



Sustaining Tourism: Homestay supply chain strategies in Phra Nakhon Si Ayutthaya after COVID-19

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Abstract

This research delves into enhancing tourism development in Phra Nakhon Si Ayutthaya Province post the COVID-19 pandemic, with a specific focus on managing the tourism supply chain, particularly homestays. Amidst the challenges posed by the pandemic, understanding how homestay businesses can contribute to this enhancement becomes pivotal for sustainable tourism growth. The primary objective of this study is to investigate the role of tourism supply chain management, specifically homestays, in fostering tourism development in Phra Nakhon Si Ayutthaya Province after the COVID-19 pandemic. This involves examining the strengths, weaknesses, opportunities, and threats of homestay businesses, as well as analysing the material, information, and financial flows within their supply chain. A qualitative approach was employed, utilizing semi-structured interviews, purposive sampling, content analysis, and triangulation techniques. The study encompassed a final sample size of 35 individuals directly involved in homestay businesses in the region. These methodologies were chosen to comprehensively understand the dynamics of tourism supply chain management in the post-pandemic scenario. Through the analysis of strengths, weaknesses, opportunities, and threats of homestay businesses, significant findings emerged. Homestay businesses highlighted strengths in providing personalized activities and services, prioritizing safety measures, effective communication, and preparation, supporting local communities, efforts in environmental conservation, and sound financial management practices. These strengths underscored their adaptability to pandemic challenges, maintenance of high customer satisfaction, generation of income for local communities, preservation of traditions, sustainable tourism practices, and stable financial operations. Based on the findings, several recommendations are proposed to further enhance the role of homestay businesses in tourism development. These include fostering partnerships between homestay businesses and local authorities for infrastructure improvement, leveraging technology for efficient communication and booking management, promoting community engagement initiatives, implementing sustainable tourism practices, and providing financial support and training programs for homestay owners to enhance their financial management skills.

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Introduction

The Ministry of Tourism and Sports (2017) presented The National Tourism Development Plan No. 2 (2017–2021) underscoring the imperative of integrating local communities into the tourism sector, empowering them to cure authentic experiences rooted in their culture and heritage while upholding sustainability (Ministry of Tourism and Sports, 2017). Central to this approach was the promotion of community-based tourism (CBT) through initiatives aimed at empowering communities, ensuring quality standards, and fostering robust networks. Homestay tourism emerged as a pivotal strategy within this framework, facilitating local engagement, equitable benefits, and immersive cultural exchanges (Ramli et al., 2019; Ministry of Tourism and Sports, 2017).

However, the onset of the COVID-19 pandemic dealt a severe blow to the tourism industry, including homestays, necessitating swift government interventions such as financial aid, digital marketing support, and safety training to bolster recovery efforts (Kasikorn Research Center, 2020; Ministry of Tourism and Sports, 2021). With Thailand's tourism witnessing an unprecedented 84 percent decline due to the pandemic, there emerged a pressing need for a nuanced understanding of the tourism supply chain dynamics (Lamkham, 2021; Szpilko, 2017). Notably, existing research highlighted a gap in understanding partner selection within the homestay context, underscoring the necessity of examining homestay management in Phra Nakhon Si Ayutthaya province for post-pandemic sustainability (Ayutthaya Tourism and Sports, 2017; Chaichan, 2013).

In Phra Nakhon Si Ayutthaya, homestays certified under the Thailand Homestay Standard faced significant challenges amid the pandemic, necessitating adept supply chain management practices spanning upstream to downstream sources (Nonthasorn & Sritongmas, 2021). Despite these challenges, research by Nonthasorn and Sritongmas (2021) displayed the cost-effectiveness of Ayutthaya's homestays, highlighting the critical role of supply chain management in ensuring their viability. Leveraging Ayutthaya's rich cultural heritage, a comprehensive approach to the tourism supply chain is imperative for fostering sustainable tourism development in the post-COVID-19 era (Nonthasorn & Sritongmas, 2021). This study offers valuable insights, recommendations, and policy implications for enhancing homestay tourism supply chain management in Phra Nakhon Si Ayutthaya Province post-COVID-19. Its

contributions include empirical insights, practical recommendations, policy implications, and academic advancements, all aimed at fostering the sustainable development of the homestay tourism sector in the region.

Research Objectives

The primary objective of this study is to investigate the role of tourism supply chain management, specifically homestays, in fostering tourism development in Phra Nakhon Si Ayutthaya Province after the COVID-19 pandemic. This involves examining the strengths, weaknesses, opportunities, and threats of homestay businesses, as well as analyzing the material, information, and financial flows within their supply chain.

Literature Review

Theories and Concepts

The researchers conducted a study on the management of the tourism supply chain in Phra Nakhon Si Ayutthaya Province with the aim of promoting sustainable tourism development in the post-COVID-19 era. The study was based on a thorough review of relevant literature and the application of relevant theories and concepts. The objectives of the study were as follows:

The Context of COVID-19 in Hospitality Industry

The COVID-19 pandemic has reshaped the landscape of the hospitality industry, necessitating significant adaptations in business models to meet evolving consumer needs and navigate the challenges posed by disruptions in the external business environment (Alkier et al., 2023). This crisis has accelerated the adoption of new digital technologies and innovative approaches in hotels, including localised guest services, IoT, mobile app check-ins, contactless payments, and smart room technologies (Alkier et al., 2023). These technological advancements have not only enhanced guest experiences but also contributed to sustainability efforts by enabling lower energy and water consumption and sourcing locally produced, sustainable food for restaurants (Alkier et al., 2023).

