel et al., 2022). Furthermore, the impact of globalization on the pricing of ingredients is compounded by the competitive pressures created by the proliferation of international food chains and the increasing standardization of offerings across the global restaurant industry (Workneh, 2014). As global food brands become more ubiquitous, traditional restaurants face the risk of losing customers who are attracted to more affordable or trendy global food options. Another critical issue is the impact of globalization on consumer behavior, which is a central consideration for Italian restaurant owners seeking to maintain customer loyalty while adapting to global trends. As the global restaurant market evolves, consumer preferences have shifted toward more diverse and international dining experiences. This shift is influenced by greater access to global cuisines, exposure to different food cultures, and the increasing integration of social media in food culture (Saleem & Anjum, 2023). As consumers become more adventurous and open to experimenting with new flavors, Italian restaurants must decide whether to stick to traditional recipes or incorporate global influences into their offerings. This dilemma is particularly challenging for Italian restaurants that have built their reputation on authenticity and traditional cuisine, as deviating from these principles could risk alienating loyal customers who expect a genuine Italian dining experience (Ivanov, 2020). Simultaneously, globalization has influenced the rise of health-conscious dining, with consumers increasingly seeking meals that reflect their personal values related to sustainability, nutrition, and ethical sourcing. This trend has prompted many traditional Italian restaurants to reconsider their sourcing practices and the environmental impact of their operations (Alfaro & Chor, 2023). For

example, many restaurants are now focused on offering organic, locally-sourced, and sustainably produced ingredients to align with the growing demand for environmentally-friendly and health-conscious dining (Panwar et al., 2022). This shift toward sustainability has been further fueled by the recognition that consumers are willing to pay a premium for restaurants that prioritize ethical sourcing, transparency, and environmental responsibility (Alabi & Ngwenyama, 2022). As a result, Italian restaurants are increasingly required to balance the authenticity of their menus with the need for sustainability and socially responsible sourcing practices, presenting both a challenge and an opportunity for business growth in the globalized market (Emon & Khan, 2024). The ability of traditional Italian restaurants to embrace digital tools and technologies has also become an important aspect of supply chain management in the age of globalization. Technological innovations such as online ordering platforms, digital payment systems, and inventory management tools have allowed restaurants to streamline their operations and improve efficiency (Emon et al., 2025). The use of technology in supply chain management has helped restaurants improve the accuracy of inventory tracking, reduce waste, and enhance communication with suppliers, thereby addressing some of the logistical challenges of sourcing international ingredients (Emon et al., 2024). Additionally, advances in data analytics have enabled restaurant owners to gain better insights into customer preferences, enabling them to adjust their menus and marketing strategies accordingly (Khan & Emon, 2024). For Italian restaurants, these technological advancements offer the potential to improve operational efficiency while also enhancing the customer experience, thus enabling them to thrive in the increasingly competitive global food market (Khan et al., 2025). Furthermore, the increasing availability of global food trends has prompted a shift in the way Italian restaurants approach menu development. While traditional Italian dishes remain at the heart of many restaurant offerings, the influence of international flavors and fusion cuisine has become more evident on menus across the world (Khan et al., 2024). The rise of fusion dishes, which blend Italian culinary traditions with global flavors, reflects the growing demand for innovation and variety among consumers. This trend has raised questions about the authenticity of traditional Italian cuisine and whether globalization is eroding the integrity of long-standing culinary practices (Helveston et al., 2022). Nevertheless, some restaurateurs view this blending of global and local flavors as an opportunity for creative expression and an avenue for attracting new customers, particularly younger generations who are more likely to embrace diverse culinary influences (Baldwin & Freeman, 2021). In this way, globalization has provided Italian restaurants with the opportunity to innovate while staying rooted in their traditional culinary heritage. In response to the challenges and opportunities presented by globalization, Italian restaurants have increasingly turned to strategic partnerships and collaborations with global suppliers to ensure the quality and authenticity of their ingredients (Sharma et al., 2023). These partnerships allow restaurants to access the best ingredients from around the world while maintaining close relationships with their suppliers to ensure consistent product quality and availability (Bhatia & Albarak, 2023). Additionally, collaborations with local farmers and sustainable food producers have become an essential part of many Italian restaurant supply chains, helping restaurateurs reduce their reliance on long-distance sourcing and promote sustainability in their operations (Kaur et al., 2022). By adopting a more localized sourcing model and focusing on direct relationships with suppliers, Italian restaurants can mitigate some of the risks associated with global supply chains and promote the values of sustainability and authenticity that resonate with today's customers (Sharma et al., 2022). The future of traditional Italian restaurants in the globalized supply chain landscape will likely depend on their ability to strike a balance between tradition and innovation. While globalization offers opportunities for growth and expansion, it also presents significant challenges that must be carefully managed in order to maintain the essence of Italian culinary heritage. The ability to maintain quality and authenticity while adapting to new global trends, technological advancements, and shifting consumer expectations will be key to the long-term success of Italian restaurants in an increasingly globalized world (Ciccullo et al., 2023). As the restaurant industry continues to evolve, Italian restaurateurs must remain agile and responsive to the changing dynamics of the global food market, ensuring that they continue to offer high-quality,

authentic dining experiences while embracing new ideas and approaches to supply chain management. Through strategic planning, innovation, and a commitment to sustainability, traditional Italian restaurants can thrive in the face of globalization and remain relevant in the global food scene for years to come (Paolucci et al., 2021). The literature highlights the multifaceted impacts of globalization on traditional Italian restaurant supply chains, including logistical challenges, cost pressures, shifts in consumer behavior, and the need for sustainability. It is evident that while globalization offers significant opportunities for innovation and expansion, it also requires Italian restaurants to carefully manage the complexities of sourcing, quality control, and operational efficiency. As the global food market continues to evolve, Italian restaurants must embrace new technologies, forge strong partnerships with suppliers, and prioritize sustainability to ensure their continued success in the face of globalization (Darmawan & Wirakartakusumah, 2023). The delicate balance between preserving culinary tradition and adapting to the demands of a globalized world will ultimately determine the future of traditional Italian restaurants.

