



Journey to Efficiency: The Confluence of Tourism and Supply Chain Agility

Sobia Jamilⁱ, Sherbaz Khanⁱⁱ, Anam Qamarⁱ

i) *Jinnah University for Women, Karachi, Pakistan.*

ii) *Faculty of Supply Chain and Logistics, Institute of Business Management (IoBM), Karachi, Pakistan*

ARTICLE INFO

ABSTRACT

Keywords:

*Sustainable Tourism
Supply Chain
Performance,
Tourism SC
Resilience, Carrying
Capacity, Tourism
Supply Chain Agility,
Tourism Supply
Chain Agility*

The adaptability and efficiency of the tourist supply chain, which can have an effect on the sustainability of tourism businesses in the long run, are the focus of this research. In order to understand how the tourist supply chain might become more adaptable and efficient via the use of information technology, the researchers relied on resource dependence theory (RDT). Using a survey-based questionnaire, this study used a deductive method. Participants in the study are tourists. This study takes a fresh look at the dynamics of the tourist supply chain by using a deductive technique to collect data from visitors using a survey-based questionnaire. Using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method, this evaluation delves deeply into the ways in which the use of information technology (IT) in the tourist industry impacts the agility of the supply chain, which in turn impacts the overall performance and resilience of the many businesses operating in this sector. Findings highlight the critical role of the tourist sector in stimulating economic expansion, increasing tax income, establishing new job possibilities, and releasing a cascade of other social and economic advantages. The research underscores the paramount importance of the tourism industry in fostering economic growth, generating revenue, creating employment opportunities, and unlocking numerous other socio-economic benefits. Furthermore, study findings stated that Sustainable Tourism Supply Chain Performance is enhanced by supply chain agility, carrying capacity, and Tourism Supply Chain Agility. Tourism IT Adoption has the potential to mediate the relationship between sustainable tourism supply chain performance and carrying capacity. The findings of this research not only contribute to the academic discourse on supply chain management and tourism but also offer pragmatic implications for stakeholders, policymakers, and practitioners in the tourism industry, advocating for a strategic alignment between IT adoption and supply chain coordination to foster sustainability and efficiency.

Corresponding Author: Anam Qamar

Email: anam.qamar@ymail.com

Received: 7TH November 2023

Received in revised form: 14th December 2023

Accepted: 2nd April 2024

The material presented by the authors does not necessarily represent the viewpoint of the editor(s) and the management of the Khadim Ali Shah Bukhari Institute of Technology (KASBIT) as well as the authors' institute © KBJ is published by the Khadim Ali Shah Bukhari Institute of Technology (KASBIT) 84-B, S.M.C.H.S, off Sharah-e-Faisal, Karachi- 74400, Pakistan



1. Introduction

Due to the complexity of managing various entities within a service supply chain, researchers and practitioners are becoming more interested in tourism supply chains (SC) (Nabil et al., 2023). Tourism plays a crucial role in the global economy and has a significant impact on various industries, including hospitality, transportation, retail, and entertainment. The importance of tourism lies in the following aspects such as Economic Growth in a way that Tourism generates revenue, creates jobs, and stimulates economic growth in both developed and developing countries (Crăciun et al., 2022). It serves as a source of foreign exchange earnings, contributes to the GDP, and supports local businesses and communities. It helps to tourism industry in increasing labor-intensive and provides employment opportunities to diverse groups of people, including individuals with different skill sets and educational backgrounds. It allows travelers to experience diverse cultures, traditions, cuisines, and languages, fostering global harmony and appreciation of diversity (Muhammad & Adilbekova, 2023). It conserves the environment by Sustainable tourism practices promote environmental conservation and protection. By encouraging responsible travel and supporting eco-friendly initiatives, the industry can help preserve natural resources, protect ecosystems, and mitigate the negative effect of tourism on the environment. Sustainable tourism SC performance (STSCP) promote eco-friendly initiatives and environments safety. Two main factors contributing to this are the excellent range of services supplied and the high level of customization available.

Gruchmann et al. (2022) explained that Sustainable Tourism Supply Chain Performance (STSCP) involves different groups and activities that provide tourism products and services, like tour operators, hotels, transport services, destination management organizations, attractions, and more. STSCP practices focus on reducing waste and emissions, saving resources and energy, improving the well-being of local communities, ensuring fair trade and labor conditions, and preserving cultural diversity and heritage, as noted by Balouei Jamkhaneh et al. (2023). Sustainability is crucial in tourism due to its significant impact on the environment, society, and economy of tourist destinations. Negative effects of tourism can include over-tourism, loss of cultural identity, pollution, exploitation of wildlife, destruction of monuments, and dependency on tourism. Sustainable tourism seeks to balance the needs of tourists, the industry, the environment, and local communities. It follows the principles of people, planet, and profit, respecting the social and cultural authenticity and well-being of local communities, conserving natural resources and biodiversity, and ensuring fair and viable economic operations for everyone involved. Sustainable tourism is a responsibility not just of the industry, but also of tourists themselves. Mandal and Dubey (2020), mention that Tourism Supply Chain Agility (TSCA) is about quickly responding to customers' changing needs with the right services, while Tourism Resilience (TRES) focuses on restoring operations after disruptions. Any unexpected event negatively impacting supply chain operations is considered a disruption, as Chowdhury et al. (2023) pointed out. Information technology could play a key role here, making it important to thoroughly investigate its adoption in the travel industry. While previous studies have highlighted IT's importance in tourism, Suleiman (2023) suggests that major tourism organizations might adopt IT in different ways.

Here are some of the current problems faced by organizations in these areas, many tourist destinations experience seasonal variations in demand, resulting in challenges for businesses in managing workforce, inventory, and capacity utilization (Balouei Jamkhaneh et al., 2023). Sudden fluctuations in demand, such as during holidays or unexpected events, can also pose challenges in meeting customer expectations. Such dynamic capacities of TSCA and TRES may also result from tourism SC firms adopting a proper risk management mentality. The significance of tourist IT adoption (TITA) remains uncertain, according to many research. According to (Chowdhury et al.,



2023), there is a pressing need for theoretical and empirical studies to address the question of how to sustain the performance of tourist supply chains (SCs) at a period of fierce competition. Because of this, there has to be a lot of theoretical and empirical work on the topic of how to keep the performance of the tourist supply chain (SC) high in this age of fierce competition. Research on what makes a difference to sustainable tourism SC performance (STSCP) is lacking. Prior studies aimed at identifying what makes tourist SCs resilient and agile (TRES and TSCA, respectively) (Mandal & Dubey, 2020). We still don't know how these characteristics interact with each other or how important they are for the long-term success of tourist SC. According to Niaz and Nwagwu (2023), seasonal variations in demand as a challenge but do not provide specific strategies for how businesses can effectively manage these fluctuations. It is still unclear how these factors relate to one another and how crucial they are to maintaining the sustainability of tourism SC performance. In supply chain (SC) literature, a risk is commonly characterized as the probability of experiencing losses (Balouei Jamkhaneh et al., 2023). Organizations must adapt quickly to changing situations, including travel restrictions, safety protocols, and customer concerns. While frequently changing tourists' preferences and behavior are constantly evolving. Insufficient infrastructure can be a major problem which includes transportation networks, accommodation facilities, and tourist attractions, can hinder tourism development and impact organizations' ability to provide quality services (Núñez-Ríos et al., 2022). This research intends to know the extent to which tourism supply chain (SC) firms are driven to employ firm-level resources and competencies efficiently in order to advance SC-extensive competencies to sustain risk management. According to objective research question are:

RQ1: Does tourism supply chain agility affect tourism supply chain resilience and tourism SC performance?

