

Framework for a resilient religious tourism supply chain for mitigating post-pandemic risk

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Abstract

Purpose – This paper aims to study the religious tourism supply chain and understand and introduce resilience across the same to mitigate post-pandemic disruptions.

Design/methodology/approach – In this manuscript, a systematic literature review has been done to identify the gaps in the religious tourism supply chain, which gives adequate revenue to India but not studied yet. The identified gap shaped this study's objectives and research questions and guided the authors to devise a theoretical framework for the religious tourism supply chain.

Findings – The key findings of this research paper led to identifying both threats and opportunities for the religious tourism supply chain, which has been into existence and caused many disasters in the past. As pandemic Covid-19 shut the doors of these religious destinations for extended periods, it became necessary for governments, state authorities and private parties to think and devise the post unlock operating processes for this supply chain. This thinking directed the authors to create a framework for the smooth flow of people and other services across this supply chain. The collaborative efforts of all the stakeholders at various levels can realize the actual working of the suggested framework. A stagewise set of processes has been proposed to understand the resilience across the religious tourism supply chain and reduce disruptions.

Practical implications – Covid-19 pandemic has devastated the world economies and disrupted the supply chains of all sectors. The paper elaborates the need for cohesive efforts to introduce resilience across humanitarian supply chains and phase-wise processes to reduce the disruptions caused by various disasters. These systematic efforts will familiarize the readers with the need for resilience across the religious tourism supply chain. Still, it would also assist in generating revenue for the Indian government and reviving the economy soon.

Originality/value – The trade of religious tourism adds a significant contribution to the Indian economy in terms of revenue, employment, visibility of culture and destination, etc. The Covid-19 pandemic has immensely disrupted the tourism sector supply chain, resulting in huge losses (FICCI report 2020). The introduction and implementation of resilience across the religious tourism supply chain can diminish the losses and assist in reviving the economy soon. Construct of resilience across the religious tourism supply chain has not been studied yet. This manuscript contributes to identifying post-pandemic challenges across the religious tourism supply chain and ways to integrate resilience to reduce disruptions caused by disasters.

Keywords Supply chain disruption, Supply chain resilience, Supply chain risk, Supply chain framework, Tourism supply chain, Religious tourism supply chain, Mitigation, India

Paper type Research paper

1. Introduction

The frequency and intensity of disasters are rising (Whybark *et al.*, 2010) due to urbanization, exponential use of natural resources and heavy influx of people at destinations of limited capacity. Whenever any disaster occurs at a specific goal or worldwide, the supply chains are



disrupted. The created disruptions across any supply chain affect the flow of goods and services (Craighead *et al.*, 2007). The extent of these disaster-oriented disruptions is so unpredictable that organizations fail to recover from the severity for an extended period. Many supply chain experts claim that supply chains can bear these disruptions if they are resilient enough (Christopher and Peck, 2004; Sheffi and Rice, 2005) and describe the notion of resilience as the capability of a supply chain to handle the disturbances with or without permissible shrinkage in performance. A review by Tukamuhabwa *et al.* (2015) defined supply chain resilience as the ability to respond to disruptions and equip itself for a better state than before. Therefore the notion of supply chain resilience has been considered as a safe as well as a tactical weapon to fight all such issues and has drawn substantial attention from industry and academia as well (Ambulkar *et al.*, 2015; Brandon-Jones *et al.*, 2014; Hohenstein *et al.*, 2015; Kamalahmadi and Parast, 2016; MacDonald *et al.*, 2018; Purvis *et al.*, 2016; Scholten and Schilder, 2015; Scholten *et al.*, 2019; Sheffi, 2001; Stevenson and Busby, 2015; Tukamuhabwa *et al.*, 2017). There is adequate published literature available for resilience across any supply chain. Still, a considerable scope lies in studying and implementing the concept in the context of different types of disasters. Scholten *et al.* (2014) created a framework for building supply chain resilience over the four phases of disaster management in the specific context of the Hurricane in New Orleans. Haraguchi and Lall (2014, 2015) explained the resilience and disaster vis-a-vis flood risks and their impact in their study for Thailand. India, a country believing in religious universalism (*Sarva Dharma Sama Bhava*), is a hub of many religious sites for domestic and inbound tourists. Last-mile connectivity, infrastructural development and government initiatives have made religious tourism a lucrative business for the country. Contrary to the same, lack of attention and standard operating procedures have made the religious tourism supply chain vulnerable to various threats, e.g. frequent floods in Uttarakhand province (Pande, 2010), land-slides at *Vaishno Devi* shrine (Parkash, 2011) and stampede in Sabrimala (Pradeep Kumar *et al.*, 2011).