Moreover, the pandemic has intensified the effects of disruption, highlighting the need for greater flexibility in business strategies and the adoption of new executive management functions focusing on resilience, growth,

business transformation, and sustainable development (Alkier et al., 2023). In this regard, it is crucial for hotel firms to recognize the necessity of making radical changes proactively rather than reactively responding to external disruptions (Alkier et al., 2023). Additionally, hotels must adopt business models that treat all stakeholders equally and form partnerships with competitors to thrive in an uncertain future (Alkier et al., 2023).

In parallel, the governance of supply chains in the hospitality industry is undergoing transformation, with digital technologies playing a central role in reshaping governance structures (Gruchmann et al., 2022). Digital technologies, particularly blockchain, support governance from the bottom up, facilitating the mobilization and allocation of critical resources with less significant power asymmetries in supply chains. Blockchain technology offers opportunities for improved transparency, traceability, and sustainability performance in supply chains, although its implementation presents inherent challenges such as increased IT-handling complexity and storage costs (Gruchmann et al., 2022).

Hence, the literature reviewed underscores the importance of initiative-taking adaptation to changing business environments, the adoption of new digital technologies, and the reshaping of governance structures in the hospitality industry to strengthen resilience, sustainability, and competitiveness. Integrating recent scholarly works by Alkier et al. (2023) and Gruchmann et al. (2022) enhances the theoretical grounding of the research, providing valuable insights into the evolving landscape of tourism supply chain management and governance practices.

The Concept of Supply Chain Management

Supply chain management (SCM) entails the intricate processes and strategies involved in transforming raw materials into finished products and subsequently delivering them to consumers (Intuluck, 2022). It encompasses a network of interconnected businesses and organizations engaged in the production and distribution of goods and services. Intuluck (2022) emphasizes that SCM strategies are designed to optimize cost efficiency, operational streamlining, and customer satisfaction. This involves implementing a comprehensive and integrated approach that spans the entire supply chain, from upstream activities to downstream value creation for end-consumers. Janvier-James (2012) points out that SCM involves the systematic optimization of supply chain activities, encompassing maintenance, planning,

and processes, all aimed at meeting customer demands and expectations. Porter (2004) highlights the link between SCM and strategy to establish a competitive advantage by differentiating through unique activities or innovative execution. In today's competitive market with evolving customer expectations and shorter product lifecycles, SCM has taken center stage. Attheerawong & Chantraprakakul (2006) underscore the importance of integrating various supply chain departments to ensure efficient production and distribution while minimizing costs and meeting customer service levels. Even in the hospitality industry, SCM proves advantageous, leading to cost reductions and improved customer service through enhanced product availability and shorter cycle times (Cho et al., 2012). Furthermore, the COVID-19 pandemic has highlighted SCM's pivotal role in addressing supply and demand challenges (Craighead et al., 2020). In the tourism sector, the concept of Tourism Supply Chain Management (TSCM) has gained significance, focusing on optimizing processes within the industry (Panich & Srithongphim, 2021). TSCM involves a network of tourism organizations engaged in various travel product and service activities (Sangthong et al., 2021).

In conclusion, SCM is crucial for efficient operations and customer satisfaction. It involves strategic planning and coordination across the supply chain, ensuring the timely delivery of goods and services. Material flow is a key aspect of SCM, minimizing inventory points and enhancing production efficiency (Untari & Satria, 2021). The configuration and planning of warehouse areas also play a vital role in the distribution process.

In making informed decisions, supply chain partners require access to pertinent information about material and supply needs. The flow of information in the supply chain hinges on trust and commitment among suppliers, a pivotal factor for seamless data exchange. Untari and Satria (2021) identified essential markers for effective information flow, including coordination processes, product separation, stakeholder collaboration, and supplier and inventory efficiency. The organization employs financial data to assess the financial stability of supply chain partners and customers. This assessment is critical for smooth supply chain management, as weak financial health could jeopardize all involved parties. The organization also employs an accounting system for precise record-keeping of project-related financial transactions. This encompasses allocating expenses accurately, implementing controls for transaction preparation and approval, ensuring transaction accuracy,

and providing crucial financial status information for the supply chain. Untari and Satria (2021) highlight indicators such as initial funding, project execution, payouts, market price fluctuations, payment terms, project fund flow, capital for business management, government financial/banking policies, investment capabilities, and pricing/payment agreements.

The Concept of Tourism by Communities and Homestays in Ayutthaya Province

The concept of community-driven tourism and homestays in Ayutthaya Province contributes to local economic growth. The Department of Tourism prioritizes using local resources like capital, identity, and technology to boost community-based tourism through homestays (Department of Tourism, 2015). Ayutthaya, a UNESCO World Heritage Site with historic significance, attracts tourists. Homestays like Sai Noi Homestay, Homestays Koh Birth, and Homestays Khlong Rang Jorakae in Phra Nakhon Si Ayutthaya are certified by the Ministry of Tourism and Sports, appealing to both Thai and foreign tourists (Ayutthaya Tourism and Sports, 2017; Nonthasorn & Sritongmas, 2021).

Concepts on SWOT Analysis and TOWS Matrix

SWOT analysis evaluates internal strengths and weaknesses and external threats. Divided into internal and external parts, it guides operational plans (Wheelen et al., 2017). Gurl and Tat (2017) note its importance in assessing competitiveness. TOWS matrix, derived from SWOT, helps strategize by aligning strengths with opportunities and addressing weaknesses (Wheelen et al., 2017). The TOWS matrix, derived from the SWOT analysis, facilitates the alignment of internal strengths with external opportunities to develop strategies that capitalize on existing advantages. For instance, expanding into new tourism communities and diversifying activities can leverage the strengths of tailored experiences while addressing weaknesses such as limited accommodation options. Similarly, addressing threats like economic downturns through alternative income sources aligns with internal strengths in community contribution and cultural preservation. Therefore, using the concept of homestay tourism supply chain management for analysis, the results should be structured to follow this concept by integrating findings from the SWOT analysis and TOWS matrix to inform strategic planning and decision-making within the homestay tourism supply chain.