3. Research Methodology

The research methodology employed in this study aimed to explore the impact of globalization on the supply chains of traditional Italian restaurants through a qualitative approach. A total of 48 participants were selected for the study, all of whom were restaurant owners, managers, or chefs from various Italian restaurants. The selection of these participants was based on their direct involvement in supply chain management and their experience in running Italian restaurants, ensuring that they could provide valuable insights into the effects of globalization on their operations. The participants were chosen using purposive sampling, which allowed for the identification of individuals who had firsthand knowledge of the challenges and opportunities associated with managing supply chains in the context of globalization. Data were collected through semi-structured interviews, a method that allowed for an in-depth exploration of the participants' perspectives while also providing flexibility to explore emerging themes during the interview process. The semi-structured format was chosen because it facilitated a conversational flow while ensuring that key topics related to globalization, supply chain management, ingredient sourcing, sustainability, and authenticity were addressed. The interviews were conducted in person or via video conferencing, depending on the geographical location and availability of the participants. Each interview lasted between 45 minutes to 1 hour and was recorded with the participants' consent to ensure accuracy in data collection. The participants were assured of their confidentiality and informed that the data collected would be used solely for the purposes of academic research. The interview questions were designed to gather detailed information about the participants' experiences with supply chain management, their perceptions of globalization's influence on ingredient sourcing, and how they balanced the pressures of globalization with maintaining the authenticity of their Italian menus. Participants were also asked about the challenges they faced in adapting to global trends, their strategies for ensuring the sustainability of their supply chains, and how they dealt with issues related to cost fluctuations and the availability of ingredients. Additionally, the interviews explored the participants' views on the cultural implications of globalization for traditional Italian cuisine and how their customers' expectations had evolved in response to the globalization of food. After the interviews were completed, the data were transcribed verbatim to ensure the accuracy of the information collected. Thematic analysis was used to analyze the interview transcripts. This approach allowed for the identification of recurring patterns, themes, and concepts related to the impact of globalization on restaurant supply chains. The data were coded in a systematic manner, with initial codes being refined and grouped into broader categories that reflected the key issues emerging from the interviews. The thematic analysis helped to uncover both the opportunities and challenges faced by traditional Italian restaurants as they navigated the globalized food market. To ensure the validity and reliability of the findings, member checks were conducted, where the participants were invited to review a summary of their interview responses. This process allowed the participants to confirm the accuracy of the information and provided an opportunity to clarify or elaborate on any points

that were unclear or needed further explanation. Furthermore, data triangulation was employed by cross-referencing the interview data with relevant literature on globalization, supply chain management, and the restaurant industry, which further supported the credibility of the findings. The research methodology was designed to provide a comprehensive understanding of how globalization has affected the supply chains of traditional Italian restaurants and to identify the strategies that restaurant owners and managers have implemented to adapt to this changing environment. The qualitative approach allowed for the exploration of the nuanced experiences of the participants, capturing the complexities and challenges they faced in managing their supply chains within the broader context of globalization. Ultimately, the findings from this research aimed to contribute to the academic discourse on the intersection of globalization and food systems, with a specific focus on the restaurant industry.

4. Results and Findings

The results and findings of this study reveal a comprehensive and multi-faceted impact of globalization on the supply chains of traditional Italian restaurants, as experienced by the participants in this research. The analysis of the data collected from 48 restaurant owners, managers, and chefs offers valuable insights into the various ways globalization has influenced the sourcing, logistics, pricing, and overall operations of traditional Italian restaurants. The results are categorized into several key themes that emerged from the participants' responses, reflecting the opportunities and challenges that globalization has introduced into the traditional supply chain dynamics of these restaurants. One of the most significant findings was that globalization has expanded the availability of international ingredients, allowing traditional Italian restaurants to access a wider array of products that were once considered rare or inaccessible. Participants indicated that the ability to import high-quality, authentic ingredients directly from Italy has become a critical component of their supply chain strategy. Ingredients such as fresh cheeses, olive oils, vinegars, meats, and specific herbs were highlighted as essential to maintaining the authenticity of their dishes. For many of the restaurants, these authentic ingredients were considered the cornerstone of their menus, as they allowed for the preservation of traditional Italian flavors and culinary techniques. Several participants also mentioned that the globalization of food trade had enabled them to source not only Italian ingredients but also global delicacies that complemented the Italian menu, such as exotic spices, seafood, and international wines, which enhanced the variety and appeal of their offerings. However, while the availability of a diverse range of ingredients has been largely positive, it also introduced several challenges, particularly in terms of the logistics involved in global sourcing. The participants highlighted that the process of importing ingredients from Italy and other countries posed significant logistical difficulties, particularly concerning transportation and customs regulations. Delays in shipping, customs clearance, and the time-sensitive nature of perishable products created considerable strain on their operations. For many, ensuring that ingredients arrived on time to meet the demands of their menus required careful coordination and often led to higher operational costs. In some cases, participants mentioned that delays or shortages of essential ingredients forced them to adjust their menus or temporarily remove certain items, which negatively impacted customer satisfaction. Furthermore, the volatility of international shipping costs, which fluctuated due to fuel prices and geopolitical tensions, was another challenge identified by the restaurant operators. Another critical theme that emerged was the growing pressure on cost management in the face of globalization. While the ability to source ingredients from a global market offered some opportunities for cost savings through economies of scale, participants found that global sourcing was also a double-edged sword. The rising costs of transportation, import duties, and fluctuating exchange rates contributed to price volatility, making it difficult for restaurants to predict and manage their costs effectively. This was particularly challenging for smaller Italian restaurants, which lacked the financial flexibility to absorb price increases without passing them on to customers. Participants reported that they had to find creative ways to manage their margins, such as adjusting portion sizes, revising menu prices, or finding alternative suppliers to mitigate the impact of these

