

# Navigating the New Normal: Digital Proximity and JIT in Small Business Transformation

Lucía Ramírez Martínez<sup>1</sup>, Eduardo Durazo-Watanabe<sup>1</sup> and Juan Carlos Izquierdo Camacho<sup>2</sup>

<sup>1</sup> CETYS Universidad, Mexico

<sup>2</sup> Universidad Hemisferios Quito, Ecuador

**Abstract.** The COVID-19 outbreak has significantly impacted supply chains across various sectors. However, the healthcare sector, including dental services, has seen increased demand. This study proposes digital proximity as a new strategy for small and medium-sized enterprises (SMEs) to engage with their customers through digital channels. To implement this concept, the just-in-time methodology is recommended to optimize internal processes and compete with large e-commerce intermediaries. The key findings highlight a rise in demand for dental health services, particularly in dentistry, despite border closures. The United States remains the primary supplier of materials for the sector, underscoring limitations in the development of the local supply chain, which can be attributed to a lack of understanding of dental service providers' needs. This study suggests digital proximity and just-in-time methodology as crucial strategies for SMEs to grow competitively at the regional level by fostering closer customer relationships, enabling faster adaptation to market needs, and improving process efficiency. In conclusion, these tools are essential for SME development in the dental service sector and their regional market expansion.

## 1 Introduction

The COVID-19 pandemic has profoundly impacted global health awareness, creating a surge in demand for healthcare services. Among these, dental services have emerged as a critical need, especially in regions like Baja California, which has long been a key destination for medical tourism. This region attracts patients, primarily from the United States, due to the high cost of dental services in their home country and the geographical proximity of Baja California [1-4]. The phenomenon of medical tourism has been further amplified by the pandemic, which has driven an increase in demand for dental treatments due to complications such as cracked tooth syndrome, often linked to bruxism—the grinding or clenching of teeth associated with pandemic-related stress [5-6].

This heightened demand for dental care is notable because dental treatments are often urgent and difficult to delay, given the pain and complications associated with dental issues. This urgency has driven significant pressure on the dental services market, particularly in regions dependent on cross-border supply chains for medical and dental materials [7]. The border closures that resulted from the pandemic have exacerbated this problem, as Mexican dental providers have found it increasingly difficult to source high-quality materials from the United States, their primary supplier [7]. As a result, there is a growing opportunity for local suppliers to step in and fill the gap in the supply chain.

However, local suppliers face challenges, particularly when it comes to meeting the high-quality standards expected by dental professionals. Moreover,

the global disruption of supply chains [8-9] has created uncertainty, further complicating efforts to deliver materials reliably and sustainably. These challenges have prompted dental providers to look for new ways to optimize their operations. The adoption of just-in-time logistics has emerged as a key strategy, allowing dental suppliers to minimize excess inventory while ensuring that they can respond quickly to demand. This system, which has long been employed in other sectors, is now becoming a vital tool for the dental industry.

In addition to logistics innovations, the pandemic has also accelerated the adoption of e-commerce. The need to adapt to digital channels has driven dental suppliers to explore digital proximity as a means of maintaining closer relationships with their clients. This concept allows businesses to use digital platforms—such as Google Maps, Facebook Market, and Instagram Shopping—to create a sense of closeness with customers, even when physical proximity is not possible [10-11]. As a result, small and medium-sized enterprises (SMEs) in the dental supply sector now have the opportunity to compete more effectively with larger, well-established companies by combining just-in-time logistics with digital proximity strategies.

This chapter explores the strategic implementation of just-in-time logistics and digital proximity as tools for SMEs in the dental industry. By leveraging these approaches, SMEs can build closer relationships with their customers, improve efficiency, and ensure they meet the high standards required by dental professionals, all while navigating the challenges of a post-pandemic market.

## 2 Theoretical Framework

In the context of small and medium-sized enterprises (SMEs), understanding and applying strategies that improve operational efficiency is crucial. The COVID-19 pandemic has reshaped industries across the globe, with healthcare, particularly dental services, being one of the most affected sectors. In regions like Baja California, which has long been a prominent destination for medical tourism, SMEs involved in the supply of dental products have faced significant challenges due to supply chain disruptions, fluctuating demand, and border closures. This scenario has highlighted the necessity of new approaches, such as just-in-time logistics and digital proximity, to ensure sustainability and competitiveness in an increasingly digital economy [1-4].