RQ2: Does tourism IT adoption and coordinating capacity contribute toward the growth of tourism supply chain agility and resilience?

RQ3: Do hotels and tour businesses have different approaches to risk management and IT adoption when it comes to developing resilience and agility?

This study makes several significant contributions to the disciplines of tourism supply chain management and sustainable tourism. The study tackles the critical issue of seasonal variations in demand, which pose challenges in workforce management, inventory control, and capacity utilization in tourist destinations. Second, by exploring strategies to manage these fluctuations, the study fills a gap identified by Niaz and Nwagwu (2023) regarding the lack of specific strategies for businesses to handle these changes effectively. The study explores the relatively unexplored issue of how important it is to implement tourism IT in order to preserve supply chain performance in a highly competitive market by Chowdhury et al. (2023). Much theoretical and empirical research has gone into this, expanding our understanding of how TITA influences the efficiency of the tourist supply chain. Finally, our study deepens our understanding of how to effectively manage tourist supply chains in light of changing customer demands, fast technological advancements, and the need for environmentally responsible business practices. It offers new ways of looking at these issues, which boosts the efficiency and success of tourist-related companies in the long run

2. Literature review

Theoretical Exposition

The Resource Dependence Theory (RDT), developed in the 1970s by Pfeffer and Salancik, states that the degree to which an organization relies on external resources greatly affects



its actions (Pfeffer & Salancik, 2015). This concept could be useful within the study's framework, which investigates the effects of IT and coordination on the performance and adaptability of the tourism supply chain. Businesses should try to rely less on critical resources, according to RDT. Your study may look at how tourism information technology helps businesses use internal data management and analytics more effectively, which in turn helps them rely less on external sources of information (Mariani et al., 2021). Coordination within the tourism supply chain is another aspect of managing interdependencies, a core concept in RDT. Cangussu et al. (2023) suggests that tourism enterprises may effectively manage their dependency on suppliers, distributors, and customers through efficient coordination, which might be the subject of future study (Cangussu et al., 2023).

Sustainable Tourism Supply Chain Performance (STSCP)

The idea behind sustainable tourism is to travel to a destination with the intention of having only positive effects on the environment, community, and economy. Increased benefits and decreased negative effects of tourism on destinations are the goals of sustainable tourism. One way to accomplish this is to safeguard wildlife, natural resources, and habitats while creating and overseeing tourism-related activities. Primary transit to the destination, local transportation, lodging, entertainment, leisure, food, and shopping are all possible aspects of tourism. It may have to do with business travel, pleasure travel, or what's known as VFR travel (seeing friends and relatives) (Melya, 2022). The positive impacts of tourism industry are on social and cultural & it helps to promote environmental benefits in a way to Strengthened communities due to more money and resources, it helps to improved infrastructure including buildings and transport systems, preservation of local cultures, Creation of natural parks and Areas of Outstanding Natural Beauty, Improved water quality, Increased funding for nature conservation and protection (Horswill et al., 2020).

Sustainable Tourism SC Performance (STSCP) and Tourism SC Resilience (TSCRS)

The performance of sustainable tourism has a significant influence on the resilience of tourist supply chains. This is due to its ability to enhance sustainability in the aftermath of ecological or environmental disasters, providing an alternative approach to sustainable development and perhaps aiding in the recovery from stress produced by tourism activities. Without resilience, a destination would never be able to maintain its sustainability efforts. The notion of resilience is a fundamental component that enhances individuals' strength and enhances their preparedness to effectively address and recuperate from various disruptive events, encompassing, however not only, external shocks such as a pandemic (Auzan, 2020). Two interconnected ideas that can support the long-term prosperity of tourist attractions and enterprises are tourism resilience and sustainable tourism performance. In order to ensure the long-term viability of the tourism sector, it is important for businesses and attractions to build resilience so they can cut down on risks, adapt to new circumstances, and keep running (Coombs & Bierly III, 2006).

Sustainable tourism performance, on the other side, may contribute to the tourism industry's resilience by minimizing negative impacts on the environment, society, and the economy while simultaneously maximizing positive ones. Sustainable tourism initiatives may help make tourist destinations and businesses more resilient to shocks and disruptions by promoting resource efficiency, increasing community engagement and empowerment, and decreasing dependence on external resources. the sustainability of the tourism industry and its ability to withstand shocks are two sides of the same coin that can help ensure the industry's continued success in the future (Williams et al., 2020). Stakeholders in the tourism industry may make systems that benefit host communities, tourists, and the environment more resilient and adaptable to new conditions by fostering sustainability and bolstering resilience.



H₁: There is a positive relationship between Sustainable Tourism SC Performance (STSCP) And Tourism SC Resilience (TSCRS).

Tourism Supply Chain (SC) resilience and Carrying Capacity (CC)

The term "tourism SC resilience" refers to the amount of support that the tourism industry can provide to the environment in order to protect it and lessen its impact, while also meeting the needs of visitors and benefiting the local economy. "Carrying capacity and resilience" go hand in hand because an area requires safeguards in place to stop certain effects from leading to a collapse of the system. Because regions are dynamic entities that change over time, carrying capacity is a variable that depends on a variety of influencing variables, including consumer behavior and temperature. The ecological buffering capacity of a place is strongly associated with its socioeconomic buffering capacity, which evaluates the resilience of social and institutional institutions (Kantabutra & Ketprapakorn, 2021). When combined, these capacities give an indication of a region's overall resilience; the higher the number, the larger the region's carrying capacity, or its ability to withstand additional effects from human activity. TRES's primary goal is to resume operations in the case of an interruption (Castro et al., 2021).

H₂: The carrying capacity is directly impacts on Tourism Supply Chain (SC) resilience. Coordinating capacity (CC) and Tourism SC Agility (TSCA)

Two important concepts in the tourism industry are tourism agility and coordination capacity, which relate to the capability of tourist sites and businesses to respond to new circumstances while maintaining high-quality visitor experiences. What makes a tourist destination or business agile is its ability to quickly and effectively adapt to changing market conditions, emerging trends, and unanticipated events (Moi & Cabiddu, 2021). This is the ability to stay ahead of the competition and cater to the needs and preferences of visitors by coming up with new ideas and adjusting existing plans and procedures as circumstances change. The capacity of visitors to work together effectively to achieve common goals is characterized by their coordination capabilities. The ability to work together, communicate effectively, and coordinate one's efforts to achieve a common goal is essential. The capacity to coordinate is fundamental for achieving agility in the tourist industry (Stylos et al., 2021). Businesses and destinations may better respond to changing customer needs and emerging trends when they form strong alliances and cooperative networks with one another. This allows them to pool resources, expertise, and experience. Therefore, tourism agility may help increase coordinating capacity by encouraging a culture that is inventive, responsive, and adaptable, which in turn promotes collaboration amongst stakeholders in the tourism industry. Visitor hotspots and businesses may enhance their ability to work together and achieve common objectives by constantly inventing and adjusting to new circumstances. Hence, the success of the tourism industry in the long run depends on the association between the capacity to coordinate and the agility of tourists. Stakeholders in the tourism industry may develop systems that are more flexible and capable of delivering excellent travel experiences while also enhancing the well-being of both host communities and tourists by developing their capacity for coordination and agility (Ku, 2022).