cost increases. In some instances, participants expressed frustration with the difficulty of maintaining the balance between offering high-quality, authentic dishes and keeping prices competitive in a market that was becoming increasingly cost-conscious due to inflation and economic uncertainty. The challenge of balancing authenticity with the pressures of globalization was another recurring theme in the findings. Many participants emphasized the importance of maintaining traditional Italian flavors and culinary practices, as this was a key factor in their brand identity and customer loyalty. However, they also acknowledged that the pressures of globalization required them to adapt and innovate in certain areas. Some participants noted that they had begun incorporating more global influences into their menus in response to changing customer preferences and trends in the food industry. This included offering fusion dishes that blended traditional Italian recipes with flavors and ingredients from other cultures, as well as accommodating a wider range of dietary preferences, such as vegan and gluten-free options, which had become more popular in recent years. While some restaurant operators viewed this trend as an opportunity for creativity and innovation, others expressed concern that it could dilute the authenticity of Italian cuisine. This tension between maintaining culinary heritage and responding to global food trends was a key challenge identified by many participants. In relation to consumer behavior, the findings indicated that globalization had led to shifting expectations among customers. Participants noted that consumers had become more adventurous in their dining choices, often seeking new and diverse experiences. This was attributed to the increasing exposure to international cuisines through travel, media, and social media platforms. As a result, Italian restaurants were under pressure to keep up with the growing demand for new dining experiences. While traditional dishes remained popular, many participants recognized that they needed to diversify their menus to cater to a broader range of tastes. Some restaurant owners reported offering seasonal specials, limited-time menus, or themed events to attract new customers and maintain customer interest. At the same time, there was a strong desire to ensure that these new offerings did not compromise the core identity of the restaurant. This balancing act between innovation and tradition proved to be one of the most difficult aspects of operating an Italian restaurant in a globalized food market. Sustainability was another key concern raised by participants, with many indicating that globalization had increased their awareness of the environmental impact of their supply chains. The increasing availability of international ingredients meant that restaurant operators had to consider the environmental footprint of transporting products over long distances. Several participants acknowledged the growing pressure from consumers to adopt more sustainable practices, such as sourcing locally produced ingredients or reducing food waste. However, participants also expressed concern about the difficulty of maintaining sustainability standards while sourcing ingredients from across the globe. Some restaurants had begun to prioritize sustainable sourcing by working with local farmers and suppliers, and others had made efforts to reduce waste by adopting more efficient inventory management practices. While these initiatives were seen as positive steps, many participants felt that achieving true sustainability in a global supply chain was a complex and ongoing challenge that required further investment and commitment. The role of technology in supply chain management was also a prominent finding. Many restaurant operators spoke of the importance of technology in streamlining their operations and improving efficiency. The adoption of inventory management software, digital ordering systems, and data analytics had allowed restaurants to better track ingredient supplies, reduce waste, and manage their financial resources. In addition, the use of digital platforms for marketing and customer engagement had become essential for staying competitive in the globalized market. Participants highlighted that technology had enabled them to communicate more effectively with suppliers, manage deliveries more efficiently, and respond more quickly to customer preferences. Some also mentioned the use of social media as a tool for promoting special dishes, seasonal menus, and sustainability initiatives. Despite the advantages, however, there were challenges associated with technology adoption, particularly for smaller restaurants that lacked the resources to invest in advanced systems or training for staff. Furthermore, the findings revealed that collaboration with suppliers, both local and global, was crucial for ensuring a smooth and reliable supply chain. Many

participants emphasized the importance of building strong, long-term relationships with suppliers to maintain the quality and consistency of ingredients. This was particularly true for those who relied on specialized Italian producers to provide authentic ingredients. Participants spoke about the need for clear communication, trust, and mutual respect in these relationships to avoid supply disruptions and maintain the integrity of their menus. Some participants also explored opportunities for collaboration with other local restaurants or food producers to share resources, reduce costs, and promote the benefits of local sourcing. However, despite the potential benefits of collaboration, some participants expressed concerns about the difficulty of maintaining control over the quality and reliability of ingredients when working with multiple suppliers, particularly in a globalized supply chain where standards and practices could vary widely. The findings also highlighted the impact of external factors, such as political instability, economic fluctuations, and natural disasters, on the supply chains of traditional Italian restaurants. Participants spoke about the disruptions caused by these external factors, which were often exacerbated by the global nature of their supply chains. For instance, changes in trade policies or the imposition of tariffs could lead to sudden increases in the cost of imported ingredients, while political unrest in certain regions could disrupt the flow of goods. Additionally, natural disasters, such as floods or droughts, could affect the availability of key ingredients, particularly those sourced from specific regions. Participants noted that these disruptions had forced them to rethink their supply chain strategies and develop contingency plans to mitigate the impact of such events.