Methodology

This qualitative research aimed to enhance tourism development in Phra Nakhon Si Ayutthaya province through tourism supply chain management of homestays in a post-COVID19 era. The study was conducted from May to July 2022, utilizing techniques such as semi-structured interviews and purposive sampling method based on the conceptual framework of Leng and Zailani (2012) and Untari and Satria (2021). The research focused on data collection from three specific areas: Sai Noi Homestay, Koh Kerd Homestay, and Khlong Rang Jorakae Homestay. Participants included entrepreneurs in the upstream business sector (9 samples), operators in the middle stream business sector (3 homestay businesses and transport operators), as well as homestay tourists as the downstream and tourism experts (18 and 3 samples, respectively). In this study, the sample groups included participants from various sectors of the homestay tourism supply chain in Phra Nakhon Si Ayutthaya province. The sample groups were divided into three main categories: Entrepreneurs in the upstream business sector: This group consisted of 9 individuals involved in the upstream aspects of the homestay tourism supply chain, such as homestay owners, local suppliers, and other stakeholders contributing to the initial stages of the tourism experience. Operators in the middle stream business sector: This group comprised 3 homestay businesses, transport operators, and attractions/activity operators responsible for managing and facilitating the homestay experience for tourists. Groups involved in the downstream business: This group included 15 homestay tourists and 3 tourism experts who represent the end-users and industry professionals providing insights into the overall tourism experience and industry dynamics.

A deeper understanding of operational, tactical, and strategic concerns in the context of supply chain management (SCM) is essential for aligning the chosen methodology with the intended research focus. Operational concerns in SCM revolve around the day-to-day activities and processes involved in managing the flow of goods, services, and information within the supply chain. This includes aspects such as inventory management, transportation coordination, supplier relationships, and production scheduling. Understanding operational concerns involves examining how homestay businesses in Phra Nakhon Si Ayutthaya province manage their daily operations within the tourism supply chain, including their procurement practices, inventory management systems, and coordination operations.

Tactical concerns in SCM focus on medium-term planning and decision-making aimed at optimizing the performance of the supply chain. This includes strategies related to supplier selection, pricing strategies, capacity planning, and quality management. In the context of homestay tourism supply chain management, tactical concerns may involve assessing how businesses in Phra Nakhon Si Ayutthaya province make decisions regarding partnership selection, pricing of their services, capacity planning for accommodation, and ensuring the quality of guest experiences. Strategic considerations in SCM involve long-term planning and decision-making aimed at achieving the overall objectives of the supply chain and aligning them with the organization's broader goals. This includes strategies related to market positioning, network design, innovation, and sustainability. Aligning the chosen methodology with strategic considerations involves ensuring that the research approach addresses long-term goals such as sustainable tourism development, innovation in service offerings, and strategic partnerships within the tourism supply chain in Phra Nakhon Si Ayutthaya province.

The excerpt highlights the dominance of positivism as the prevailing paradigm in tourism research, particularly evident in the prominence of quantitative methods over qualitative ones (Riley & Love, 2000). The historical development of this trend, tracing back to Descartes' objectivism and quantification, indicates a gradual emergence of interpretive paradigms, albeit lagging. Sociologists and anthropologists have been pioneers in qualitative research methods, contributing significantly to its adoption in various disciplines, including tourism. The scarcity of qualitative tourism research can be attributed to several factors. First, there is a lack of exposure and training in qualitative methods among scholars and doctoral programs in tourism-related fields, leading to a reliance on positivist paradigms. Second, qualitative research is underrepresented in tourism journals, which often prioritize applied research with practical implications for the industry's economic success. This orientation towards profitability discourages qualitative studies that may not offer generalizable findings or direct economic benefits. The information is provided as follows:

In this study, the sample groups included participants from various sectors of the homestay tourism supply chain in Phra Nakhon Si Ayutthaya province. The sample groups were divided into three main categories:

Entrepreneurs in the upstream business sector: This group consisted of 9 individuals involved in the upstream aspects of the homestay tourism supply chain, such as

homestay owners, local suppliers, and other stakeholders contributing to the initial stages of the tourism experience.

Operators in the middle stream business sector: This group comprised 3 homestay businesses, transport operators, and attractions/activity operators responsible for managing and facilitating the homestay experience for tourists.

Groups involved in the downstream business: This group included 15 homestay tourists and 3 tourism experts who represent the end-users and industry professionals providing insights into the overall tourism experience and industry dynamics.

The Homestay Tourism Supply Chain Management is the concept for analysis in this study. As such, the results of the study should align with this conceptual framework by examining various aspects of the homestay tourism supply chain, including upstream, middle stream, and downstream operations. The findings should address how different stakeholders within the supply chain contribute to tourism development in Phra Nakhon Si Ayutthaya province in the post-COVID19 era, focusing on enhancing operational efficiency, improving customer experiences, and fostering sustainable growth.

This study utilized multiple data collection tools to gather qualitative insights from participants involved in the homestay tourism supply chain. These tools included:

Document Analysis: This method involved examining relevant documents, concepts, and theories related to tourism supply chain management. The documents were such as industry reports, academic literature, and government policies to inform the research framework and guide data collection.

Semi-Structured Interviews: The semi-structured interviews with participants from different sectors of the homestay tourism supply chain. The interviews were designed based on the conceptual framework of Leng and Zailani (2012) and Untari and Satria (2021) to explore various aspects of tourism development and supply chain management. The sample groups for semi-structured interviews included entrepreneurs in the upstream business sector, operators in the middle stream business sector, homestay tourists, and tourism experts.

In-Depth Interviews: In addition to semi-structured interviews, the in-depth interviews were with selected participants to gain deeper insights into specific topics related to tourism supply chain management and post-COVID19 tourism development. The sample groups for in-depth interviews likely overlapped with those for semi-structured interviews, comprising individuals representing different segments of the homestay tourism supply chain.