H₃: The Tourism SC Agility (TSCA) has a positive impact on CC Coordinating capacity (CC).



Tourism SC Agility (TSCA) and Tourism IT adoption (TITA)

Traveling to and remaining in locations outside of one's normal surroundings for pleasure, business, or other reasons for a maximum of one year is what makes tourism and SC agility related. Since information technology plays a unique role in the tourist industry, its adoption is required. Transportation, lodging, and attraction sectors may all benefit from the application of information technology. Utilizing these technology helps to identify and meet the constantly evolving needs of the tourist industry (Balouei Jamkhaneh et al., 2023). Copyright may apply to certain content. According to the report, TITA is the capacity of travel agencies to leverage their knowledge of information technology and tourism to create travel packages and services. When combined with information technology, this capability helps tourism-related SC companies create exceptionally well-planned travel packages. Businesses that can create and provide competitive, personalized packages are probable to earn market share and client loyalty as the services sector becomes more competitive (Hajar et al., 2020).

H4: There is a positive relationship between Tourism SC Agility (TSCA) and Tourism IT adoption (TITA).

Carrying Capacity (CC) and Sustainable tourism SC performance (STSCP):

Sustainable tourism performance and carrying capacity are closely related concepts that are both important for ensuring the long-term sustainability of tourism destinations and businesses. Sustainable tourism performance refers to the ability of tourism destinations and businesses to deliver high-quality tourism experiences while also minimizing negative impacts on the environment, local communities, and the economy (Ngoc et al., 2023). Sustainable tourism techniques that are both environmentally and socially conscientious can help host communities' economies thrive. Carrying capacity, in contrast, is the most number of visitors that a region can sustainably host without negatively impacting the ecosystem, adjacent communities, or the regional economy (Gambatese & Hallowell, 2011). Considerations such as the accessibility of natural resources, the quality of infrastructure, and the capacity of locals to handle and profit from tourism are all part of this. Finding a happy medium between carrying capacity and sustainable tourism performance is essential for tourist sites and companies to thrive in the long run. By doing so, we can ensure that the destination's visitor growth remains within its carrying capacity and implement ecologically responsible tourism practices, which in turn reduce negative affects on the local community and environment. players in the tourism industry may guarantee the long-term viability of the industry on all fronts by balancing sustainable tourism performance with carrying capacity (Chowdhury et al., 2023). Finally, in order to keep tourist sites and businesses afloat in the long run, two interconnected concepts that are vital are carrying capacity and sustainable tourism performance. Stakeholders in the tourism industry can work toward more sustainable systems that benefit locals and visitors alike by implementing sustainable tourism practices that find a happy medium between carrying capacity and sustainable tourism performance (Corcoles Munoz et al., 2023).

H5: Carrying Capacity (CC) and Sustainable Tourism SC performance (STSCP) has a positive impact.

Tourism SC Agility and Tourism SC Resilience (TSCRS)

Some of the characteristics shared by agility and resilience include the capacity to quickly and easily adapt strategies and operations, to monitor and anticipate one's surroundings,



and to speed up or slow down one's operations. Since these two concepts are similar, improving one may have a beneficial effect on the other (Gligor et al., 2019). Supply chains in the tourist industry may be more agile and resilient with better integration, supplier cooperation, trust, and internal coordination. This means that these factors can improve agility and resilience in the workplace when used strategically (Mate, 2022). According to Mandal and Saravanan (2019), the degree to which a tourist supply chain is nimble or resilient is highly dependent on its strategic direction and planning.

H₆: Tourism SC Agility and Tourism SC Resilience (TSCRS) has a positive impact.

Tourism SC Resilience (TSCRS) and Sustainable Tourism Supply Chain Performance (STSCP)

In the relationship between TSCRS and Sustainable Tourism Supply Chain Performance, resilience plays a crucial role in promoting sustainability. The tourism business may benefit from TSCRS's modernization potential and retrieval components, which contribute to sustainable development. Because of their increased capacity to adapt and evolve in the face of hardship, resilient supply chains improve sustainability (Bai & Ran, 2022). The efficient administration and utilization of VRIN and non-VRIN resources leads to positive STSCP and significantly improves TSCRS. This suggests that resilience building depends on efficient resource management, which improves sustainable performance (Roy, Amar, & Mandal, 2016). Supply chain management gains competitiveness and enhances sustainability through the combination of resilience and sustainability. According to Zavala-Alcívar, Verdecho, and Alfaro-Saíz (2020), this integration points to a synergistic connection where resilience methods aid in the achievement of sustainable goals.

H₇: Tourism SC Resilience (TSCRS) and Sustainable Tourism Supply Chain Performance (STSCP) has a positive impact.