### 2.1 Small and Medium-Sized Enterprises (SMEs)

SMEs are the backbone of many economies, particularly in developing countries. In Mexico, SMEs represent a significant portion of the economy, contributing to over 52% of the GDP and employing around 72% of the national workforce [12]. Despite their vital role, SMEs often struggle with limited resources, particularly when it comes to implementing complex supply chain and digital strategies traditionally used by larger firms [13].

A typical SME is defined by its limited scale of operations but significant growth potential. In Mexico, SMEs are classified based on factors such as the number of employees and sales revenue. The micro, small, and medium enterprises (MiPyMEs) are grouped into different categories based on the size and capacity of the business. For instance, a microenterprise generally has no more than 10 employees and an annual revenue cap of 4 million pesos, whereas small and medium enterprises range between 11 to 250 employees [12-13].

SMEs, particularly those in the dental sector, are now facing a post-pandemic world where digital integration and streamlined logistics are necessary for survival. These businesses must adapt by optimizing their operations and capitalizing on their proximity to customers [7].

### 2.2 Just-in-Time Logistics

The concept of just-in-time (JIT) logistics originated from the Toyota Production System (TPS), which focuses on reducing waste, improving efficiency, and delivering products based on real-time demand [14]. In essence, JIT logistics refers to a process that aligns production schedules closely with demand, minimizing the need for excess inventory [15]. The system was designed to optimize resource use while ensuring that customer needs are met promptly, without overproducing or under-delivering [14].

For SMEs, particularly those in the dental supply chain, adopting JIT logistics can present unique opportunities and challenges. SMEs typically operate with fewer resources, which makes it critical to avoid

waste, yet they also need to ensure that they can meet demand without holding large amounts of inventory. Implementing JIT logistics requires synchronization between production, procurement, and distribution, which can be difficult for smaller businesses that lack the scale or advanced systems used by larger corporations [15,19].

One of the central elements of JIT logistics is the Kanban system, a visual signaling system used to control the flow of materials in the production process [16]. Kanban cards track each step of production, ensuring that the right amount of material is available exactly when needed [14]. For SMEs, implementing a simplified version of this system can help manage supply chain complexities by streamlining operations and improving communication across the organization [15,19].

### 2.3 Digital Proximity

The concept of digital proximity has become increasingly relevant as businesses seek to maintain close relationships with customers in a world that is becoming more digitally connected. Digital proximity refers to the use of digital tools and platforms to create a sense of closeness between businesses and their customers, despite physical distance [11]. This can include everything from e-commerce platforms and social media to customer relationship management (CRM) systems [10].

For SMEs, digital proximity offers an opportunity to compete with larger firms by leveraging cost-effective digital tools to enhance customer engagement and streamline operations [17]. For example, a dental supply SME may use platforms like Google Maps, Facebook Market, and Instagram Shopping to connect with customers, promote products, and provide seamless purchasing experiences [11]. This strategy allows SMEs to expand their market reach without the need for physical expansion, thereby reducing overhead costs while increasing visibility and sales opportunities [10].

However, implementing digital proximity also comes with challenges. SMEs need to invest in user-friendly web interfaces, e-commerce platforms, and effective supply chain management systems to ensure that customers receive the same level of service that they would in a physical store [18]. This transition requires both technological investment and training, particularly for businesses that are not familiar with digital operations. Yet, the long-term benefits of digital proximity, such as improved customer satisfaction, increased sales, and greater flexibility in responding to market changes, make it an attractive strategy for SMEs [19-20].

### 2.4 Integration of Just-in-Time and Digital Proximity

The integration of JIT logistics with digital proximity provides SMEs with a powerful strategy to optimize their operations while maintaining strong relationships with their customers. By synchronizing production

schedules with real-time demand data obtained through digital channels, SMEs can reduce excess inventory and improve the speed of delivery, all while maintaining a customer-focused approach [14,17].

This approach is particularly relevant for SMEs in the dental supply chain, where timely delivery of high-quality products is critical. The COVID-19 pandemic has disrupted traditional supply chains, forcing businesses to rethink how they manage both production and distribution [8-9]. The rise of e-commerce during the pandemic has further accelerated the need for SMEs to adopt digital proximity strategies to stay competitive [21].