The outburst of Coronavirus in December 2019 disrupted supply chains worldwide. The service supply chains, especially tourism, got a deeper jolt in comparison to manufacturing supply chains. The intensity of this catastrophe was so high that Worldwide pilgrimage journeys like Hajj 2020 (mandatory obligatory trip for able Muslim) and a visit to Vatican City churches got cancelled. In a country like India, it was beyond imagination that religious destinations (*Shirdi Sai Baba temple, Vaishno Devi Shrine, Vrindavan, etc.*) were shut for more than six months. The Indian government cancelled many seasonal religious journeys (*Badri Nath Yatra, Kailash Mansarovar Yatra, Kawad Yatra*). So, the pious religious destinations already facing challenges due to heavy human influx, e.g. environmental pollution, cultural pollution had one more reason to face disruptions across the religious tourism supply chain. In the past, disaster and loss of lives were considered wish and sacrifice in the name of God. However, this time, the disaster to be confronted and measures to be followed are different. Post lockdown, social distancing will be a part of everyday routine to prevent mass gatherings. People-oriented religious destinations will face many more challenges to upkeep the belief and emotions of people. Post pandemic, no physical offerings (*Prasad*), no holy water distribution (*Charanamrit*) and no idol touching would be allowed till normalcy is restored. This manuscript attempts to recognize post-pandemic challenges at these religious destinations and propose a conceptual framework to integrate resilience across the religious tourism supply chain. The proposed framework will address the immediate issues and contribute to eradicating the existing ones.

The manuscript is organized in the following way. Post introduction is the literature review covered under three segments: supply chain resilience, tourism supply chain and religious tourism in India. Objectives are framed after the identification of the research gap. The research methodology is described in the subsequent section. A tentative framework has been proposed to incorporate resilience as a construct across the religious tourism supply

chain. The result and conclusion section describes the implications of the proposed framework. It also illustrates the set of processes to be followed across various phases of disaster management in the context of the religious tourism supply chain. Limitations and scope of further research have been discussed in the final section.

2. Literature review

Review of literature generally serves two purposes: identifying patterns, themes and issues related to a field or recognizing the conceptual content of a specific area. The mentioned two purposes assist in finding the conceptual content (Harland *et al.*, 2006; Meredith, 1993) and shaping new theories. According to Fink (2005) “A literature review is a systematic, explicit, and reproducible design for identifying, evaluating, and interpreting the existing body of recorded documents”. Reviewing the literature of this manuscript was not an easy journey for the authors because despite much attention to resilience and religious tourism to date, introducing resilience across the religious tourism supply chain has not been discussed so far. Religious tourism contributes a sizeable figure to the GDP of many countries like India, Saudi Arabia, Vatican City, etc. (Ladki and Mazeh, 2017; Shinde, 2018). The authors reviewed three categories of literature to find the gaps in past studies (Figure 1). A segment of published work described the importance, reviews, attributes, integration and theoretical foundations of