Theoretical Framework

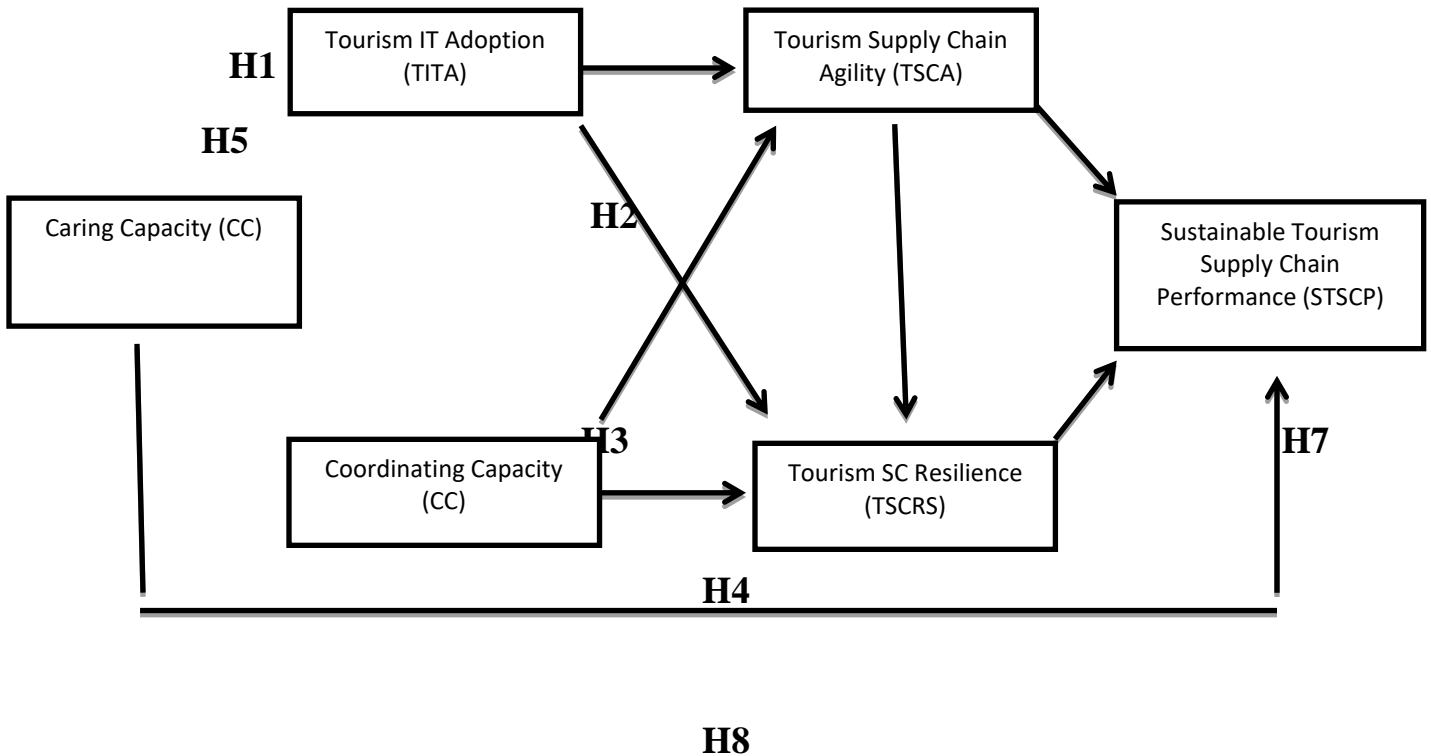


Figure 1: Theoretical Framework

3. Methodology

Research Approach

There are methods for finding such as inductive and deductive. A deductive approach builds assumptions on top of an existing hypothesis, tests it for accuracy, and modifies it in response to new information. It is possible to link the inductive technique with best analysis, which is the process of developing new models. Our study used a quantitative methodology based on the survey technique. In this case, the deductive method is used in our study to generate hypotheses that are then tested for confirmation by abusing preexisting theory.

Data Collection

Population refers to the complete group of people chosen for the research. The participants in this study were Pakistani tourist industry workers. The study aimed to gather information from important tourist organizations. This kind of approach makes it easier to gather information and data from the right people in order to examine it. We modified this questionnaire. In actuality, a Google form link was created and distributed to the Karachi tourist community and tourist agencies. The approach used to gather data from respondents—male or female—was a cross-sectional survey and respondent responses approx. 54%. The primary focus of this investigation was the Pakistani tourist company.



We used non-probability convenience sampling technique in our research. As a non-probability sampling technique, convenience sampling identifies units for the sample based on the simplicity with which it is for the researcher to access them. This might be because of the research's desire to be carried out, its immediate nearness, or its availability at a particular time. (Sekaran & Bougie, 2016). Emails and phone calls were used to formally contact respondents in an effort to boost the likelihood that they would respond. Online questionnaires have been proven to be the best option for gathering the necessary data, provided that suitable sampling techniques and related controls are applied. The research got about 150 out of 200 partially completed replies.

Research Instrument

This study employs online based questionnaire to collect the data. Check and Schutt (2012) define questionnaires as lists of questions distributed to a random sample of individuals. A questionnaire's objective might be to elicit views or facts (Fairclough & Thelwall, 2022). The questionnaire items were adopted from the prior available studies. To measure the construct 'Tourism IT Adaptation' the items were adopted from the sources (De Mattos and Laurindo, 2017), (Karahanna, Straub and Chervany, 1999), (Oliveira and Martins, 2010), and (McAfee, 2009). The sources for the items for 'Coordinating Capacity' and 'Caring Capacity' were taken from (Becken and Hughey, 2013), (Morgan and Fluker, 2003), (Ritchie and Brindley, 2007; Wagner and Bode, 2008). The items for measuring 'Tourism SC Agility and Tourism SC Resilience' were taken from Roy et al. (2016) and Mandal et al. (2016). Lastly to gauge the construct 'Sustainable Tourism Supply Chain Performance' the items were taken from (Mandal, 2018). All the items were measured using 5-point Likert scale.

Data analysis

To experimentally test the theoretical framework, the study adopts Partial Least Square Structural Equation Modelling. SEM is a highly effective method for investigating complex theoretical associations amid several variables. PLS-SEM is specifically useful when the user's structural model's goal is to envisage and explain the target outcomes, and it can produce reliable results even with small sample sizes (Hair et al., 2021; Hair & Alamer, 2022). Since the theoretical model in our work incorporates the assessment of multiple variables with the purpose of predicting the target outcomes, the application of PLS-SEM is advantageous

4. Results

Common Biased Method

One of the shortcomings of using survey based questionnaire is the presence of common method bias this problem arises when both the independent and dependent variables are recorded by the same response mechanism hence the properties of common method bias might be damaging to the validity of a research, to address this bias Variance Inflated Factor is being used to assess the collinearity issues if any. According to Kock (2015) if the values of VIF are greater than 3.3 then the model seems to be contaminated with collinearity issue in our case all the mentioned values are below the defined threshold.



Table 1: Common Bias Method

Constructs	VIF
Sustainable Tourism SC Performance (STSCP 1)	1.841
Caring Capacity (CC 1)	1.618
Caring Capacity (CC 2)	1.814
Tourism SC Agility (TSCA 1)	1.483
Tourism SC resilience (TRES 1)	1.727
Tourism IT Adoption (TITA 1)	1.813
Tourism IT Adoption (TITA 2)	2.074
Tourism IT Adoption (TITA 3)	1.290
Sustainable Tourism SC Performance (STSCP 2)	1.777
Tourism SC Agility (TSCA 3)	1.647
Tourism SC resilience (TRES 3)	1.857
Tourism SC Agility (TSCA 2)	1.570
Tourism SC resilience (TRES 2)	1.670
Coordinating Capacity (CC 1)	1.733
Coordinating Capacity (CC 2)	1.481
Coordinating Capacity (CC 3)	1.816
Caring Capacity (CC3)	1.521
Sustainable Tourism Supply Chain Performance (STSCP 3)	1.223

Variance inflation factor (VIF)

Table 1 summarized the values of VIF. VIF is conventional and perhaps the important one for analyzing common method bias. The VIF values of sustainable tourism supply chain performance STSCP 1, STSCP 2 and STSCP 3 are 1.841, 1.777 and 1.223. The VIF value of carrying capacity CC 1, CC 2 and CC 3 are 1.618, 1.814 and 1.521. The VIF values of tourism supply chain agility TSCA 1, TSCA 2, and TSCA 3, are 1.483, 1.570 and 1.647. The VIF values of tourism supply chain resilience TRES 1, TRES 2 and TRES 3 are 1.727, 1.670 and 1.857. The VIF values of TITA 1, TITA 2 and TITA 3, are 1.813, 2.074 and 1.290. The VIF values of coordinating capacity CC 1, CC 2 and CC 3 are 1.733, 1.481 and 1.816.



Table 2: Reliability & Validity

Construct Name	Items	Outer loadings	Cronbach's Alpha	CR	AVE
Caring Capacity	CC1	0.843	0.780	0.783	0.694
	CC2	0.850			
	CC 3	0.805			
Coordinating Capacity	CO.C1	0.855	0.784	0.784	0.699
	CO.C2	0.841			
	CO.C3	0.8110.784			
Sustainable Tourism SC Performance	STSCP1	0.856	0.733	0.733	0.653
	STSCP2	0.839			
	STSCP 3	0.7220.730			
Tourism IT Adoption	TITA1	0.841	0.761	0.761	0.666
	TITA2	0.892			
	TITA3	0.7040.744			
Tourism SC Agility	TSCA1	0.835	0.778	0.778	0.679
	TSCA2	0.790			
	TSCA3	0.8450.765			
Tourism SC Resilience	TRES 1	0.847	0.807	0.807	0.719
	TRES 2	0.847			
	TRES 3	0.8500.805			

Above Table 4 shows the results of the reliability and validity testing of the measurement scales.