For instance, an SME that supplies dental materials might use a just-in-time system to manage its inventory based on real-time orders placed through an e-commerce platform. This reduces the need for large stockpiles of inventory and ensures that the business can respond quickly to customer needs [20]. Additionally, by maintaining close digital contact with customers through CRM systems, social media, and other digital tools, the SME can build stronger relationships, anticipate customer needs, and enhance overall customer satisfaction [11].

In conclusion, the integration of just-in-time logistics and digital proximity offers SMEs a viable strategy to enhance their competitiveness in a post-pandemic market. By leveraging the benefits of both systems, SMEs can improve efficiency, reduce costs, and strengthen customer relationships, all while adapting to the challenges of a rapidly changing business environment [14-15].

### 3 Methodology

The research methodology for this project adopts a qualitative approach to explore the dynamics of small and medium-sized enterprises (SMEs) implementing digital proximity and just-in-time (JIT) logistics in a post-pandemic world. This chapter provides a detailed explanation of the research design, the philosophical approach, and the methods used for data collection and analysis, all of which are rooted in phenomenological inquiry and the use of focus groups.

#### 3.1 Research Design

The qualitative approach was selected due to the need to explore complex behaviors, processes, and relationships that are not easily quantifiable [22]. Qualitative research allows for an in-depth examination of the experiences of SMEs, particularly how they have adapted their operations in response to the COVID-19 pandemic by adopting digital strategies and JIT logistics. This design aligns with the study's aim to understand how these businesses perceive and implement changes in their operational frameworks, and how these strategies affect their sustainability and growth.

As Creswell et al. [23] highlight, qualitative research is particularly useful for capturing the meanings that participants assign to their experiences. Given the exploratory nature of the research, a non-experimental,

descriptive approach was chosen. This methodology does not involve the manipulation of variables or random assignment of participants but focuses on understanding phenomena within their natural contexts.

#### 3.2 Philosophical Approach: Phenomenology

Phenomenology, both as a philosophical movement and a methodological framework, forms the basis of this research. According to van Manen [24], phenomenology seeks to explore the lived experiences of individuals, aiming to uncover the essence of these experiences. This approach was deemed appropriate given the focus on understanding the real-world challenges and strategies that SMEs face, particularly in the adoption of digital proximity and JIT logistics.

Husserl's [25] phenomenological perspective, which emphasizes the intentionality of consciousness and the relationship between individuals and their experiences, guided the research. This perspective allowed the study to delve into the conscious experiences of SME owners and managers, focusing on how they interpret and respond to changes in supply chain management and customer engagement practices. The research aimed to "bracket" or set aside preconceived notions about digital proximity and logistics in order to fully understand participants' lived experiences [26].

The decision to employ phenomenology also aligns with the interpretative nature of the study. As the goal is to understand how SMEs navigate new digital and logistical landscapes, phenomenology provides the tools to examine these lived experiences, focusing on how participants make sense of and adapt to their evolving business environments.

#### 3.3 Data Collection Methods

##### 3.3.1. Focus Groups

Focus groups were employed as the primary method for data collection. This method allows for the collection of rich, qualitative data through group discussions, providing insights into shared experiences and collective perspectives [27]. The use of focus groups is especially pertinent for exploring how SMEs within a specific geographic or industry context—such as the dental supply chain—experience and adapt to external pressures like the COVID-19 pandemic and subsequent shifts in market dynamics.

A focus group was conducted with SME owners and managers from the dental supply industry in Baja California. The participants were selected based on their involvement in supply chain operations and their experience with digital proximity tools and JIT logistics. The groups were designed to encourage open dialogue, allowing participants to share their experiences, challenges, and strategies in adapting to new business practices.

Following Morgan's [28] guidelines for conducting focus groups, the discussions were facilitated by a moderator who used a semi-structured format with open-ended questions. This approach ensured that while

key themes were addressed, participants had the freedom to discuss topics that were most relevant to their experiences. The focus group sessions were recorded and transcribed for analysis, with the participants' consent, ensuring an accurate representation of their perspectives.

The focus groups were conducted remotely via Microsoft Teams due to ongoing social distancing measures. This method allowed for the participation of a broader range of SMEs from different regions, ensuring diverse perspectives on the challenges and opportunities presented by digital proximity and JIT logistics.

### 3.3.2. *In-Depth Interviews*

In addition to focus groups, in-depth interviews were conducted to gather more detailed individual experiences and insights. These interviews provided a more private setting where participants could discuss sensitive or detailed aspects of their business operations that may not have surfaced in the group discussions. Following the structure of phenomenological interviews, the conversations were centered around participants' lived experiences, with the interviewer adopting a listening and prompting role to allow the narratives to unfold naturally [26].