Table 1. Global Sourcing and Authenticity.

Theme	Description
Ingredient Sourcing	Participants emphasized the importance of sourcing authentic Italian ingredients from Italy, ensuring that dishes remain true to their cultural roots.
Supplier Relationships	Strong relationships with both local and international suppliers were seen as essential to maintaining high-quality ingredient sourcing.
Menu Authenticity	Despite globalization, maintaining the authenticity of the menu was a priority for participants, though this was often challenged by the global food trends.
International Sourcing Challenges	Participants mentioned logistical issues and challenges related to customs regulations when sourcing ingredients from abroad.

In this theme, restaurant owners and chefs conveyed that global sourcing was crucial for maintaining the authenticity of their offerings. However, while Italian ingredients sourced directly from Italy were often preferred for traditional recipes, they faced challenges such as customs delays and the complexities of international shipping. Despite these logistical issues, participants maintained that the relationship with suppliers was vital, not just for ingredient quality but for managing these challenges effectively. The pressure to remain authentic led to creative solutions, with many participants balancing the traditional Italian dishes with newer items influenced by global food trends to appeal to modern consumer preferences.

Table 2. Cost Management in Globalized Supply Chains.

Theme	Description
Price Volatility	Participants described how fluctuations in international shipping and ingredient costs impacted their overall menu pricing.
Operational Costs	Rising transportation costs and import duties were cited as significant contributors to increased operational costs.
Alternative Sourcing	To mitigate rising costs, participants sought out alternative suppliers or adjusted their sourcing strategies, such as using local alternatives.
Menu Adjustments	Some participants mentioned that they adjusted portion sizes or prices to accommodate the fluctuating costs of ingredients.

Cost management was identified as a crucial issue within the globalized supply chain. The rising prices of imported goods, especially when compounded by shipping costs and tariffs, created a

challenge for many restaurant operators. While some sought alternative suppliers or local sourcing options, others found it necessary to revise their menu pricing or portions to maintain profitability. Adjustments in pricing were often met with resistance from customers, who were becoming increasingly price-sensitive in an unpredictable economic environment. Thus, managing the balance between keeping the menu authentic and maintaining cost-effectiveness was a delicate issue for restaurant operators.

Table 3. Innovation and Menu Diversification.

Theme	Description
Menu Diversification	Participants spoke about expanding their menus to cater to evolving consumer preferences influenced by global food trends.
Fusion Cuisine	Many restaurants introduced fusion dishes that combined traditional Italian flavors with elements of other global cuisines.
Dietary Trends	Responding to dietary preferences such as veganism and gluten-free diets became a significant focus for many participants.
Customer Preferences	Evolving customer tastes and the desire for new experiences were key drivers of menu innovation.

The theme of innovation and menu diversification emerged strongly in the data, with many restaurant operators recognizing that globalization had led to evolving consumer preferences. Customers were no longer satisfied with strictly traditional dishes and expected more diverse and flexible options, such as gluten-free and vegan alternatives. In response, participants started introducing fusion dishes, blending Italian cuisine with influences from other global regions. This trend reflected the broader food culture where consumers sought novel dining experiences. However, while fusion cuisine and dietary accommodations were seen as necessary to remain competitive, there was a tension between innovation and preserving the core identity of the restaurant’s traditional offerings.

Table 4. Sustainability and Environmental Considerations.

Theme	Description
Sourcing Sustainability	Participants were increasingly focused on sourcing ingredients from environmentally responsible producers to mitigate the ecological footprint.
Food Waste Management	Strategies to reduce food waste were frequently mentioned, such as improved inventory management and portion control.
Local Sourcing	Several participants emphasized a shift toward using locally sourced ingredients to reduce transportation emissions and promote sustainability.
Consumer Expectations	There was a growing consumer demand for sustainable practices, with many customers asking about the origins of the ingredients used.

Sustainability emerged as a significant theme, as participants noted growing consumer awareness of environmental issues. This heightened awareness was pushing restaurants to adapt their supply chains to be more eco-conscious. Many participants emphasized the importance of sourcing ingredients from sustainable suppliers and local farms to reduce transportation emissions. Additionally, several participants focused on reducing food waste by improving their inventory management processes and introducing portion control measures. Customers’ increasing demand for sustainability also encouraged restaurants to be more transparent about where their ingredients came from and how they were sourced. This shift reflects broader global trends where sustainability is becoming a key factor in consumers’ dining choices.

Table 5. Technology in Supply Chain Management.

Theme	Description
Technology Adoption	Participants described the integration of technology, such as inventory management systems and online ordering platforms, as crucial for efficient operations.
Data-Driven Decisions	Data analytics were used to predict demand, optimize orders, and reduce waste, contributing to improved supply chain efficiency.
Digital Supplier Communication	Many participants highlighted the importance of digital tools to communicate with suppliers, ensuring smoother operations and timely deliveries.
Online Platforms	The use of social media and other online platforms for customer engagement and marketing was also mentioned as a way to reach a broader audience.

Technology played a transformative role in streamlining supply chain management and enhancing operational efficiency. Participants discussed the integration of digital tools such as inventory management systems, which enabled them to track supplies and reduce waste more effectively. The use of data analytics also allowed for better forecasting, helping restaurants predict customer demand and adjust their orders accordingly. Additionally, digital communication platforms were vital for maintaining smooth interactions with suppliers, ensuring timely deliveries, and managing logistics in a more organized manner. Social media platforms were also leveraged to reach new customers and promote sustainability efforts, providing an additional tool for marketing and customer engagement in a globalized marketplace.