Internal consistency

The current study has determined the internal consistency of the constructs through Cronbach’s values. Study have presented the results in Table 4 Cronbach’s alpha values were above the threshold of 0.70 set by (Gadermann et al., 2012): CC($\alpha= 0.780$), CO.C ($\alpha= 0.784$), STSCP ($\alpha= 0.730$),TITA ($\alpha=0.744$), TSCA ($\alpha=0.765$) and TRES ($\alpha=0.805$)

Convergent validity

Table 2 summarizes the result of composite reliability (CR) and average variance extracted (AVE). CR values were above the threshold of 0.7 (Hair et al., 2017): CC(CR = 0.783), CO.C(CR = 0.784), STSCP(CR =0.733), TITA(CR =0.761), TSCA (CR =0.778), TRES (CR = 0.807). The AVE values were also above the threshold of 0.50 (Chin, 2010): CC(AVE =0.694), CO.C(AVE =0.699), STSCP(AVE =0.653), TITA (AVE =0.666), TSCA(AVE = 0.679), TRES(AVE = 0.719). Factor Loadings were significant, and t-values were above the threshold value of 0.50 (Hair et al., 2017). The values of CR > 0.7 (Hair et al., 2017) and AVE > 0.5 (Chin, 2010) were above the threshold values and fulfilled the standard requirements for validity (Schuberth et al., 2018). Due to their cross-loading difference exceeding the suggested threshold of 0.1 as suggested by Gefen & Straub (2005), Table 2 shows that individual items of each item are loaded higher in their relevant construct as compared to other constructs. This further supports the discriminant validity of the data.



Discriminant Validity

We next apply the Fornell-Larcker criteria to evaluate the discriminant validity. As discriminant validity develops, it shows how distinct the construct is and how it captures the phenomena that no one else has noticed. According to Yusuf and Busalim (2018), the correlations between the constructs were not found to be larger than the square root of the variance retrieved between each pair of components. Table 6 indicates that the constructs are different and distinctive since the square root of AVE is greater than the correlation values

Table 3 : Heterotrait-monotrait ratio (HTMT)

	Caring Capacity	Coordinating Capacity	Sustainable Tourism SC Performance	Tourism IT Adoption	Tourism SC Agility	Tourism SC Performance
Caring Capacity	0.791					
Coordinating Capacity		0.771				
Sustainable Tourism SC Performance	0.616		0.771			
Tourism IT Adoption	0.543	1.014	0.849			
Tourism SC Agility	0.324	0.888	0.877	0.901		
Tourism SC Performance	0.765	0.750	0.651	0.891	0.764	0.72

Heterotrait-monotrait ratio (HTMT) is the latest criterion for evaluating and measuring the discriminate validity. As shown in Table 5 Heterotrait-monotrait ratio (HTMT) values of these construct was under the recommended values 0.9 (Henseler et al., 2015) which thereby verify that the discriminate validity is established. This content should not be copy pasted, students can use the format but write differently, the red threshold value will not change

Table 4: Discriminant Validity

	Caring Capacity	Coordinating Capacity	Sustainable Tourism SC Performance	Tourism IT Adoption	Tourism SC Agility	Tourism SC Performance
Caring Capacity	0.833					
Coordinating Capacity	0.737	0.836				
Sustainable Tourism SC Performance	0.693	0.581	0.808			
Tourism IT Adoption	0.755	0.775	0.625	0.816		
Tourism SC Agility	0.809	0.691	0.660	0.697	0.824	
Tourism SC resilience	0.729	0.599	0.748	0.682	0.620	0.848

Note: The square root of the VE is shown on the diagonal, the correlations between the constructs under shown under the diagonal.



Structural model

Using bootstrapping of 5,000 subsets, the study established a structural model. The outcomes of the hypotheses and the structural model are described in the sections that follow.