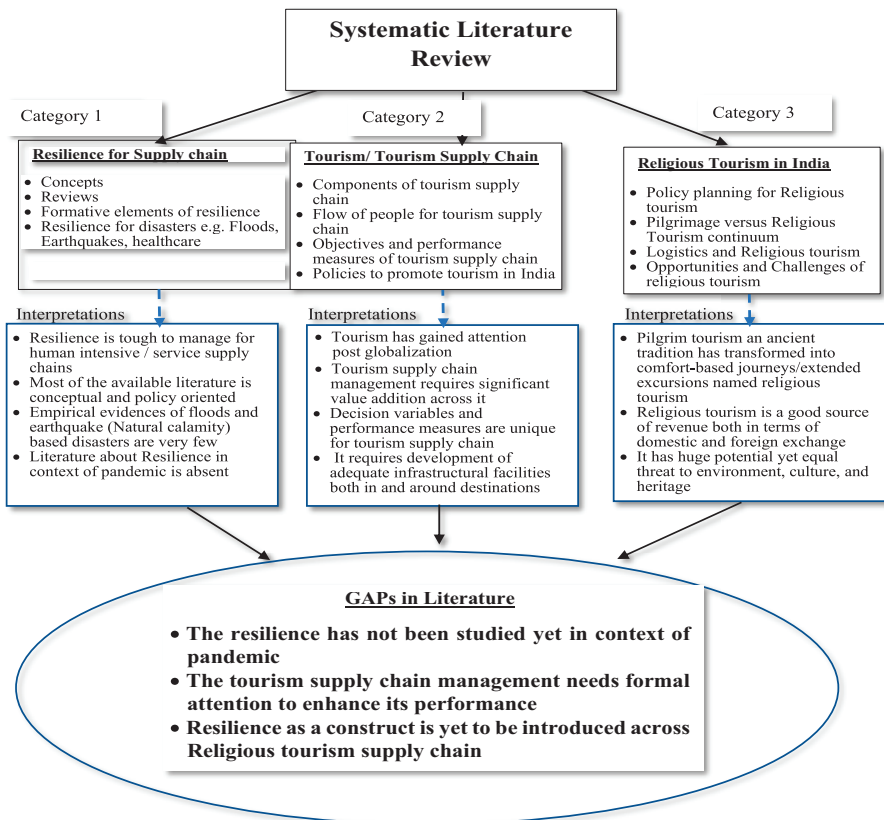


Figure 1. Systematic literature review

resilience theories in the context of various supply chains. Another section of literature from academia as well as industry-focused upon tourism or tourism supply chain. The third category of work dealt with issues and challenges, literature reviews, potentials, and possibilities, of religious tourism. Since the requirement of this manuscript was to introduce resilience across the religious tourism supply chain, the method used for searching the literature followed these steps:

- (1) Searching online databases (majorly Emerald, Science Direct, TU Dublin, Taylor and Francis) using appropriate keywords like religious tourism, tourism supply chain, disasters across service sector supply chain, resilience across service supply chain, etc.
- (2) Referring to the citations and filtering the required information.
- (3) Reading the abstracts and, if required, complete texts.
- (4) Final sort.

The authors tried to delimit the time frame, and articles post year 2010 were the primary source for this study, yet did not avoid many earlier ones due to fundamental relevance (Christopher and Peck, 2004; Sheffi, 2001; Zhang *et al.*, 2009).

2.1 Supply chain resilience

A Survey by World Economic Forum (2013) described that more than 80% of companies are concerned about the resilience of their supply chains because resilience is the “ability of a system to return to its original state or move to a new desirable state after being disturbed”. Supply chain resilience sought the attention of academicians due to its vital role (e.g. Ambulkar *et al.*, 2015; Brandon-Jones *et al.*, 2014; Hohenstein *et al.*, 2015; MacDonald *et al.*, 2018; Kamalahmadi and Parast, 2016; Purvis *et al.*, 2016; Scholten and Schilder, 2015; Scholten *et al.*, 2019, 2020; Sheffi, 2001; Stevenson and Busby, 2015; Tukamuhabwa *et al.*, 2015, 2017). Ponomarov and Holcomb (2009) describe that most of the writings related to supply chain resilience are conceptual. The reviewed literature by Ali *et al.* (2017), Hohenstein *et al.* (2015), Kamalahmadi and Parast (2016), Kochan and Nowicki (2018), Stone and Rahimifard (2018), Tukamuhabwa *et al.* (2015) witnessed the work of supply chain resilience as conceptual, theoretical and normative. It merely elaborated the selection and implementation of suitable techniques for integrating and cultivating resilience across supply chains. Christopher and Peck (2004) and Sheffi (2001) recognized and explored formative elements of resilience in the context of financial disaster (Jüttner and Maklan, 2011). Brandon-Jones *et al.* (2014), Gligor *et al.* (2019), Scholten and Schilder (2015) identified the aspects of resilience and their interrelationships. It was studied in specific situations (Stone and Rahimifard, 2018) for the agri-food industry and (Abe and Ye, 2013; Day, 2014; Haraguchi and Lall, 2014, 2015; Scholten *et al.*, 2014) for disaster-related events. Given sustainability, it was studied by Fahimnia and Jabbarzadeh (2016), Ivanov (2018). Dubey *et al.* (2019), Min (2019), Papadopoulos *et al.* (2017) examined the impact of big data analytics and innovative technologies on resilience. Concluding from the above-cited contributions, the intangible existence of resilience across many other supply chains is due to be realized. The authors also deduce that penetrating resilience across human-intensive supply chains sound more complex and necessary due to an unpredictable set of requirements in disasters. Religious tourism, one of the human-intensive supply chains, requires immediate export of resilience across it.