Ethical Considerations

This research has been approved by the Ethics Review Board of Rangsit University, Thailand. The reference number for Documentary Proof of Exemption was DPE.No. RSUERB2022-020.

Results

This study conducted an in-depth investigation on the impact of the COVID-19 pandemic on the supply chain management of the homestay business in Phra Nakhon Si Ayutthaya province. By analyzing the environment through a SWOT analysis, the supply chain management of the homestay business in Phra Nakhon Si Ayutthaya province was found to have strengths, weaknesses, opportunities, and threats. The components of the supply chain of the business were analyzed accordingly, including material flows, information flows, and financial flows. Firstly, financial flow's strength is customizing passenger activities and services. This includes food and services. The homestay industry has identified the customization of guest experiences as a crucial competitive advantage and a strength derived from effective information flow. Through an initial detailed orientation process, homestay operators gather comprehensive data about guests' interests, learning objectives, preferences, demographic profiles, and dietary requirements. This information acquisition phase is pivotal in tailoring the service offerings to meet the distinct needs and expectations of each guest or guest group. The homestay operators leverage this guest-centric information to curate a diverse range of immersive activities and experiences. These may include, but are not limited to, visits to local farms, traditional herbal massage treatments, culinary experiences such as Thai dessert-making workshops, cultural activities like weaving and Thai dance classes, music concerts, riverboat cruises, and opportunities to savor authentic local cuisine. By presenting this array of options to guests, homestays empower them to exercise autonomy in selecting activities that align with their personal interests and preferences, thereby enhancing their overall satisfaction and perceived value. The customization process extends beyond activities to encompass personalized meal preparation. Homestay operators leverage guest information, such as age, origin, group composition (e.g., families or teenagers), and culinary preferences, including spice tolerance levels, to tailor the

dining experience. This attention to detail ensures that guests receive meals that cater to their specific tastes and dietary requirements, further elevating the overall guest experience. Moreover, homestays adopt a guest-centric approach by refraining from imposing predetermined activity packages. Instead, they present a comprehensive menu of options, allowing guests to exercise agency in crafting their desired itinerary. This customer-centric approach fosters a sense of personalization and enhances the perceived value of the homestay experience. To ensure guest safety and facilitate effective communication, homestays prioritize the provision of emergency contact information, first-aid kits, and robust security measures. These may include dedicated police hotlines and regular patrol car monitoring within the premises. Such measures not only contribute to guest safety but also foster a sense of security and trust, which are essential components of a positive guest experience. In essence, the strength of information flow within the homestay industry lies in its ability to facilitate the gathering of comprehensive guest data, which is then leveraged to customize activities, dining experiences, and support services. This tailored approach ensures a unique and memorable stay for each guest, thereby enhancing customer satisfaction, perceived value, and competitive advantage within the hospitality sector.

Secondly, the material flows, by which the homestay industry exhibits a comprehensive approach to sustainable tourism, integrating accommodation, gastronomy, environmental stewardship, and value creation through an intricate web of material flows. This symbiotic ecosystem fosters economic development while preserving cultural heritage and promoting ecological consciousness. Accommodation provisions that homestays offer give immersive lodging experiences within the fabric of local communities. These establishments prioritize guest safety through the implementation of comprehensive measures, including well-stocked first-aid cabinets, dedicated emergency hotlines, and coordinated police patrols. Furthermore, efficient communication channels, such as group messaging platforms and telephonic coordination, facilitate seamless guest arrivals and ensure accommodation readiness. Furthermore, for the culinary experiences, the homestay model embraces culinary authenticity by providing guests with opportunities to savour locally sourced and traditionally prepared cuisine. Guest preferences and dietary requirements are meticulously considered, ensuring a personalized and inclusive dining experience. Moreover, this approach fosters economic inclusion by integrating local community members, such as seafood purveyors and traditional

Thai dessert artisans, into the value chain, enabling them to derive income from the sale of their offerings to visitors. Besides, the homestays exemplify a commitment to environmental sustainability through the implementation of eco-friendly waste management practices. Organic waste and food scraps are repurposed as fertilizers, nourishing adjacent fruit trees and minimizing waste generation. Additionally, natural pest control methods, such as the introduction of birds, are employed, reducing the reliance on harmful chemicals. Plastic waste is minimized, and traditional beliefs, such as feng shui principles, are respected in waste disposal practices. Furthermore, homestays actively engage in environmental education, fostering awareness among visitors regarding conservation practices, such as maintaining waterway cleanliness and discouraging littering. This approach cultivates a symbiotic relationship between tourism and environmental preservation. The homestay industry serves as a catalyst for cultural preservation and economic empowerment. By offering immersive experiences that showcase local traditions, such as traditional dances, songs, and harvesting activities, homestays contribute to safeguarding intangible cultural heritage. Simultaneously, these experiences create value-added offerings for visitors, enriching their travel experiences. Moreover, homestays facilitate economic inclusion by providing platforms for community entrepreneurs and artisans to generate income through the sale of their products and services to visitors. These range from locally crafted herbal juices and desserts to handcrafted souvenirs, thereby fostering sustainable livelihoods within the community. Local attractions, such as temples, farms, and distinctive natural formations like crocodile waterways, are seamlessly integrated into the tourism value chain, generating revenue for the community while promoting cultural exchange and appreciation. Notably, the homestay model fosters a reciprocal exchange of value, as visitors contribute to merit-making activities through donations to local temples, fostering a sense of social responsibility and cultural immersion. Additionally, unemployed community members are empowered to share their knowledge and wisdom with visitors, creating value through intellectual exchange and fostering intergenerational connections. Thus, the homestay industry exemplifies a holistic approach to sustainable tourism, harmonizing accommodation, culinary experiences, environmental stewardship, and value creation through an intricate tapestry of material flows. This multifaceted ecosystem not only drives economic development but also preserves cultural heritage, promotes ecological consciousness, and fosters

social inclusivity, thereby contributing to the attainment of sustainable development goals.