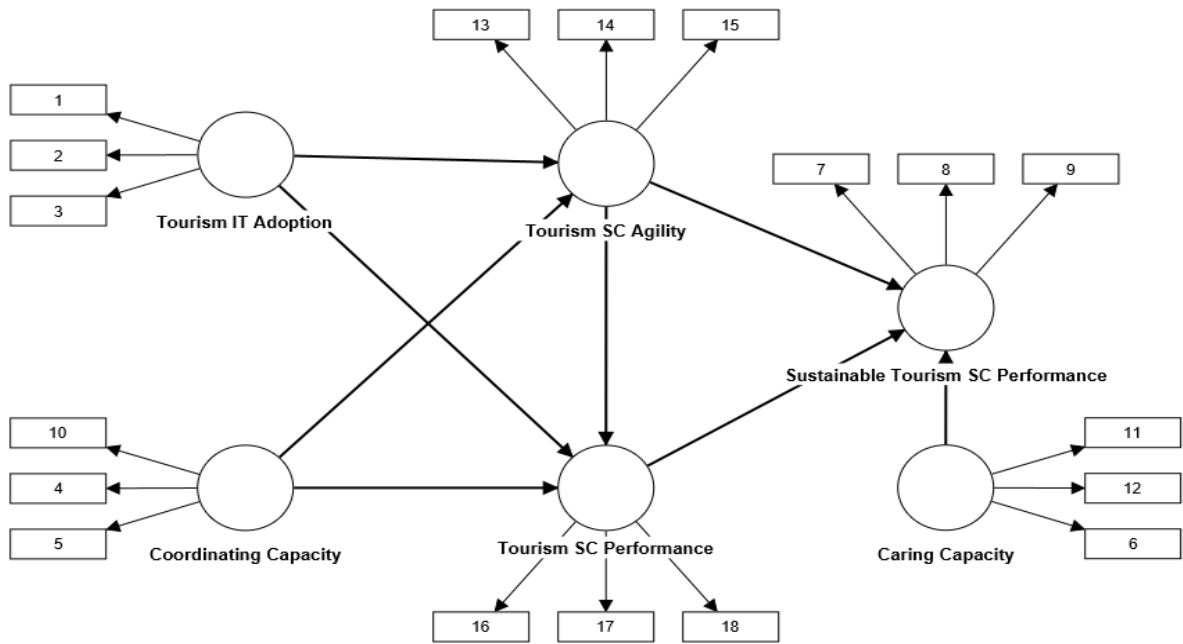


Figure 2: Structural Model

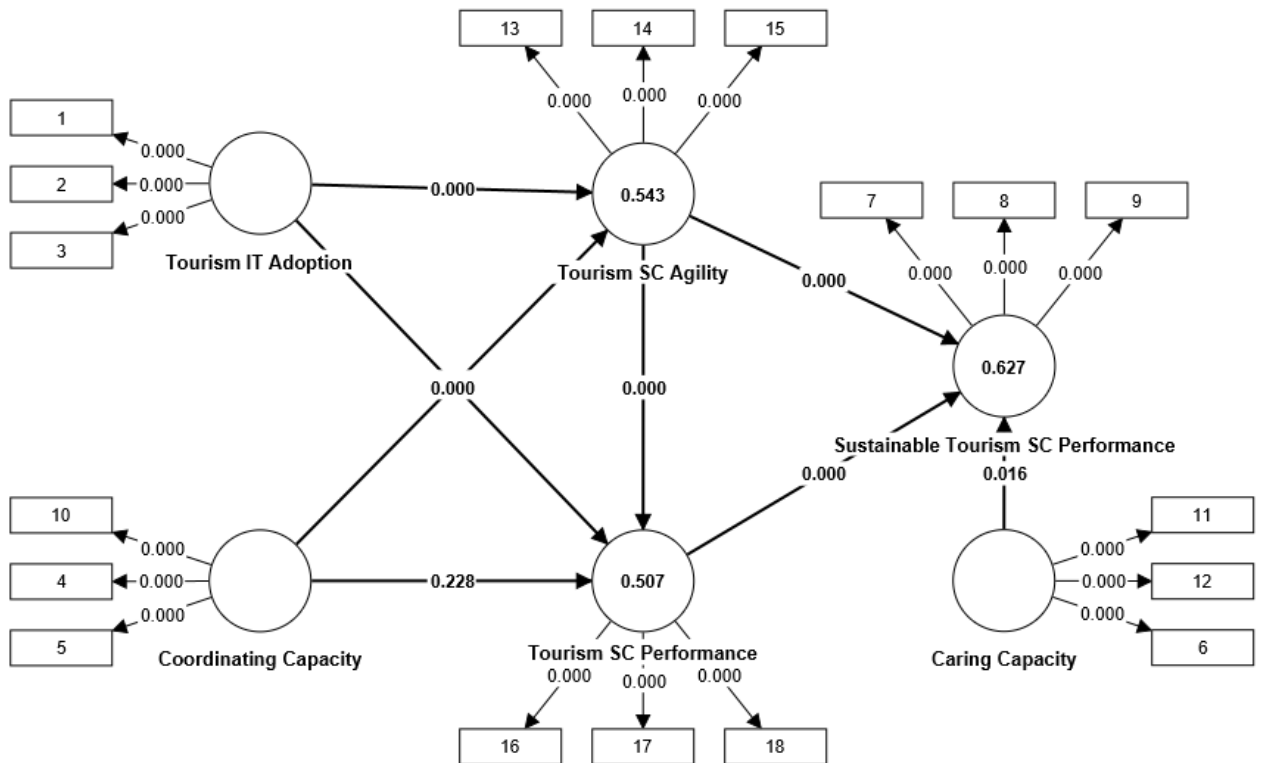


Figure 3: Measurement Model



Predictability of the model

Based on R^2 values, this study established the model's predictability. The addressed R^2 values are more than 0.10, implying that the model is adequately predictive.

Table 5: Predictively of the Model

	R-Square	R-Square Adjusted
Sustainable Tourism SC		
Performance	0.627	0.624
Tourism SC Agility	0.543	0.540
Tourism SC resilience	0.507	0.503

Hypothesis Results

Table 6 shows the hypotheses testing in which indicates that nine hypotheses out of twelve are found to be supportive. Caring Capacity -> Sustainable Tourism SC Performance (H1) has a significant determinant influence on destination brand **awareness** with t-statistics 2.401 (p=0.016). Coordinating Capacity -> Tourism SC Agility (H2) has a significant impact on visit intention with t-statistics 6.814 (p=0.000). Coordinating Capacity significantly mediates between Tourism SC Performance and with t-value 1.205 (p= 0.228). Similarly, Tourism IT Adoption use significantly influence on Tourism SC Agility with t-statistics 7.913 (p=0.000). Tourism IT Adoption also significantly impact on Tourism SC Performance with t-value 7.350 (p=0.000). Tourism SC Agility significantly plays a mediating role between Sustainable Tourism SC Performance with t-statistics 4.977 (p=0.000). Tourism SC Agility has a significant determinant influence on Tourism SC Performance with t- statistics 4.278 (p=0.000). Tourism SC Performance has significantly mediated between Sustainable Tourism SC Performance with t-value 11.152 (p=0.000).

Table 6: Hypothesis Testing

Hypothesis	Structural relation	Std. deviation (STDEV)	T-Values	P-Values	Beta
H1	Caring Capacity -> Sustainable Tourism SC Performance	0.057	2.401	0.016	0.002
H2	Coordinating Capacity -> Tourism SC Agility	0.055	6.814	0.000	-0.001
H3	Coordinating Capacity -> Tourism SC Performance	0.066	1.205	0.228	0.001
H4	Tourism IT Adoption -> Tourism SC Agility	0.051	7.913	0.000	0.003
H5	Tourism IT Adoption -> Tourism SC Performance	0.060	7.350	0.000	-0.001



H6	Tourism SC Agility - >Sustainable Tourism SC Performance	0.048	4.977	0.000	0.000
H7	Tourism SC Agility - >Tourism SC Performance	0.060	4.278	0.000	0.000
H8	Tourism SC resilience - >Sustainable Tourism SC Performance	0.045	11.152	0.000	-0.001

Discussion

Current study has offered and tested seven hypotheses, and with the exception of three, the results support each one. The findings and their significance in relation to earlier research have been examined in the section that follows.

Hypotheses (H1) state that, the current study results show that Sustainable tourism SC performance (STSCP) significantly positively influence on tourism SC resilience (TRES). with the effect size ($\beta=0.002$)². The current results have been validated with the results of previous studies. The goal of resilience in SCs is to get critical SC functions back to normal or to a better condition (. Resilience is a key dynamic skill for the service sector since it enables SCs to continue operating through restoration efforts (Mandal, 2019). By offering their customers continuous services despite manageable interruptions, service sectors can obtain a competitive edge. In the service industry, maintaining a steady stream of services can be essential to maintaining a competitive edge. Therefore, resilience is a crucial dynamic quality that enables tourist service companies to continue operating in the face of uncertainty (Mandal & Dubey, 2020). Dedeoğlu et al. (2020), claim that tourist content on social media platforms significantly and favorably affects destination brand awareness. Through the evaluations and remarks posted on these platforms, tourists may raise awareness of their destination's brand.

Hypotheses (H2) Declare that the findings of the present study demonstrate a substantial beneficial influence of Coordinating Capacity (CC) on Tourism SC Agility (TSCA) with an effect size of ($\beta=0.001$)². The latest findings are consistent with the findings of earlier research. The term "tourism agility" describes the capacity of tourist locations and enterprises to react swiftly and efficiently to unforeseen circumstances, evolving trends, and shifting market conditions. This is the capacity to innovate, adapt, and modify plans and procedures in reaction to shifting conditions in order to maintain competitiveness and satisfy visitor requirements and preferences. In order to attain higher efficiency and effectiveness, coordinating capability involves the capacity for cooperation, communication, and effort coordination.(Ku, 2022).

Hypotheses (H3) Declare that the current study's findings demonstrate that, with an impact size of ($\beta=0.001$)², Coordinating capacity (CC) has a substantial beneficial influence on sustainable tourism SC performance (STSCP). The current results have been validated with the results of previous studies. the coordinating capability is a prominent firm level source considered for the tourism supply chain performance, this suggest that tour companies can be effective in term of their resilience capabilities and coordinating capabilities because it helps them to being a competitive and proactive(Farrukh et al., 2020).



Hypotheses (H4) state that, the current study results show that Tourism IT Adoption (TITA) significantly positively influence on Tourism Sc Agility (TSCA) with the effect size ($\beta = 0.003$)². The latest findings are consistent with the findings of earlier research. Since information technology plays a unique role in the tourist industry, its adoption is required. Transportation, lodging, and attraction sectors may all benefit from the application of information technology. Utilizing these technology helps to identify and meet the constantly evolving needs of the tourist industry (Crăciun et al., 2022). Additionally, the TITA refers to the capacity of travel agencies to leverage their knowledge of information technology and tourism to provide travel packages and services.