2.2 Tourism supply chain in India

Tourism emerged as one of the lucrative service sectors, contributing significantly to India’s socio-economic growth post-economic liberalization. The multiplier effect of this sector

showed both direct and indirect effects in the form of employment generation, foreign exchange and infrastructure development (FICCI report, 2020). Various campaigns like “Incredible India”, “IRCTC schemes for senior citizens”, “Mahakaal express”, “PRASAD City” gave thrust to both the domestic and foreign tourist visits. To use the advantages of this sector, it has become necessary to provide multiple access points to promote tourism. India is ranked eighth (FICCI report, 2020) in terms of travel and tourism trade contribution to its GDP. The point of sale terminals, comfortable logistics, robust I.T. (information technology) infrastructure for the tourists from different zones drew the attention for managing the supply chain of this sector. The main components of a tourism supply chain were elaborated by Zhang *et al.* (2009) as in Figure 2.

As illustrated in Figure 2, the primary objectives of any tourism supply chain are to improve tourists’ satisfaction, diminish seasonality, promote sustainable tourism and protect the heritage and culture. Hence tourism supply chain drew the attention of stakeholders to manage and create value for the same.

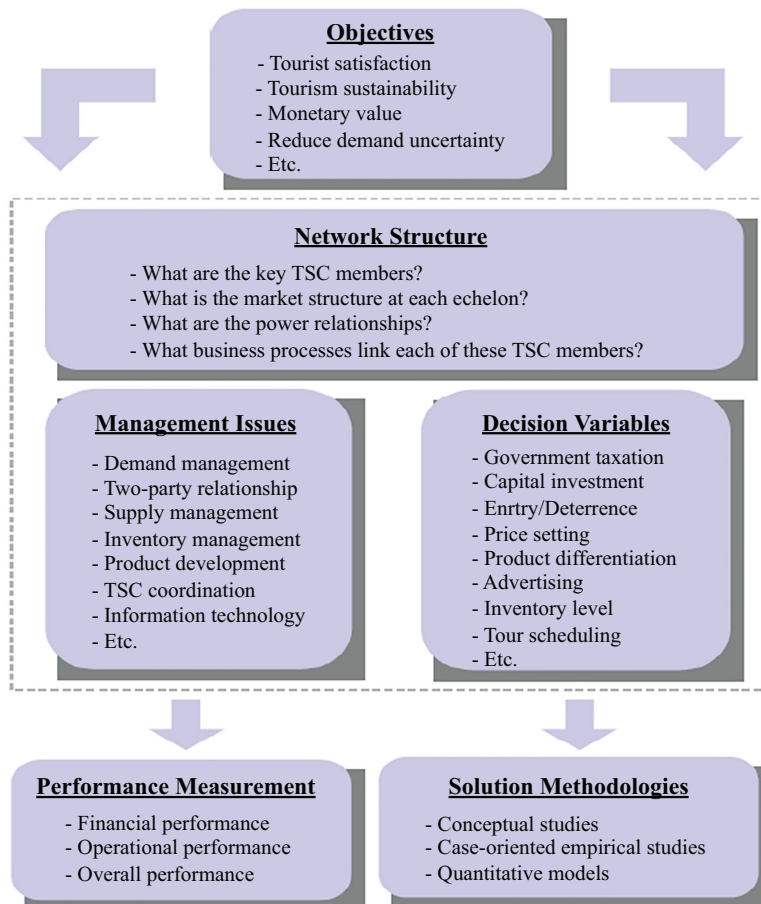


Figure 2.
Components of a
Tourism Supply Chain

Source(s): Zhang *et al.*, 2009, p. 348

2.3 Religious tourism in the Indian context

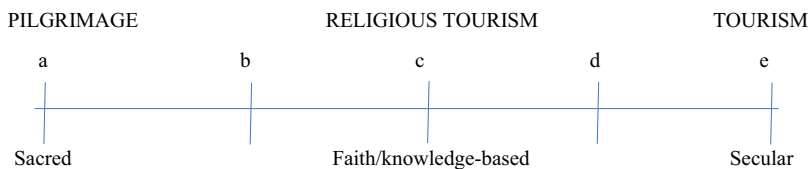
Religious tourism (traditionally known as a pilgrimage) is an essential element of society (Griffin and Raj, 2017). India, a country of solid societal roots, with ancient culture, strong heritage, multi-religion presence, is a centre of gravity for religious tourism. In India, the concept of religious tourism has two sides of a coin. The first segment of domestic tourists carries a divine connection. In contrast, the other element of in-bound tourists (foreign tourists) holds the aspects of a new spiritual experience differing from their own.

Nevertheless, the moral values remain the same. Due to the emergence of religious tourism from the ancient tradition of pilgrimage, refer to Figure 3, the intent, purpose and spirit remain religious, but the journey presents touristic features. The elevated affordability, last-mile connectivity and annual mandatory family outings are various causes of this phase shift. The transformation also led to the commodification of religious journeys with star packaged comfortable travels.