The interviews helped in contextualizing the experiences of SMEs within the framework of the research, adding depth to the group discussions and offering nuanced insights into how individual businesses have adapted to the pandemic's challenges.

## 3.4. Data Analysis

### 3.4.1. *Thematic Analysis*

The data analysis followed the guidelines for thematic analysis, as outlined by Braun and Clarke [29]. Thematic analysis is particularly useful in qualitative research for identifying, analyzing, and reporting patterns within data. This approach involves a step-by-step process: familiarizing oneself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report.

The transcribed data from focus groups and interviews were analyzed to identify key themes related to the adoption of digital proximity and JIT logistics. The themes were then categorized into broader thematic clusters, such as operational efficiency, customer engagement, supply chain disruptions, and digital integration.

This inductive approach to coding allowed the data to speak for itself, with themes emerging organically rather than being imposed by the researcher. This process aligns with the phenomenological emphasis on understanding participants' lived experiences, allowing their perspectives to shape the direction of the analysis.

### 3.4.2. *Coding and Categorization*

Once the key themes were identified, the data was coded and categorized. Coding was performed manually, following the phenomenological approach of isolating significant statements and meaning units [24]. These statements were then clustered into categories that reflected the essence of participants' experiences.

For example, one of the recurring themes was the tension between the need for digital proximity and the operational challenges of implementing JIT logistics in an uncertain market. This theme was further broken down into categories such as "technological adaptation," "inventory management," and "customer relationship management," each of which reflected specific aspects of participants' experiences.

### 3.4.3. *Phenomenological Reduction*

The final stage of analysis involved phenomenological reduction, a process described by Moustakas [26] as the distillation of experiences to their core essence. This involved revisiting the themes and categories to refine the analysis, ensuring that the final report accurately captured the lived experiences of participants without imposing external interpretations.

This process was particularly important for maintaining the integrity of the phenomenological approach, which prioritizes participants' voices and seeks to present their experiences as faithfully as possible.

## 3.5 Ethical Considerations

The research adhered to the ethical guidelines outlined by the American Psychological Association [30] for the treatment of human participants in research. Prior to the start of the focus groups and interviews, all participants were informed of the study's objectives, and written consent was obtained. Participants were assured of their right to withdraw from the study at any time without consequence. Additionally, steps were taken to ensure the confidentiality and anonymity of the participants, particularly in the transcription and reporting of data.

## 3.6 Limitations

While the qualitative approach offers deep insights into the experiences of SMEs, it is not without limitations. The findings from the focus groups and interviews are not generalizable to all SMEs, particularly those outside the dental supply chain or those operating in significantly different regional contexts. Additionally, the remote nature of the focus groups may have affected the dynamics of group interaction, potentially limiting the depth of discussion compared to in-person settings.

## 4 Results

The data collected from the focus groups and interviews provided rich qualitative insights into how small and medium-sized enterprises (SMEs) in the dental supply

sector have navigated the challenges of the COVID-19 pandemic by adopting digital proximity and just-in-time (JIT) logistics strategies. This chapter presents the main findings from the study, which are organized into thematic categories that emerged during data analysis. These categories include: operational efficiency, customer engagement through digital proximity, the impact of supply chain disruptions, and strategic adaptations.

#### **4. 1 Operational Efficiency**

One of the most significant themes to emerge from the data was the critical role that JIT logistics played in enhancing operational efficiency for SMEs. Participants consistently reported that the traditional model of maintaining large inventories was no longer viable due to the unpredictability of supply chains during the pandemic. The adoption of JIT logistics, while challenging, allowed SMEs to minimize excess inventory and improve cash flow, which was crucial for their survival.

Participants described how JIT logistics enabled them to respond more quickly to fluctuations in demand, particularly as customer preferences shifted during the pandemic. As Monden [15] highlights in the literature on the Toyota Production System, the reduction of waste and the synchronization of production with real-time demand are key elements of JIT logistics. The study's findings supported this, with participants emphasizing how they adjusted their procurement and production processes to align with the needs of their customers.

For example, one participant noted:

"We had to streamline our operations drastically. Keeping large inventories was simply too costly. Instead, we focused on maintaining just what we needed based on real-time data from our suppliers and customers. This shift helped us stay afloat during the worst of the pandemic."