Hypotheses (H5) state that, the current study results show that Tourism IT Adoption (TITA) significantly positively influence on Sustainable Tourism Sc Performance (TSCP) with the effect size ($\beta = -0.001$)². to adopt the latest IT technology for routine executions and strategic planning can helps to implement an effective coordination with one another which improves the tourism SC performance, as the IT resources are important for sustenance of operations (Martínez-Peláez et al., 2023).

Hypotheses (H6) state that, the current study results show that Tourism Supply Chain Agility (TSCA) significantly positively influence on Sustainable Tourism SC Performance (STSCP) with the effect size ($\beta = 0.000$)². The current results have been validated with the results of previous studies. Due of the existence of several entities, tourism SCs are complex. Thus, it becomes a difficult task to achieve coordination in such complicated service SCs. But in such intensified competition, teamwork and cooperation are essential to success and longevity. According to Stylos et al. (2021), agility was first applied to the manufacture of SCs and then later expanded to include SC services (Lowry & Wilson, 2016; Menor, Roth, & Mason, 2001). However, because the service industry requires a higher level of customization than manufacturing does, these service SCs argue that agility is a stronger competitive weapon in the former (Chan, Ngai, & Moon, 2017; Menor et al., 2001). In this sense, we contend that the development of total responsiveness to consumer requirements should be the primary goal of tourist SCs. According to recent market trends, client tastes appear to be more dynamic (Raman & Bharadwaj, 2017; Sudharshan & Mild, 2017).

Hypotheses (H7) state that, the current study results show that Tourism Supply Chain Resilience (TRES) significantly positively influence on Sustainable Tourism SC Performance (STSCP) with the effect size ($\beta = -0.000$)². The current results have been validated with the results of previous studies. A tourist SC performance that is sustainable Since resilience may help restore sustainability following an ecological or environmental disaster and provide a viable alternative to sustainable development in the event of a tourist-induced stress, it is crucial for the growth of the tourism industry (Ku, 2022). A destination could never continue its sustainability initiatives without resilience.

Conclusion

In conclusion, this study has identified significant gaps in understanding the complexities and interdependencies within the tourism supply chain (TSC), particularly in the context of seasonal demand variations, technology adoption, and sustainable performance. Despite previous research efforts, there remains a lack of clarity on how various factors like tourism supply chain agility (TSCA), resilience (TRES), and information technology adoption (TITA) interact and contribute to the sustainability of TSC performance. The concept of Coordinating Capacity (CC) emerges as a crucial element in enabling tourism supply chain businesses to effectively employ their resources



and skills for comprehensive risk management, which is vital given the dynamic nature of tourism demand and preferences. Moreover, this study highlights the need for extensive empirical research and theoretical development to understand and improve tourist supply chain performance in a highly competitive environment. The challenge of managing seasonal demand variations remains inadequately addressed in the literature, with a particular need for strategies that businesses can employ to effectively manage these fluctuations. Furthermore, the importance of infrastructure, encompassing transportation, accommodation, and attractions, is underscored as a key determinant of service quality and overall tourism development.

Practical Implications

The study has ramifications for practitioners and theoretical advancement. In order to improve the dynamic capacities of tourism supply chain agility (TSCA) and Tourism SC Resilience TRES in Pakistan tourist companies, the study proposed that company level resources such as TITA and caring capacity (CC) are necessary. Nonetheless, since the measurement model was non-invariant for the two groups, the invariance analysis demonstrated that the importance of these resources varied for businesses in the hotel and tour companies segments. The contribution of Tourism IT Adoption (TITA) and coordinating capability to the development of tourism supply chain agility (TSCA) varies throughout hotels and tour operators in Pakistan. Accordingly, the degree to which business personnel value its resources determine how effective they are at producing dynamic capacities for emerging industry in Pakistan. As a result, it is important to remember that the significance of firm-level resources determines how they are used and how successful they are in developing dynamic capability for Pakistan tourist companies. Thus, this serves as a foundation for future theoretical work on resource perception and the development of dynamic capability in the tourist industry, particularly with regard to agility (Blome, Schoenherr, & Rexhausen, 2013; Dubey et al., 2018) and resilience (Mandal & Saravanan, 2019).

The study has a number of ramifications for managers of tourism in Pakistan. It first advises tourist SC managers to concentrate on building their infrastructure, which can support the development of resilience and agility. Our research indicates that the cultivation of resilience and agility is essential to guaranteeing sustainable tourism supply chain performance (STSCP). IT for both tactical and strategic planning. Adoptions and implementations of this kind would facilitate the efficient coordination of SC enterprises in Pakistan with one another. According to Mandal et al. (2016) and Mandal et al. (2017), improved responsiveness to Pakistani customers' service demands depends on this kind of cooperation. Although it doesn't directly affect tour organizations, IT adoption is nevertheless beneficial. Therefore, it's possible that tour businesses may not view IT adoption as being important enough to guarantee the growth of tourism supply chain agility (TSCA) in Pakistan. tourism it adoption (TITA), however, aids in the growth of tourist SCs' and hotels' agility. As a result, managers need to concentrate on modernizing their IT infrastructure in available resources in country in addition to motivating and educating staff members to use IT for both daily tasks and long-term planning. Given the importance of IT resources to the continued functioning of tour firms, they should also concentrate on allocating them effectively.

According to the findings, hotels and tourist SCs should focus on training staff members in risk management techniques. To maintain operations in the face of disruption and uncertainty, such an attitude is required (Mandal & Saravanan, 2019). Travel agencies might not think that this kind of attitude is necessary for building resilience, but they still need to work with their major partners—hotels, for instance—to jointly create risk management plans that guarantee long-term success.



Because service supply chains are highly complicated (Huang, 2018), cooperation is constantly more important for building capabilities. Therefore, the report advises managers to concentrate on working together inside the company to create business contingency plans and risk management techniques. Moreover, the growth of SC skills for Pakistan's company requires this kind of cooperation across enterprises (Cao & Zhang, 2011; Mandal et al., 2017). Focal companies can have greater knowledge for business contingency planning if other tourist entities actively participate. This would further assist businesses in incorporating flexibility into their strategic and normal operations, improving their ability to respond to disruptions and client requirements. Additionally, prompt service delivery and response generate goodwill among customers. As a result, these advancements support the establishment of enduring relationships and loyalty.

Limitations and Future Direction

Similar to every other research, this one has some limits. Its main goal was to get subjective feedback from many important tourist industry players. Research does advocate for the adoption of a multiple entity approach; however, the present study does not include input from several individuals inside one company. Future research should thus concentrate on incorporating this missing viewpoint. The research has been dependent on perceptual answers. A case study method including two or three SCs can shed more light on certain problems that the tourist industry faces. Future research should thus use a case study methodology. Based on group sizes meeting the minimal criteria of response variables, the study evaluated the moderating roles of TITA and CC. Despite this, there are a few restrictions that need to be taken into account in order to help guide future studies. First, the tourist industry's attitude is changing from one of exploitation to one of constructiveness, which might have an impact on the industry's ability to survive. Second, a longitudinal investigation could be more suited to find additional significant and emerging resilience-promoting components, as the model architecture for this study appears to be dynamic and unexpected. Furthermore, a comparison methodology and the spillover effect may yield more relevant findings about sustainable tourism. Furthermore, further study should focus on how sustainable tourism may successfully support post-pandemic sustainable development goals.