Lastly, the information flows, the homestay industry exemplifies a holistic approach to sustainable tourism, seamlessly integrating multifaceted dimensions of information flows that encompass guest safety, personalized hospitality, curated tour programs, cultural preservation, value creation, financial management strategies, and strategic public relations initiatives. Prioritizing guest safety and well-being, homestay operators implement comprehensive measures to foster a secure and comfortable environment. Well-stocked first-aid kits, dedicated emergency hotlines, and coordinated collaboration with local healthcare facilities and law enforcement agencies ensure prompt assistance and transportation in case of emergencies. Furthermore, water-based activities are safeguarded through the provision of life jackets, underscoring the industry's commitment to mitigating potential risks. The homestay model epitomizes the essence of personalized hospitality, tailoring experiences to cater to the distinct preferences, dietary requirements, and interests of each guest. Through diligent information gathering, homestay hosts curate customized meals and activities, ensuring an immersive and enriching experience that resonates with the individual visitor's needs and aspirations. Moreover, hosts are trained to proactively inquire about guests' well-being, promptly addressing any concerns or issues that may arise, fostering a sense of attentive care and hospitality. Homestay operators curate a diverse array of tour programs that immerse visitors in the authentic tapestry of local life. These programs encompass a myriad of activities, ranging from boat tours that navigate the region's waterways to culinary experiences that celebrate local cuisine, traditional Thai massages that promote well-being, handicraft workshops that showcase artisanal craftsmanship, and cultural performances that preserve intangible heritage. Moreover, these programs are designed to provide insights into the local lifestyle, traditions, and primary economic activities, such as agriculture and fishing, fostering a deeper appreciation for the community's cultural and economic fabric. Recognizing the intrinsic value of cultural heritage, homestays serve as catalysts for preserving and promoting local traditions. These establishments actively encourage the participation of young community members in cultural activities, such as traditional dances, songs, festivals, and artisanal crafts like weaving. By fostering intergenerational knowledge transfer, homestays contribute to the perpetuation of cultural practices, ensuring that the rich tapestry of local heritage is woven

into the fabric of future generations. The homestay industry serves as a powerful engine for value creation and economic empowerment within local communities. By integrating community members into the tourism value chain, homestays facilitate income generation through the provision of services, the sale of locally produced goods such as herbal juices, desserts, and handicrafts, and active participation in tourism activities. Furthermore, local attractions, including temples and natural sites, are seamlessly integrated into the tourism experience, contributing to the diversification of revenue streams and fostering economic resilience within the community. Recognizing the importance of financial sustainability, homestay groups implement robust management strategies to navigate the complexities of the tourism industry. These include the implementation of centralized funds for managing expenses and facilitating access to low-interest loans, enabling members to overcome financial challenges and invest in growth opportunities. Additionally, cancellation policies, such as requiring advance deposits, are employed to secure resources and prevent last-minute disruptions, ensuring a seamless and trustworthy booking process. Homestay groups actively engage in strategic public relations initiatives to promote community-based tourism across the entire sub-district. These efforts encompass highlighting local lifestyles, cultural traditions, and economic activities, positioning the region as a destination that offers authentic and immersive experiences. Furthermore, initiatives are undertaken to improve hygiene standards, accommodation facilities, and infrastructure, thereby enhancing the overall tourism experience and fostering a positive perception among potential visitors. Consequently, the homestay industry's multidimensional approach to information flows exemplifies a holistic and sustainable model of tourism development. By seamlessly integrating guest safety protocols, personalized hospitality, curated tour programs, cultural preservation efforts, value

creation opportunities, financial management strategies, and strategic public relations initiatives, the industry fosters economic growth, cultural preservation, and environmental stewardship, aligning with the principles of sustainable development and contributing to the attainment of global sustainability goals. The results of interview coding illustrated in [Figure 1](#) based on the collection of primary and secondary data, are as follows:

The qualitative data analysis resulted in the identification of six dimensions essential for sustaining tourism, indicated in [Figure 2](#).

From the insights gathered from these interviews, it has been established that the SWOT analysis and TOWS Matrix are executed as following:

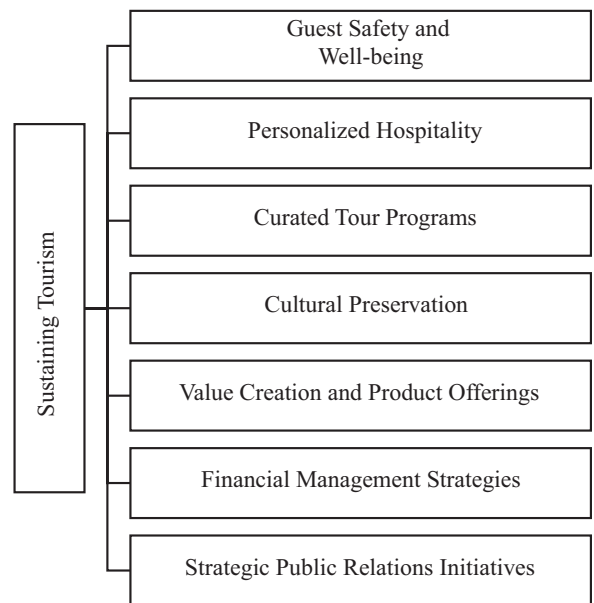


Figure 2 The six dimensions of sustained tourism

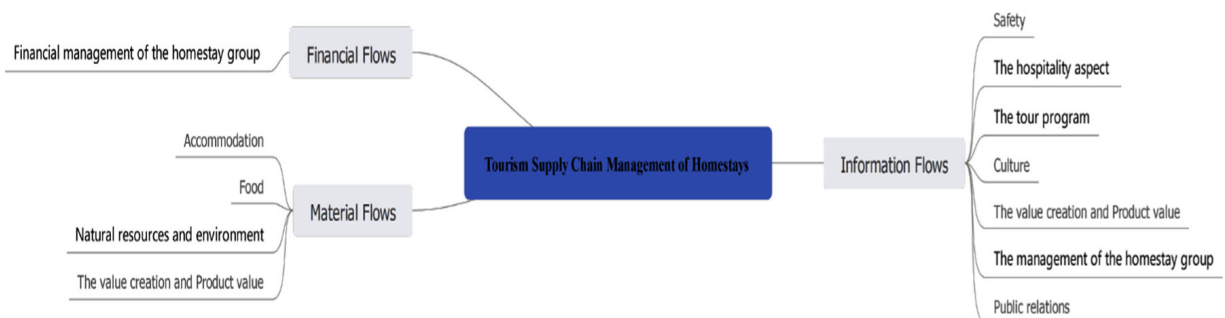


Figure 1 Interview coding

SWOT Analysis

The findings from the SWOT analysis and the TOWS matrix provide valuable insights into the strengths, weaknesses, opportunities, and threats facing homestays in Phra Nakhon Si Ayutthaya Province. These findings offer a comprehensive understanding of the current state of homestay tourism and highlight areas for improvement and strategic Intervention (Table 1). However, there is some ambiguity regarding the specific impact of the post-COVID-19 environment on homestay tourism in the province.

Strengths

The strengths identified, such as tailored activities, community contribution, safety measures, and effective communication, demonstrate the adaptability and resilience of homestays in addressing tourist needs and enhancing the visitor experience. These strengths position homestays as attractive options for tourists seeking authentic and culturally immersive experiences.

Weaknesses

The weaknesses highlighted, including inconsistent cleanliness standards and limited accommodation options, underscore the challenges faced by homestays in maintaining quality standards and meeting diverse tourist demands. Addressing these weaknesses is crucial for enhancing customer satisfaction and competitiveness in the market.

Opportunities

The opportunities identified, such as expanding the homestay model, investing in tourism infrastructure, and diversifying activities, present avenues for growth and development in Phra Nakhon Si Ayutthaya Province. These opportunities align with the province's tourism goals and can contribute to its overall economic and social development.

Threats

The threats identified, such as competition from other destinations and the need for efficient transportation and internet connectivity, highlight external factors that can impact the success of homestays in the province. Mitigating these threats requires strategic planning and collaboration among stakeholders to ensure sustainable tourism development.

TOWS matrix strategies

The strategies outlined in the TOWS matrix provide actionable steps for leveraging strengths to capitalize on opportunities, addressing weaknesses to mitigate threats, and maximizing the potential of homestay tourism in Phra Nakhon Si Ayutthaya Province. These strategies focus on enhancing competitiveness, improving customer satisfaction, and promoting sustainable growth.

Ambiguity regarding post-COVID-19 impact

While the manuscript discusses strategies for enhancing resilience in the post-COVID-19 era, there is a lack of specific analysis regarding the unique challenges and adaptations faced by homestays in response to the pandemic. Clarifying how the identified strategies address post-pandemic challenges and contribute to resilient supply chain management practices is essential for enhancing the relevance and applicability of the research findings. Additionally, integrating insights from relevant literature on post-pandemic tourism trends and strategies can enrich the analysis and provide a more comprehensive understanding of the topic.

TOWS Matrix

SO (Strengths-Opportunities) strategies

This strategic approach involves identifying new villages for tailored activities. Expanding into these areas attracts new markets, increases revenue, and offers unique experiences. Each village's cultural and

Table 1 SWOT analysis

S	W
1. Tailored activities and services for tourists 2. Support for the local community 3. Safety measures in place 4. Environmental conservation efforts 5. Effective communication and preparation	1. Lack of standardization in cleanliness 2. Limited accommodation options 3. Dependence on tourists for income
O	T
1. Expansion to additional villages 2. Improved tourism infrastructure 3. Diversifying activities and services	1. Homestays face external threats from competitor destinations. 2. Efficient transport and internet are vital for homestay success. 3. Strategic planning and collaboration are needed to overcome these challenges.

natural attractions can be highlighted through guided tours and workshops, setting the business apart. This expansion also benefits the local community through job creation and income generation, promoting sustainable development.

WT (Weaknesses -Threats) strategies

To counter the lack of standardization, enforcing cleanliness standards can prevent dissatisfaction and negative reviews. Providing varied accommodation options improves competitiveness and addresses limited lodging choices. Developing alternative community income sources reduces dependency on tourism, enhancing resilience against economic downturns and natural disasters, ensuring sustainable growth.

WO (Weaknesses-Opportunities) strategies

Utilizing eco-tourism as an alternative, addresses limited lodging weaknesses and attracts environmentally conscious tourists. This aligns with the eco-conscious traveler segment, diversifies offerings, and mitigates ecological threats. It also taps into the demand for sustainable and responsible destinations

ST (Strengths-Threats) strategies

Implementing targeted marketing emphasizing safety leverages existing measures, distinguishes from competitors, and counters threats from other destinations. Forming partnerships broadens visitor appeal, diversifies the base, and increases resilience against economic challenges and natural disasters.

In conclusion, the strategies outlined in the TOWS matrix provide actionable steps for leveraging strengths to capitalize on opportunities, addressing weaknesses to mitigate threats, and maximizing the potential of homestay tourism in Phra Nakhon Si Ayutthaya Province. These strategies focus on enhancing competitiveness, improving customer satisfaction, and promoting sustainable growth. While the manuscript discusses strategies for enhancing resilience in the post-COVID-19 era, there is a lack of specific analysis regarding the unique challenges and adaptations faced by homestays in response to the pandemic. Clarifying how the identified strategies address post-pandemic challenges and contribute to resilient supply chain management practices is essential for enhancing the relevance and applicability of the research findings. Additionally, integrating insights from relevant literature on post-pandemic tourism trends and strategies can enrich the analysis and provide a more comprehensive understanding of the topic.