Sharma (2000) stressed on cohesive method and gradual increase in the quality of service across tourism industry. The book by Micheal (2014) explained the lively interface between religion and tourism. Shinde (2012) debated policy planning and concluded that a massive crowd at various religious destinations is the cause of threat to the cultural heritage and environment. Kakati (2016) discussed potentials and possibilities of religious tourism in India with particular reference to Shirdi Sai Baba temple. Katarzyna et al. (2014) focused on the association between religious tourism and logistics. Quattrocioni et al. (2017) studied the probable relationship between the tourism supply chain and strategic partnership to diminish the complexity across this chain. Sharma (2019) focused on the prospectus of religious tourism in India. The same author also discussed opportunities and challenges. A thesis, namely “Pilgrimage Tourism – A case study of Brajmandal” by Mishra (2000), stated that due to ease of logistics and better infrastructure facilities, many people are travelling to religious locations from the metros over the weekend. Hence organized management of the supply chain at these religious destinations became the need of the hour. A typical religious tourism supply chain flow is as mentioned in Figure 4 proposed by Song (2012).

From the literature studied across three subheads, the authors concluded that the trade of religious tourism has both pros and cons. Actions incorporating timely planning, controlling and driving changes are required across the religious tourism supply chain to make it robust and resilient. To convert the threats of this human-intensive trade into opportunities, the identified gap from the literature review (refer to Figure 1) helped the authors in drafting the objectives for this research as mentioned below:

- (1) To devise a framework for planning, controlling and driving changes for attaining uninterrupted flow of humans across religious tourism supply chains.



- a. pious pilgrim;
- b. pilgrim > tourist;
- c. pilgrim = tourist;
- d. pilgrim < tourist;
- e. secular tourist

Source(s): Smith (1992)

Figure 3.
The Pilgrim-
tourist path

- (2) To standardize the set of processes across four phases of Disaster Management for reducing disruptions across the religious tourism supply chain.

3. Research methodology

A methodological approach was followed for this study to achieve the objectives mentioned in section two. Research questions were phrased to attain the objectives using news articles, research papers, reports from authenticated bodies like FICCI, IBEF. All these secondary resources covered the period from March 21, 2020 (First Lockdown in India) to August 15, 2020 (Post third Unlock in India). During this time, all religious destinations were shut and opened for the general public with mandatory guidelines to be followed post third Unlock.

3.1 Research questions

- RQ1.* What are the opportunities and challenges of Religious Tourism in India?
- RQ2.* What are the possible disruptions caused by the Covid-19 pandemic across the Religious Tourism Supply chain in India?
- RQ3.* What is the existing degree of resilience across the supply chain of Indian religious tourism?