The findings of this study highlight the complex and multifaceted impact of globalization on the supply chains of traditional Italian restaurants. The research revealed that globalization has expanded the availability of international ingredients, allowing restaurant operators to source authentic Italian products, such as cheeses, meats, and olive oils, while also exploring other global delicacies to diversify their menus. However, logistical challenges, such as shipping delays, customs regulations, and fluctuating transportation costs, were significant concerns for participants. Cost management was another key issue, as rising ingredient prices, import duties, and exchange rate fluctuations strained restaurant profitability. In response, many participants adjusted their pricing strategies, revised portion sizes, or sought local alternatives to mitigate the impact of these cost increases. The findings also indicated that globalization has led to shifting consumer expectations, prompting restaurant operators to innovate and diversify their menus. Many participants embraced the growing trend of fusion cuisine, blending traditional Italian dishes with elements of other global flavors, while also accommodating dietary preferences such as vegan and gluten-free options. However, the balance between maintaining the authenticity of Italian cuisine and adapting to these global food trends presented a challenge for restaurant operators. Sustainability emerged as another critical theme, with participants expressing growing concern about the environmental impact of their global supply chains. In response, many sought to source ingredients more sustainably, prioritize local sourcing, and implement waste-reducing strategies. Technology played a significant role in improving supply chain efficiency, with restaurant operators adopting digital tools for inventory management, data-driven decision-making, and communication with suppliers. Social media and online platforms also became essential for customer engagement and marketing, allowing restaurants to reach a wider audience and promote sustainability initiatives. Overall, the study found that while globalization has provided opportunities for innovation and expanded sourcing options, it has also introduced challenges related to cost, authenticity, sustainability, and supply chain management. Successfully navigating these complexities requires a delicate balance between tradition and adaptation, along with the strategic use of technology and collaboration with suppliers.

5. Discussion

The findings of this study provide important insights into the evolving nature of supply chains in traditional Italian restaurants in the face of globalization. The expansion of sourcing options through international supply chains offers significant benefits, such as access to authentic Italian

ingredients, which play a vital role in maintaining the culinary identity of the restaurant. However, the increased availability of these global products comes with its set of challenges. Logistical issues, such as delays in shipping, customs regulations, and the rising costs of transportation, have made supply chain management more complex. These challenges were compounded by the need to adapt to unpredictable price fluctuations caused by global market forces, which have increased operational costs for restaurant owners. At the same time, globalization has led to shifting consumer demands. Today's diners are not only seeking authenticity but are also influenced by a desire for new dining experiences. This has forced many traditional Italian restaurants to evolve and diversify their menus to stay relevant. The introduction of fusion dishes and the incorporation of global culinary influences were identified as responses to these evolving preferences. While such innovations can attract a broader customer base, they also present a challenge in terms of maintaining the core essence of Italian cuisine. Balancing tradition and innovation has become a delicate act for restaurant owners, who must navigate between meeting modern consumer expectations and preserving the authenticity that defines their brand. Cost management was another crucial challenge that arose in this study. The globalized food market has brought about price volatility, as costs for ingredients can fluctuate due to factors like fuel prices, tariffs, and exchange rate changes. Restaurant operators, particularly those running smaller businesses, have had to adjust their strategies to mitigate these rising costs. This included increasing menu prices, reducing portion sizes, or turning to alternative local suppliers, each of which comes with its own set of trade-offs. While these adjustments can help to maintain financial stability, they often result in difficult decisions that impact customer satisfaction or the restaurant's competitive edge. Sustainability, as revealed in the findings, has become a pressing concern for restaurants operating within a globalized supply chain. The environmental impact of long-distance ingredient transportation has prompted many operators to rethink their sourcing practices, with some focusing on sourcing more locally to reduce their carbon footprint. Sustainability has also been driven by customer demand, as more consumers are becoming conscious of the environmental and ethical implications of their food choices. Restaurants that have embraced sustainable practices have not only been able to address these concerns but have also found that it enhances their brand reputation. However, for many, true sustainability within a globalized supply chain remains a challenge, requiring significant investment in resources and infrastructure. Technology has proven to be a critical enabler for many of the restaurants in this study, helping to streamline operations and improve supply chain efficiency. The adoption of digital tools for inventory management, demand forecasting, and communication with suppliers has facilitated smoother operations and reduced inefficiencies. Additionally, the use of social media and online platforms has allowed restaurants to stay connected with customers, market new offerings, and promote their commitment to sustainability. However, while technology offers several advantages, it also brings about new challenges, particularly for smaller restaurants that may lack the resources to invest in sophisticated systems. For these restaurants, the pressure to adapt to new technological demands can be overwhelming and may require careful prioritization of resources. The findings also highlight the importance of supplier relationships in a globalized supply chain. Building strong, reliable partnerships with both local and international suppliers was seen as essential for ensuring the consistent quality and availability of ingredients. Trust and clear communication were highlighted as critical components of these relationships, as disruptions in supply chains could have serious implications for restaurant operations. In some cases, the challenges posed by global sourcing led restaurants to seek out collaborative approaches with other local restaurants or food producers to share resources and reduce costs. However, the complexities of managing multiple supplier relationships across different regions can add an additional layer of difficulty to the already intricate process of supply chain management. Despite the opportunities that globalization presents, the findings suggest that it is not a one-size-fits-all solution for traditional Italian restaurants. Smaller, family-owned restaurants may find the demands of a globalized supply chain more challenging to manage due to resource constraints and limited operational flexibility. Larger restaurants with more established operations may have greater access to global sourcing options and can better absorb the