However, participants also pointed out that implementing JIT logistics was not without its difficulties. Many SMEs faced challenges in coordinating with suppliers, who were themselves grappling with supply chain disruptions. These disruptions often led to delays in receiving critical materials, which in turn impacted the ability of SMEs to deliver products to their customers on time. This finding aligns with Guan et al. [9], who discuss how global supply chain disruptions during COVID-19 created significant obstacles for businesses.

#### **4.2. Customer Engagement through Digital Proximity**

The second key theme that emerged was the role of digital proximity in maintaining and enhancing customer engagement. Participants reported that during the pandemic, face-to-face interactions were largely replaced by digital communication channels, such as social media, email, and e-commerce platforms. The concept of digital proximity [10], involves using digital

tools to create a sense of closeness between businesses and customers, despite physical distance.

Many participants highlighted that their businesses had to rapidly adapt to this new digital landscape. While some SMEs were already familiar with digital platforms, others faced a steep learning curve. One participant remarked:

"We had no choice but to transition to digital. Our customers couldn't visit our store, so we had to bring the store to them. This meant building an online presence quickly and ensuring that our customers could find and order products easily."

Several SMEs turned to platforms such as Google Maps, Facebook Market, and Instagram Shopping to reach customers, promote products, and facilitate sales. These platforms provided SMEs with a cost-effective way to maintain visibility and continue serving their customers during lockdowns. The findings are consistent with those of Cockroft and Trejo [11], who underscore the importance of digital platforms in enhancing customer engagement and transaction willingness in the context of proximity.

However, participants also noted several challenges associated with the shift to digital proximity. For many SMEs, the transition required significant investment in technology and training, particularly for businesses that had previously relied on traditional brick-and-mortar operations. Additionally, participants mentioned the difficulty of competing with larger companies that already had established e-commerce infrastructures. This finding supports the observations of Rose et al. [17], who argue that while digital platforms offer significant opportunities for SMEs, they also present challenges related to technological adaptation and competition.

Despite these challenges, many participants reported that the shift to digital proximity ultimately strengthened their relationships with customers. The ability to offer personalized communication and immediate responses via digital channels allowed SMEs to maintain customer loyalty during a period of uncertainty. This is consistent with findings in the literature, which suggest that digital proximity can enhance customer retention and satisfaction by providing a more flexible and responsive customer service experience [10].

#### **4.3 Impact of Supply Chain Disruptions**

The third theme revolved around the impact of supply chain disruptions on SMEs in the dental supply industry. As Bhaskar et al. [8] explain, the COVID-19 pandemic caused unprecedented disruptions in global supply chains, particularly in the healthcare sector. The study's findings mirrored this trend, with participants describing how these disruptions affected their ability to source materials and maintain operations.

Many SMEs reported significant delays in receiving essential supplies, such as dental equipment and materials, which in turn delayed their ability to fulfill customer orders. One participant explained:

"We were constantly on edge, waiting for shipments that never arrived on time. It created a lot of stress

because we knew our customers were counting on us, but there was only so much we could do when the supply chain was so unreliable."

Participants also noted that the rising cost of materials due to supply shortages had a direct impact on their profitability. As one respondent stated:

"The prices of some materials skyrocketed, and we had to absorb some of those costs because we couldn't pass them all on to our customers."

These findings align with those of Abbaspour et al. [21], who document how supply chain failures during the pandemic led to price increases and material shortages, exacerbating the challenges faced by healthcare-related businesses.

#### 4.4 Strategic Adaptations

In response to the challenges posed by supply chain disruptions and the shift to digital proximity, SMEs developed a range of strategic adaptations to ensure their survival. One of the most prominent strategies was the diversification of supply sources. Many participants reported that they began to seek out alternative suppliers, both locally and internationally, to mitigate the risk of reliance on a single source. This strategy allowed them to maintain a more consistent flow of materials, even when global supply chains were disrupted.

Another adaptation involved strengthening relationships with existing suppliers. Participants described how they worked closely with their suppliers to establish more reliable delivery schedules and ensure that they could meet customer demand. This approach is consistent with the concept of relationship management in supply chains, as highlighted by Adams et al. [7], who argue that strong supplier relationships are crucial for maintaining operational stability during times of crisis.

Participants also discussed how they adopted more flexible pricing strategies in response to the rising costs of materials. While some SMEs passed on part of the cost to customers, others absorbed the costs to maintain customer loyalty. This finding underscores the importance of adaptability in business strategy [31], who emphasizes that businesses must be willing to adjust their pricing and operational models in response to external pressures.