Recommendations

The gap remaining between this study and existing studies lies in the specific focus on homestay tourism supply chain management in Phra Nakhon Si Ayutthaya Province in the post-COVID-19 era. While the existing studies provide valuable insights into tourism supply chain management in general and some aspects of homestay operations, they do not specifically delve into the unique challenges, opportunities, and strategies pertaining to homestay tourism in this province during and after the COVID-19 pandemic. Furthermore, the existing studies primarily offer a theoretical understanding or provide general recommendations for supply chain management in the tourism industry, without a specific application to the context of Phra Nakhon Si Ayutthaya Province. Thus, there is a gap in the literature regarding empirical research that investigates the practical implications and effectiveness of supply chain management strategies tailored to the homestay tourism sector in this specific region, especially in response to the challenges posed by the COVID-19 pandemic.

Upstream – Midstream – Downstream

According to Panich and Srithongphim's (2021) research, Tourism Supply Chain Management (TSCM) can be defined as a complex network comprising various tourism organizations engaged in diverse activities associated with the provision of travel products and services. This definition is further supported by the study conducted by Sangthong et al. (2021), who emphasize the crucial role of TSCM in facilitating planning, development, and governmental support within the tourism industry. Furthermore, Chaichan (2013) offers insight into TSCM by describing it as the interconnectedness of activities aimed at ensuring the seamless operation of the tourism process and enhancing satisfaction among tourists. These scholars underscore the significance of coordination, collaboration, and the efficient flow of materials, information, and financial resources throughout the entire tourism supply chain.

Tourism Supply Chain Conditions According to Thai Homestay Standards

Effective material flow within the tourism supply chain is crucial for optimizing operations and ensuring timely delivery of products and services in Thai homestays. Untari and Satria (2021) emphasized

indicators of effective material flow, including material delivery, procurement scheduling, adequacy of materials, elimination of waiting times, and efficient storage and packaging management. Thai homestays need to focus on these aspects to minimize inventory points, streamline the production process, and enhance overall operational efficiency. Furthermore, the information flows that represent the smooth and efficient information flow is essential for effective coordination and decision-making within the tourism supply chain of Thai homestays. Coordination procedures, product separation, cooperation among project stakeholders, and the efficiency of suppliers and inventory information processes are key indicators (Untari & Satria, 2021). Thai homestays should prioritize the exchange of relevant and accurate information among supply chain partners to ensure seamless operations and enhance overall supply chain performance. Besides, the financial flow plays a vital role in evaluating the financial stability of supply chain partners and customers in Thai homestays. Untari and Satria (2021) highlight indicators related to financial flow, including initial funding, project implementation, payout, market price fluctuations, terms of payment, flow of project funds, capital in business management, government policy, investment capabilities, and pricing and payment agreements. It is essential for Thai homestays to establish an effective accounting system to accurately record financial transactions, allocate expenditures properly, implement controls for transaction preparation and approval, and provide important financial status information within the supply chain.

SWOT of the Tourism Supply Chain According to Thai Homestay Standard

The tourism supply chain in Thai homestays demonstrates strengths in efficient material flows (Untari & Satria, 2021). These homestays effectively manage material delivery, procurement scheduling, and storage management. Additionally, they prioritize seamless information flows, ensuring coordination and cooperation among project stakeholders (Untari & Satria, 2021). Furthermore, Thai homestays exhibit strong financial flows, possessing a well-established accounting system that enables accurate financial recording, expenditure allocation, and important financial status information, as mentioned by Untari and Satria (2021). However, potential weaknesses exist within the tourism supply chain of Thai homestays. There may be disruptions in material flows, leading to delays or inadequate material supply, which can impact operational efficiency. Incomplete

information flows, including gaps or delays in information exchange among supply chain partners, can hinder effective decision-making and coordination. Financial instability within the supply chain is also a concern, as some stakeholders may face financial challenges, posing risks to overall supply chain performance. Thai homestays have opportunities to enhance their supply chain management. By focusing on optimizing material flow processes, such as minimizing waiting times and improving storage and packaging management, they can further streamline operations. Investing in technologies and systems to facilitate efficient information flows is another opportunity, ensuring timely and accurate data exchange among supply chain partners. Strengthening financial stability through collaborative efforts and financial planning can also be pursued to mitigate risks and enhance the overall performance of the tourism supply chain. Threats to the tourism supply chain in Thai homestays include disruptions caused by external factors such as natural disasters or economic downturns, which can impact material flows, information exchange, and financial stability within the supply chain. Additionally, competition in the industry from other accommodation providers or tourism destinations poses a threat, necessitating constant innovation and differentiation in supply chain management to maintain a competitive edge.

Guideline for Homestay Tourism Supply Chain management in Phra Nakorn Si Ayutthaya province to develop tourism in the Post-COVID-19 Era

Strengthen collaboration and communication: Based on the previous literature by Panich and Srithongphim (2021), establishing effective communication and collaboration among tourism organizations involved in the supply chain is crucial. This includes input sellers, tour operators, travel agents, and customers. In the post-COVID-19 era, it is essential to enhance communication channels to ensure a smooth flow of information, promote coordination, and address any emerging challenges. **Enhance safety measures and hygiene standards:** In response to the COVID-19 pandemic, it is crucial to prioritize the implementation of comprehensive safety measures and hygiene standards. This can be supported by the study by Panich and Srithongphim (2021) that highlights the importance of providing safe and secure experiences for tourists. Regular sanitization, social distancing protocols, and adherence to health guidelines should be incorporated into the homestay operations to build trust and confidence among visitors.