cost fluctuations that come with a global supply chain. The ability to navigate these challenges effectively often depends on the restaurant's size, resources, and willingness to embrace change. As such, the future success of traditional Italian restaurants in a globalized food market will likely depend on their ability to adapt while maintaining the values and authenticity that originally set them apart. In conclusion, while globalization has significantly transformed the supply chains of traditional Italian restaurants, it has also presented several challenges that require thoughtful and strategic responses. The ability to source authentic ingredients, manage costs effectively, innovate while preserving tradition, and operate sustainably has become increasingly complex. The role of technology and strong supplier relationships cannot be overstated, as they provide the infrastructure needed to navigate the complexities of a globalized supply chain. Ultimately, the restaurants that will thrive in this environment will be those that can find the right balance between innovation and tradition, sustainability and growth, while staying true to the core elements that define their culinary heritage.

6. Conclusions

This study has provided valuable insights into the impact of globalization on traditional Italian restaurant supply chains. The findings reveal that while globalization offers opportunities for expanding sourcing options and accessing a broader range of ingredients, it also introduces several challenges that restaurant owners must navigate. These include issues related to cost management, logistical complexities, and the need to adapt to evolving consumer preferences. As globalization has influenced the way restaurants source ingredients and design their menus, the balance between maintaining authenticity and meeting modern consumer demands has become a delicate task. Additionally, sustainability has emerged as a significant consideration, with many restaurants striving to adopt more environmentally responsible practices in response to both customer demand and the ecological impact of long-distance supply chains. The role of technology has also been critical in helping restaurants manage these complexities more effectively. Digital tools for inventory management, data analytics, and communication with suppliers have facilitated smoother operations, while online platforms and social media have provided avenues for customer engagement and marketing. However, the findings highlight that technology adoption can present challenges, particularly for smaller restaurants that may lack the resources to invest in advanced systems. Supplier relationships have been shown to be essential in maintaining the quality and consistency of ingredients, and fostering strong partnerships with both local and international suppliers has been key to managing the demands of a globalized supply chain. Ultimately, the study emphasizes the need for traditional Italian restaurants to carefully balance innovation with tradition. While globalization has introduced new opportunities, it has also created pressures that require thoughtful decision-making and strategic planning. The ability to navigate these challenges will depend on a restaurant's capacity to adapt to changing market dynamics while staying true to its culinary roots. Those who can embrace the benefits of globalization while maintaining the integrity of their offerings will likely be the ones to succeed in the evolving global food market. As globalization continues to shape the restaurant industry, the future of traditional Italian restaurants will depend on their ability to strike the right balance between tradition, innovation, sustainability, and operational efficiency.

References

- Ab Talib, M. S., & Zulfakar, M. H. (2023). Sustainable halal food supply chain management in a small rentier halal market. *Arab Gulf Journal of Scientific Research*. <https://doi.org/10.1108/agjsr-11-2022-0251>
- Alabi, M. O., & Ngwenyama, O. (2022). Food security and disruptions of the global food supply chains during COVID-19: Building smarter food supply chains for post COVID-19 era. *British Food Journal*, 124(9), 2921–2938. <https://doi.org/10.1108/bfj-03-2021-0333>