## 5 Conclusions

The results of this study provide valuable insights into how SMEs in the dental supply industry have adapted to the challenges of the COVID-19 pandemic through the implementation of JIT logistics and digital proximity strategies. While these adaptations have helped SMEs maintain operational efficiency and customer engagement, they have also introduced new challenges related to supply chain disruptions and technological integration.

The findings suggest that SMEs must continue to develop innovative strategies to navigate the ongoing uncertainty in the global market. By leveraging digital proximity and JIT logistics, SMEs can position

themselves to respond more effectively to fluctuations in demand and maintain closer relationships with their customers. However, success will depend on their ability to address the challenges associated with supply chain disruptions, rising costs, and competition from larger firms.

The implementation of digital proximity and Just-in-Time (JIT) strategies in SMEs presents several challenges that limit their effectiveness and scalability in today's business context. First, SMEs often lack robust technological infrastructure to integrate digital proximity solutions and JIT systems efficiently. Limited access to high-speed networks, digital management tools, and specialized software hinders their ability to coordinate real-time inventory or adjust deliveries based on demand, leading to delays, inventory control errors, and difficulties in adapting to market changes.

Another significant obstacle is financing. Implementing these systems requires substantial investment in technology and training, but many SMEs operate on limited budgets, restricting their capacity to access additional resources for digitalization. This financial constraint puts them at a disadvantage compared to larger companies, which can absorb the investment costs and fully benefit from these strategies.

Additionally, adopting new technologies presents cultural and training barriers within SMEs. Resistance to change and a lack of digital skills among employees make it challenging to adapt to digital proximity and JIT systems, which are essential for successful implementation. The transition to digitalization involves not only acquiring new technology but also modifying processes and training staff—a slow and challenging process.

There is also a high dependency on suppliers and logistical limitations that particularly affect JIT implementation. Since this model requires timely and reliable supply chains, SMEs, which often have a limited network of suppliers, are more vulnerable to supply disruptions, directly impacting their ability to maintain a steady operational flow.

Finally, data integration difficulties limit the effectiveness of digital proximity, as many SMEs lack advanced data management systems and personnel trained in data analysis. This reduces their ability to make informed real-time decisions, limiting the potential of these systems to respond swiftly to market demands.

These challenges underscore the complexity of adopting digital proximity and JIT models in SMEs, highlighting the need for supportive policies, financing access, and training programs to help these businesses overcome these barriers and enhance their competitiveness in a post-pandemic environment.

#### 5.1 Future lines of research

Future research should explore the long-term impacts of digital proximity and just-in-time logistics on the sustainability and scalability of small and medium-sized enterprises (SMEs) in various industries beyond the dental supply sector. Comparative studies could

examine how these strategies are implemented across different sectors, identifying common challenges and successful adaptations. Additionally, quantitative studies could measure the financial and operational outcomes of these strategies over time, providing deeper insights into their effectiveness. Research could also focus on the integration of advanced technologies, such as artificial intelligence and machine learning, into digital proximity and logistics systems to enhance decision-making and optimize resource allocation for SMEs.

## 5.2 Recommendations

Based on the findings of this study, SMEs should continue to invest in digital tools and platforms to enhance customer engagement and maintain operational flexibility. Implementing robust digital proximity strategies, such as the use of e-commerce and social media, can help businesses build stronger relationships with customers while navigating market uncertainties. Additionally, SMEs should prioritize establishing reliable supplier networks to mitigate risks associated with supply chain disruptions. Adopting a hybrid approach to inventory management, combining JIT logistics with strategic stockpiling of critical materials, can help ensure continuity during periods of supply chain volatility. Lastly, continuous training and development in digital literacy for staff will be essential for adapting to the evolving demands of a more digitally connected marketplace.