References

- Auzan, A. (2020). The economy under the pandemic and afterwards.
- Balouei Jamkhaneh, H., Shahin, R., & Shahin, A. (2023). Assessing sustainable tourism development through service supply chain process maturity and service quality model. *International Journal of Productivity and Performance Management*, 72(7), 2046-2068.
- Cangussu, M., Wandermurem, L., Chester, D., & Pessoa, U. (2023). Decision-making processes in organizational arrangements: An analysis in the light of population ecology and resource dependence. Seven Editora.
- Castro, J., Morales-Rueda, F., Navarro, F. B., Löf, M., Vacchiano, G., & Alcaraz-Segura, D. (2021). Precision restoration: A necessary approach to foster forest recovery in the 21st century. *Restoration Ecology*, 29(7), e13421.
- Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655-690). Springer.
- Chowdhury, M. M. H., Mahmud, A. S., Banik, S., Rabbane, F. K., Quaddus, M., & Alamgir, M. (2023). Resilience strategies to mitigate “extreme” disruptions in sustainable tourism supply chain. *Asia Pacific Journal of Marketing and Logistics*.
- Coombs, J. E., & Bierly III, P. E. (2006). Measuring technological capability and performance. *R&D Management*, 36(4), 421-438.
- Corcoles Munoz, M. M., Parra Requena, G., Garcia Villaverde, P. M., & Ruiz Ortega, M. J. (2023). Relational antecedents of sustainability orientation in hospitality and tourism firms: the mediating role of absorptive capacity. *Journal of Sustainable Tourism*, 31(3), 778-800.
- Crăciun, A. M., Dezs, Ş., Pop, F., & Cecilia, P. (2022). Rural Tourism—Viable Alternatives for Preserving Local Specificity and Sustainable Socio-Economic Development: Case Study—“Valley of the Kings”(Gurghiului Valley, Mureş County, Romania). *Sustainability*, 14(23), 16295.
- Dedeoğlu, B. B., Van Niekerk, M., Küçüker, K. G., De Martino, M., & Okumuş, F. (2020). Effect of social media sharing on destination brand awareness and destination quality. *Journal of Vacation Marketing*, 26(1), 33-56.
- Farrukh, A., Mathrani, S., & Taskin, N. (2020). Investigating the theoretical constructs of a green lean six sigma approach towards environmental sustainability: a systematic literature review and future directions. *Sustainability*, 12(19), 8247.
- Gadermann, A. M., Guhn, M., & Zumbo, B. D. (2012). Estimating ordinal reliability for Likert-type and ordinal item response data: A conceptual, empirical, and practical guide. *Practical Assessment, Research, and Evaluation*, 17(1), 3.
- Gambatese, J. A., & Hallowell, M. (2011). Factors that influence the development and diffusion of technical innovations in the construction industry. *Construction Management and Economics*, 29(5), 507-517.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1), 5.



- Gruchmann, T., Topp, M., & Seeler, S. (2022). Sustainable supply chain management in tourism: a systematic literature review. *Supply Chain Forum: An International Journal*,
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the academy of marketing science*, 45(5), 616-632.
- Hajar, M. A., Ibrahim, D. N., Darun, M. R., & Al-Sharafi, M. A. (2020). Value innovation activities in the wireless telecommunications service sector: A case study of the Malaysian market. *Journal of Global Business Insights*, 5(1), 57-72.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Horswill, E., Martin, J., & Guy, J. A. (2020). Establishing a functional framework for monitoring protected landscapes; with a case study of English Areas of Outstanding Natural Beauty (AONB). *Ecological Indicators*, 119, 106806.
- Kantabutra, S., & Ketprapakorn, N. (2021). Toward an organizational theory of resilience: an interim struggle. *Sustainability*, 13(23), 13137.
- Ku, E. C. (2022). Technological capabilities that enhance tourism supply chain agility: role of E-marketplace systems. *Asia Pacific Journal of Tourism Research*, 27(1), 86-102.
- Mandal, S., & Dubey, R. K. (2020). Role of tourism IT adoption and risk management orientation on tourism agility and resilience: Impact on sustainable tourism supply chain performance. *International Journal of Tourism Research*, 22(6), 800-813.
- Mariani, M., Bresciani, S., & Dagnino, G. B. (2021). The competitive productivity (CP) of tourism destinations: an integrative conceptual framework and a reflection on big data and analytics. *International Journal of Contemporary Hospitality Management*, 33(9), 2970-3002.
- Martínez-Peláez, R., Ochoa-Brust, A., Rivera, S., Félix, V. G., Ostos, R., Brito, H., Félix, R. A., & Mena, L. J. (2023). Role of Digital Transformation for Achieving Sustainability: Mediated Role of Stakeholders, Key Capabilities, and Technology. *Sustainability*, 15(14), 11221.
- Melya, R. (2022). Can the implementation of conservation village increase the environmental support in forest management in Bukit Barisan Selatan National Park, Lampung, Indonesia? *International Journal of Sustainable Development and Planning*, 17(3), 751-763.
- Moi, L., & Cabiddu, F. (2021). An agile marketing capability maturity framework. *Tourism management*, 86, 104347.
- MUHAMMAD, A., & ADILBEKOVA, K. (2023). Culinary Diplomacy: Unveiling the Palate as a Pathway to Stronger International Relations. *Ulusal ve Uluslararası Sosyoloji ve Ekonomi Dergisi*, 5(2), 431-449.
- Nabil, D. H., Rahman, M. H., Chowdhury, A. H., & Menezes, B. C. (2023). Managing supply chain performance using a real time Microsoft Power BI dashboard by action design research (ADR) method. *Cogent Engineering*, 10(2), 2257924.



- Ngoc, N. M., Tien, N. H., Hieu, V. M., & Trang, T. T. T. (2023). Sustainable Integration in Vietnam's Tourism Industry. *World review of entrepreneurship management and sustainable development*.
- Niaz, M., & Nwagwu, U. (2023). Managing Healthcare Product Demand Effectively in The Post-Covid-19 Environment: Navigating Demand Variability and Forecasting Complexities. *American Journal of Economic and Management Business (AJEMB)*, 2(8), 316-330.
- Núñez-Ríos, J. E., Sánchez-García, J. Y., Soto-Pérez, M., Olivares-Benitez, E., & Rojas, O. G. (2022). Components to foster organizational resilience in tourism SMEs. *Business Process Management Journal*, 28(1), 208-235.
- Pfeffer, J., & Salancik, G. (2015). External control of organizations—Resource dependence perspective. In *Organizational Behavior 2* (pp. 373-388). Routledge.
- Schuberth, F., Henseler, J., & Dijkstra, T. K. (2018). Partial least squares path modeling using ordinal categorical indicators. *Quality & Quantity*, 52(1), 9-35.
- Stylos, N., Zwiegelaar, J., & Buhalis, D. (2021). Big data empowered agility for dynamic, volatile, and time-sensitive service industries: the case of tourism sector. *International Journal of Contemporary Hospitality Management*, 33(3), 1015-1036.
- Suleiman, M. A. (2023). The impact of tourism supply chain on sustainable performance in sub-Saharan Africa: evidence from Tanzania. *Management of Environmental Quality: An International Journal*, 34(2), 492-510.
- Williams, C., You, J. J., & Joshua, K. (2020). Small-business resilience in a remote tourist destination: exploring close relationship capabilities on the island of St Helena. *Journal of Sustainable Tourism*, 28(7), 937-955.
- Yusuf, A. S., & Busalim, A. H. (2018). Influence of e-WOM engagement on consumer purchase intention in social commerce. *Journal of Services Marketing*.