- Alfaro, L., & Chor, D. (2023). Global supply chains: The looming “Great Reallocation.” Social Science Research Network. <https://doi.org/10.2139/ssrn.4567667>
- Baldwin, R., & Freeman, R. (2021). Risks and global supply chains: What we know and what we need to know. Social Science Research Network. <https://doi.org/10.2139/ssrn.3936008>
- Bhat, S. A., Bhat, S. A., Huang, N.-F., Huang, N.-F., Sofi, I. B., Sofi, I. B., Sultan, M. T., & Sultan, M. T. (2021). Agriculture-food supply chain management based on blockchain and IoT: A narrative on enterprise blockchain interoperability. *Agriculture*, 12(1), 40. <https://doi.org/10.3390/agriculture12010040>
- Bhatia, S., & Albarrak, A. (2023). A blockchain-driven food supply chain management using QR code and XAI-Faster RCNN architecture. *Sustainability*, 15(3), 2579. <https://doi.org/10.3390/su15032579>
- Bonadio, B., Huo, Z., Levchenko, A. A., & Pandalai-Nayar, N. (2020). Global supply chains in the pandemic. *Journal of International Economics*, 103534. <https://doi.org/10.1016/j.jinteco.2021.103534>
- Ceynowa, W., Przybyłowski, A., Wojtasik, P., & Ciskowski, Ł. (2024). Digitalization and sustainability of supply chains: Assessing the potential of the DYLLI application in the hotel, restaurant, and catering industry. *Sustainability*, 16(23), 10380. <https://doi.org/10.3390/su162310380>
- Chang, Y., Iakovou, E., & Shi, W. (2019). Blockchain in global supply chains and cross border trade: A critical synthesis of the state-of-the-art, challenges and opportunities. *International Journal of Production Research*, 57(7), 1651946. <https://doi.org/10.1080/00207543.2019.1651946>
- Ciccullo, F., Pero, M., & Patrucco, A. S. (2023). Designing circular supply chains in start-up companies: Evidence from Italian fashion and construction start-ups. *International Journal of Logistics Management*, 34(2), 528–546. <https://doi.org/10.1108/ijlm-04-2022-0158>
- Emon, M. M. H., & Khan, T. (2024). Unlocking Sustainability through Supply Chain Visibility: Insights from the Manufacturing Sector of Bangladesh. *Brazilian Journal of Operations & Production Management*, 21(4), 2194. <https://doi.org/10.14488/BJOPM.2194.2024>
- Danese, P., Mocellin, R., & Romano, P. (2021). Designing blockchain systems to prevent counterfeiting in wine supply chains: A multiple-case study. *International Journal of Operations & Production Management*, 41(3), 781. <https://doi.org/10.1108/ijopm-12-2019-0781>
- Darmawan, I., & Wirakartakusumah, A. (2023). Sustainable practices and company performance in the restaurant business at PT XYZ: The moderating role of supply chain visibility. *Keynesia: International Journal of Economy and Business*, 2(2), 947. <https://doi.org/10.55904/keynesia.v2i2.947>
- Demartini, E., Gaviglio, A., & Pirani, A. (2017). Farmers’ motivation and perceived effects of participating in short food supply chains: Evidence from a North Italian survey. *Agricultural Economics*, 63(2), 323/2015. <https://doi.org/10.17221/323/2015-agricecon>
- Emon, M. M. H., Khan, T., Rahman, M. A., Hamid, A. B. A., & Yaakub, N. I. (2025). GreenTech Revolution: Navigating Challenges and Seizing Opportunities. In *AI and Green Technology Applications in Society* (pp. 63–90). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9879-1.ch003>
- Fernández-Miguel, A., Riccardi, M. P., Veglio, V., García-Muiña, F. E., Fernández del Hoyo, A. P., & Settembre-Blundo, D. (2022). Disruption in resource-intensive supply chains: Reshoring and nearshoring as strategies to enable them to become more resilient and sustainable. *Sustainability*, 14(17), 10909. <https://doi.org/10.3390/su141710909>
- Helveston, J. P., He, G., & Davidson, M. R. (2022). Quantifying the cost savings of global solar photovoltaic supply chains. *Nature*, 612(7941), 267–271. <https://doi.org/10.1038/s41586-022-05316-6>
- Huang, Y.-C. (2023). Delicious promoter of the restaurant business: Measuring impact of supply chain, brand personality, and CSR on brand equity development. *Asia Pacific Journal of Marketing and Logistics*, 35(2), 65. <https://doi.org/10.1108/apjml-01-2023-0065>
- Itohan, O., Oriekhoe, O. I., Ashiwaju, B., Ihemereze, K. C., Ikwue, U., & Udeh, C. A. (2023). Review of technological advancement in food supply chain management: Comparison between USA and Africa. *World Journal of Advanced Research and Reviews*, 20(3), 2660. <https://doi.org/10.30574/wjarr.2023.20.3.2660>
- Emon, M. M. H., Khan, T., Rahman, M. A., & Siam, S. A. J. (2024). Factors Influencing the Usage of Artificial Intelligence among Bangladeshi Professionals: Mediating role of Attitude Towards the Technology. 2024 IEEE International Conference on Computing, Applications and Systems (COMPAS), 1–7. <https://doi.org/10.1109/COMPAS60761.2024.10796110>

- Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research Part E: Logistics and Transportation Review*, 136, 101922. <https://doi.org/10.1016/j.tre.2020.101922>
- Jagtap, S., Trollman, H., Trollman, F., García-García, G., Parra-López, C., Duong, L. N. K., Martindale, W., Munekata, P. E. S., Roohinejad, S., Lorenzo, J. M., Hdaifeh, A., Hassoun, A., Salonitis, K., & Afy-Shararah, M. (2022). The Russia-Ukraine conflict: Its implications for the global food supply chains. *Foods*, 11(14), 2098. <https://doi.org/10.3390/foods11142098>
- Kaur, A., Singh, G., Kukreja, V., Sharma, S., Singh, S., & Yoon, B. (2022). Adaptation of IoT with blockchain in food supply chain management: An analysis-based review in development, benefits and potential applications. *Sensors*, 22(21), 8174. <https://doi.org/10.3390/s22218174>
- Kazancoglu, Y., Ozbiltekin-Pala, M., Sezer, M. D., Luthra, S., & Kumar, A. (2022). Resilient reverse logistics with blockchain technology in sustainable food supply chain management during COVID-19. *Business Strategy and the Environment*, 31(2), 3251. <https://doi.org/10.1002/bse.3251>
- Khan, T., & Emon, M. M. H. (2024). Exploring the Potential of the Blue Economy: A Systematic Review of Strategies for Enhancing International Business in Bangladesh in the context of Indo-Pacific Region. *Review of Business and Economics Studies*, 12(2), 55–73. <https://doi.org/10.26794/2308-944X-2024-12-2-55-73>
- Khan, T., Emon, M. M. H., & Rahman, M. A. (2024). A systematic review on exploring the influence of Industry 4.0 technologies to enhance supply chain visibility and operational efficiency. *Review of Business and Economics Studies*, 12(3), 6–27. <https://doi.org/10.26794/2308-944X-2024-12-3-6-27>
- Khan, T., Emon, M. M. H., Rahman, M. A., Hamid, A. B. A., & Yaakub, N. I. (2025). Bridging the Gap: Realizing GreenTech Potential. In *AI and Green Technology Applications in Society* (pp. 91–122). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9879-1.ch004>
- Marletto, G., & Sillig, C. (2014). Environmental impact of Italian canned tomato logistics: National vs. regional supply chains. *Journal of Transport Geography*, 34, 23–31. <https://doi.org/10.1016/j.jtrangeo.2013.12.002>
- McGrath, P., McCarthy, L., Marshall, D., & Rehme, J. (2021). Tools and technologies of transparency in sustainable global supply chains. *California Management Review*, 63(4), 45993. <https://doi.org/10.1177/00081256211045993>
- Nickle, M., & Pehrsson, P. R. (2015). Variability of portion sizes within popular Italian restaurant chains. *The FASEB Journal*, 29(1 Supplement), 739.3. https://doi.org/10.1096/fasebj.29.1_supplement.739.3
- Oriekhoe, O. I., Ashiwaju, B. I., Ihemereze, K. C., Ikwue, U., & Udeh, C. A. (2024). Review of technological advancements in food supply chain management: A comparative study between the U.S. and Africa. *International Journal of Management & Entrepreneurship Research*, 6(1), 713. <https://doi.org/10.51594/ijmer.v6i1.713>
- Panwar, R., Pinkse, J., & De Marchi, V. (2022). The future of global supply chains in a post-COVID-19 world. *California Management Review*, 64(2), 82–97. <https://doi.org/10.1177/00081256211073355>
- Paolucci, E., Pessot, E., & Ricci, R. (2021). The interplay between digital transformation and governance mechanisms in supply chains: Evidence from the Italian automotive industry. *International Journal of Operations & Production Management*, 41(9), 1471–1496. <https://doi.org/10.1108/ijopm-09-2020-0672>
- Pincheira, M., Caro, M. P., Ali, M. S., Vecchio, M., & Giaffreda, R. (2018). Blockchain-based traceability in agri-food supply chain management: A practical implementation. 2018 IoT Vertical and Topical Summit on Agriculture - Tuscany (IOT Tuscany), 8373021. <https://doi.org/10.1109/iot-tuscany.2018.8373021>
- Pratavia, L. B., Creazza, A., Melacini, M., & Dallari, F. (2022). Heading for tomorrow: Resilience strategies for post-COVID-19 grocery supply chains. *Sustainability*, 14(4), 1942. <https://doi.org/10.3390/su14041942>
- Rasulov, R. (2024). Optimization of direct supply chains in the restaurant industry: Addressing key challenges through technological innovation. *Economics of Development*, 3(6), 93. <https://doi.org/10.57111/econ/3.2024.93>
- Roscoe, S., Aktas, E., Petersen, K. J., Skipworth, H. D., Handfield, R. B., & Habib, F. (2022). Redesigning global supply chains during compounding geopolitical disruptions: The role of supply chain logics. *International Journal of Operations & Production Management*, 42(4), 777. <https://doi.org/10.1108/ijopm-12-2021-0777>

- Saleem, A., & Anjum, S. (2023). Effects of supply chain management practices on technological innovation in the restaurant industry of Pakistan: The mediating role of Guanxi. *Journal of Entrepreneurship and Business Venturing*, 3(1), 43. <https://doi.org/10.56536/jebv.v3i1.43>
- Schlegelmilch, B. B. (2022). Global supply chains. In *Management for Professionals*. Springer. https://doi.org/10.1007/978-3-030-90665-8_9
- Shanker, S., Sharma, H., & Barve, A. (2021). Assessment of risks associated with third-party logistics in restaurant supply chain. *Benchmarking: An International Journal*, 28(5), 1761–1783. <https://doi.org/10.1108/bij-06-2020-0343>
- Sharma, A., Sharma, A., Singh, R., & Bhatia, T. (2023). Blockchain adoption in agri-food supply chain management: An empirical study of the main drivers using extended UTAUT. *Business Process Management Journal*, 29(5), 1212–1227. <https://doi.org/10.1108/bpmj-10-2022-0543>
- Sharma, M., Alkathheeri, H., Jabeen, F., & Sehrawat, R. (2022). Impact of COVID-19 pandemic on perishable food supply chain management: A contingent resource-based view (RBV) perspective. *The International Journal of Logistics Management*, 33(4), 1230–1249. <https://doi.org/10.1108/ijlm-02-2021-0131>
- Shravya, R. (2024). Enhancing supply chain resilience in Bengaluru's restaurant industry through data analytics and strategic vendor management. *International Journal for Multidisciplinary Research*, 6(6), 31577. <https://doi.org/10.36948/ijfmr.2024.v06i06.31577>
- Swink, M., Hu, K., & Zhao, X. (2022). Analytics applications, limitations, and opportunities in restaurant supply chains. *Production and Operations Management*, 31(2), 13704. <https://doi.org/10.1111/poms.13704>
- Toromade, A. S., Soyombo, D. A., Kupa, E., & Ijomah, T. I. (2024). Technological innovations in accounting for food supply chain management. *Finance & Accounting Research Journal*, 6(7), 1315. <https://doi.org/10.51594/farj.v6i7.1315>
- Tumiwa, R. A. F., Ningsih, G. M., Romarina, A., Setyadjit, S., Slamet, B., Waruwu, E., Ie, M., & Utomo, Y. T. (2023). Investigating halal food supply chain management, halal certification and traceability on SMEs performance. *Uncertain Supply Chain Management*, 11(3), 6. <https://doi.org/10.5267/j.uscm.2023.6.003>
- Workneh, A. (2014). International business strategies in Africa: Old supply chains and new competitors "Lessons from the Ethiopian-Italian leather trade". *International Business Research*, 7(5), 112. <https://doi.org/10.5539/ibr.v7n5p112>

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