## References

1. T. C. Contreras, An approach to medical tourism on Mexico's northern border, *Eurasia Border Review* 6(1), 45-62 (2015).
2. G. Judkins, Persistence of the US-Mexico border: expansion of medical-tourism amid trade liberalization, *Journal of Latin American Geography*, 11-32 (2007).
3. S. Horton, S. Cole, Medical returns: seeking health care in Mexico, *Social Science & Medicine* 72(11), 1846-1852 (2011).
4. E. P. Macias, L. S. Morales, Crossing the border for health care, *Journal of Health Care for the Poor and Underserved* 12(1), 77-87 (2001).
5. J. S. Abramowitz, B. J. Deacon, S. P. H. Whiteside, *Exposure therapy for anxiety: Principles and practice*, 2nd ed., The Guilford Press, New York (2020).
6. D. Dadnam, C. Dadnam, H. Al-Saffar, Pandemic bruxism, *British Dental Journal* 230(5), 271-271 (2021).
7. K. Adams, J. Snyder, V. A. Crooks, A critical examination of empowerment discourse in medical tourism: the case of the dental tourism industry in Los Algodones, Mexico, *Globalization and Health* 14(1), 1-10 (2018).
8. S. Bhaskar, J. Tan, M. L. Bogers, T. Minssen, H. Badaruddin, S. Israeli-Korn, H. Chesbrough, At the epicenter of COVID-19—the tragic failure of the global supply chain for medical supplies, *Frontiers in Public Health* 8, 821 (2020).
9. D. Guan, D. Wang, S. Hallegatte, S. J. Davis, J. Huo, S. Li, P. Gong, Global supply-chain effects of COVID-19 control measures, *Nature Human Behaviour* 4(6), 577-587 (2020).
10. M. Sansone, A. Colamatteo, Trends and dynamics in retail industry: focus on relational proximity, (2017).
11. S. Cockroft, R. Trejo, The role of proximity in willingness to transact: The effects of trust and culture, *AMCIS 2007 Proceedings*, 307 (2007).
12. Instituto Nacional de Estadística y Geografía (INEGI), México en cifras. Santos Reyes Yucuná, (2020).  
<https://www.inegi.org.mx/app/areasgeograficas/?ag=20>
13. OECD, SMEs going digital: Policy challenges and recommendations, Organisation for Economic Co-operation and Development, (2021).  
<https://goingdigital.oecd.org>
14. D. C. Hutchins, *Just in time*, Gower Publishing Ltd, (1999).
15. Y. Monden, *Toyota production system: an integrated approach to just-in-time*, CRC Press, (2011).
16. T. Ohno, N. Bodek, *Toyota production system: beyond large-scale production*, Productivity Press, (2019).
17. A.M. N. Rose, B. Md Deros, N. Nordin, *Lean manufacturing best practices in SMEs*, (2011).
18. E. Kurniawati, I. Huda, E-commerce opportunities in the 4.0 era: innovative entrepreneurship management development, *Polish Journal of Management Studies* 21, (2020).
19. M. Mazanai, Impact of just-in-time (JIT) inventory system on efficiency, quality, and flexibility among manufacturing sector small and medium enterprises (SMEs) in South Africa, *African Journal of Business Management* 6(17), 5786-5791 (2012).
20. T. S. Hong, M. Ghobakhloo, M. S. Sabouri, N. Zulkifli, Strategies for successful information technology adoption in small and medium-sized enterprises, *Information* 10(1), 36-67 (2019).
21. F. Abbaspour, S. Soltani, A. Tham, Medical tourism for COVID-19 post-crisis recovery?, *Anatolia* 32(1), 140-143 (2021).
22. E. Fossey, C. Harvey, F. McDermott, L. Davidson, Understanding and evaluating qualitative research,

- Australian & New Zealand Journal of Psychiatry  
36(6), 717-732 (2002).
23. J. W. Creswell, W. E. Hanson, V. L. Clark Plano, A. Morales, Qualitative research designs: Selection and implementation, *The Counseling Psychologist* 35(2), 236-264 (2007).
  24. M. van Manen, *Researching lived experience: Human science for an action-sensitive pedagogy*, Routledge, (2016).
  25. C. Moustakas, *Phenomenological research methods*, Sage, (1994).
  26. E. Husserl, *The crisis of European sciences and transcendental phenomenology: An introduction to phenomenological philosophy*, Northwestern University Press, (1970).
  27. R. A. Powell, H. M. Single, Focus groups, *International Journal of Quality in Health Care* 8(5), 499-504 (1996).
  28. D. L. Morgan, *Focus groups as qualitative research*, Sage, (1997).
  29. V. Braun, V. Clarke, Using thematic analysis in psychology, *Qualitative Research in Psychology* 3(2), 77-101 (2006).
  30. L. Turner, "Dental tourism": Issues surrounding cross-border travel for dental care, *Journal of the Canadian Dental Association* 75, (2009).