Implementing these guidelines for supply chain management in homestay tourism in Phra Nakorn Si Ayutthaya Province can contribute to the development of the destination's tourism industry in the post-COVID-19 era. These recommendations are supported by relevant literature, including the studies by Panich and Srithongphim (2021) and Sangthong et al. (2021) which provide valuable insights into effective strategies and sustainable approaches for managing the tourism supply chain successfully.

Contributions

According to the result and discussion, the potential strategies that homestay businesses in Phra Nakhon Si Ayutthaya could implement to sustain tourism and their supply chain operations after the COVID-19 pandemic are as following:

Enhance Guest Safety and Well-being Measures

To fortify the homestay industry's resilience and foster guest confidence in the wake of the COVID-19 pandemic, a comprehensive strategy centred on rigorous hygiene protocols and proactive well-being initiatives must be implemented. This multifaceted approach encompasses the meticulous sanitization of all homestay facilities, adhering to stringent cleanliness standards that prioritize the health and safety of guests and staff alike. Moreover, the provision of personal protective equipment (PPE) to both guests and employees is imperative, acting as a vital safeguard against potential transmission risks. Complementing these hygiene measures, clear and well-defined guidelines for social distancing and capacity limits must be established, ensuring that homestay operations align with recommended best practices for mitigating the spread of infectious diseases. Furthermore, fostering collaborative partnerships with local healthcare facilities and relevant authorities is crucial, as these alliances facilitate robust emergency response planning and enable swift, coordinated action in the event of potential health-related incidents. To minimize physical interactions and reduce the risk of viral transmission, the adoption of contactless check-in/check-out processes and digital payment solutions is highly recommended. By embracing technological innovations, homestay operators can streamline guest experiences while prioritizing safety, thereby fostering a sense of confidence and trust among patrons. Through the implementation of these comprehensive safety and well-being measures,

the homestay industry can effectively address the heightened concerns and expectations of guests in the post-pandemic era, positioning itself as a bastion of responsible tourism and a proactive steward of public health.

Personalize Hospitality and Adapt Tour Programs

In the aftermath of the COVID-19 pandemic, the homestay industry must embrace a guest-centric approach that prioritizes personalization, adaptability, and transparency. This strategic imperative commences with the meticulous gathering of comprehensive information pertaining to guests' preferences, interests, and specific concerns related to the pandemic. By developing a nuanced understanding of individual needs and expectations, homestay operators can curate tailored experiences that resonate with each guest's unique aspirations. Recognizing the heightened awareness and apprehensions surrounding crowded spaces, homestay operators must curate personalized tour programs that prioritize outdoor activities, small group sizes, and minimized crowding. This strategic shift not only addresses guests' safety concerns but also enhances the overall experience by fostering a sense of exclusivity and intimacy within the natural surroundings. Furthermore, to cater to the evolving preferences for contactless activities, the homestay industry must innovate by offering virtual tours, online cultural experiences, and interactive workshops. These digital offerings provide guests with the opportunity to immerse themselves in the local heritage and traditions while adhering to social distancing guidelines, thereby ensuring a seamless integration of safety and cultural enrichment. Emphasizing these personalized offerings is the imperative of transparent communication. By providing detailed information about the comprehensive safety measures and COVID-19 protocols implemented by homestay operators, guests can make informed decisions and develop a heightened sense of trust and confidence in the industry's commitment to their well-being. Through this multifaceted strategy of personalization, adaptability, and transparency, the homestay industry can effectively navigate the challenges posed by the post-pandemic landscape, positioning itself as a vanguard of responsible tourism and a purveyor of authentic, tailored experiences that prioritize guest safety and satisfaction.

Foster Sustainable Practices and Environmental Stewardship

In the pursuit of holistic sustainability, the homestay industry must embrace a comprehensive strategy that integrates environmental stewardship into the core of its operations. This strategic imperative commences with the implementation of robust waste management strategies, including the adoption of composting and recycling programs. By diverting organic waste from landfills and promoting the responsible disposal of recyclable materials, homestay operators can significantly reduce their environmental footprint and contribute to the preservation of local ecosystems. Complementing these waste management initiatives, the promotion of eco-friendly transportation options is paramount. Homestay operators should actively encourage guests to explore the local area on foot or by bicycle, thereby minimizing the carbon emissions associated with traditional modes of transportation. This strategic approach not only mitigates environmental impacts but also fosters a deeper connection between guests and the natural surroundings, enhancing their overall experience. Underpinning these operational strategies is the imperative of education and awareness. Homestay operators must proactively educate both guests and staff about environmental conservation efforts and responsible tourism practices. By fostering a shared understanding of the importance of sustainability, the industry can cultivate a culture of environmental consciousness that permeates every aspect of its operations. To amplify the impact of these initiatives, strategic collaborations with local environmental organizations and sustainability-focused initiatives are crucial. These partnerships enable the homestay industry to leverage collective expertise, resources, and advocacy efforts, contributing to broader environmental conservation goals and positioning itself as a catalyst for positive change. Through the implementation of this multifaceted strategy, the homestay industry can transcend its role as a mere purveyor of hospitality services and emerge as a champion of environmental stewardship. By integrating sustainable practices into every aspect of its operations, the industry can not only mitigate its environmental footprint but also inspire guests to adopt more eco-friendly lifestyles, ultimately contributing to the global efforts towards a more sustainable future.

By implementing these strategies, homestay businesses in Phra Nakhon Si Ayutthaya can adapt to the post-COVID-19 landscape, enhance guest experiences, optimize supply chain operations, and contribute to the sustainable development of the local community and tourism industry.

Conflict of Interest

The authors declare that there is no conflict of interest.

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