3.2 Answers to the research questions

The trade of religious tourism has shown a multiplier effect by contributing directly and indirectly to employment generation, infrastructure development and culture enhancement. Nevertheless, it has taken a toll on the sustainability, art and culture of India. [Table 1](#)



Figure 4.
Religious tourism supply chain flow

Opportunities	Threats
It creates revenue and enhances the visibility of the pilgrimage place It creates employment opportunities for the local crowd It enhances the beautification of religious places	It affects the ethical practices diminishing the piousness of holy sites (drugs, drinks, etc.) The local youth may be misguided by International tourists for International trips It disturbs natural resources by exponential misuse and affects sustainability
It provides infrastructural support to the religious place by the development of new facilities It uplifts the culture and tradition by global exposure	Excessive construction requires deforestation, subsequently resulting in natural disasters It obstructs the equilibrium of local communities and spoils tradition
It creates avenues of exchange and global relationship	Sometimes ignites the cross border religious and political issues

Table 1.
Religious tourism opportunities and challenges

illustrates the answer to the first research question and highlights the opportunities and threats from this trade in India.

The Covid-19 pandemic is a new and unpredictable disaster that has brought forth many unique and unexpected challenges across this human-intensive supply chain. Figure 5, created by the authors, identifies the disruptions caused by Covid-19 across the Indian Religious Tourism Supply chain. As the pandemic hit, concerned stakeholders faced a direct jolt of this disruption. This disruption led to some direct and indirect losses, as shown in Figure 5. Direct was in the form of revenue loss, and indirect were in the state of low destination visibility and diminished spiritual health. Logistic operators at both source and destinations faced the extended impact due to the cancellation of trips. Downstream players lost their livelihood. The figure answers the second research question.

The existing degree of resilience across the supply chain of Indian religious tourism is inferior, which can be witnessed by the disasters that have occurred at various religious destinations in the past and not handled appropriately (Pande, 2010; Parkash, 2011; Pradeep Kumar *et al.*, 2011; Sharma, 2019; Shinde, 2018). All these studies address the third research question.

Hence there exists an immediate need to develop a framework for introducing resilience across the Indian religious tourism supply chain. In section 4, the authors have developed and discussed a four-level framework for the same. For an effective framework, the required set of processes have been listed under the umbrella of reactive and proactive actions to manage the disruptions caused by the disaster. The set of processes are elaborated in section 5.

4. Proposed framework

The concept of resilience is multidisciplinary. In the context of disasters, it is the ability of units/individuals, groups/teams/VOADS (Haraguchi and Lall, 2014), communities, region /state /province, nation and across nations, to withstand and recover from stresses and shocks like violence, natural disasters, conflict, etc. Businesses, either human-intensive or capital intensive, depend upon each other and a minute disruption across any supply chain can cause severe consequences for both upstream and downstream suppliers. Because of the religious tourism supply chain, collaborative efforts among different groups can integrate the network and create an all-inclusive approach required to develop desirable supply chain resilience (Sheffi, 2001). Available literature about collaboration has also witnessed it as an essential element (Scholten *et al.*, 2014).

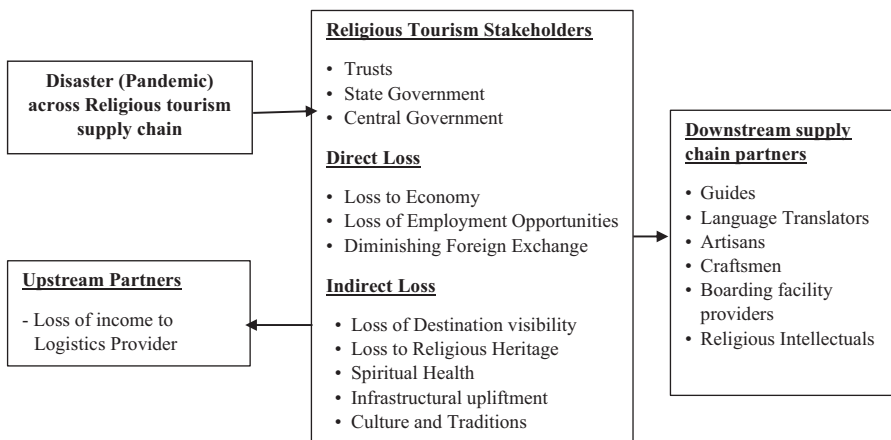


Figure 5. Disruptions caused by Covid-19 across religious tourism supply chain

The proposed framework by the authors has been drafted in line with work by Ponomarov and Holcomb (2009), Reich (2006), Scholten *et al.* (2014, 2020) for the religious tourism supply chain. The work of Ponomarov and Holcomb (2009) assisted the authors in understanding the concept and various attributes of resilience. Reich (2006) explained three psychological principles control, coherence, correctness to fight against disasters and the four-stage framework of Scholten *et al.* (2020) elaborated that resilience as a construct across supply chains should be introduced at all levels from individual to national or international.

4.1 Resilience level 1 (individual/team)

As shown in the proposed framework (refer to Figure 6) role of individuals or teams is pivotal during disasters. The religious tourism supply chain is human-centric, where the smooth flow of people is essential. According to the psychological concept of resilience, individuals who react and resist during adverse events should focus on ingressing resilience across any supply chain. Hence the authors support the four-stage framework (Scholten *et al.*, 2020) and recreate the same for the religious tourism supply chain. The threshold point to integrate resilience is through individuals and teams. They should adopt controlled, cohesive and corrective measures to diminish disruptions across the religious tourism supply chain.

During a pandemic, individuals should refrain from visiting these places to arrest the spread of the virus. The proportionate action by Religious clerics as an Individual can convince people by the notion that the presence of Almighty can be felt within the self instead of visiting the religious destinations, “*Ram math main nahi ghat mai hai*”. Post lockdown, visit the holy shrines should be allowed following all the safety measures issued by the regulatory bodies. Level 1 of the proposed framework also gains support from the work of Polyviou *et al.* (2020), Rubbio *et al.* (2020), Vanpoucke and Ellis (2019). To ingress the resilience, correct as well as controlled behaviour of an individual Vanpoucke and Ellis (2019); cohesive as well as a dynamic team approach and sufficient human resources/internal social capital (Rubbio *et al.*, 2020) is the key to assimilate resilience across this human dominant supply chain successfully.

4.2 Resilience level 2 (organizational level)

Moving from individual/team-based efforts to the level of organization, most of the resilience-based research has primarily focused on three parameters. It includes building up abilities to

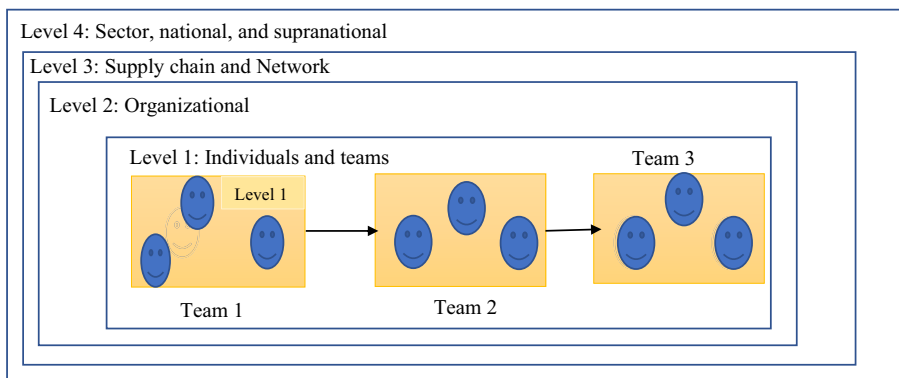


Figure 6. Application of Scholten *et al.* (2020) four-level framework to introduce resilience across religious tourism supply chain of India

manage disruptions by restructuring their supply chain (Ambulkar *et al.*, 2015), keeping redundancies in the form of surplus inventory or creating transparency of processes and routines (Jüttner and Maklan, 2011). The insights mentioned above apply majorly to the manufacturing sector. Religious tourism, a human-intensive service industry, needs the contribution of social wealth in case of disasters for building robust organizational resources. The participation of individuals and teams placed at level-1 in the authors' framework can play a significant role in building cohesive and solid corporate resources at level-2. Government initiatives and efforts by religious trusts can be effective when individuals (pilgrims or religious tourists), as well as various VOAD (Voluntary organizations active in disasters) like SEWAKS (Volunteers), NDRF (National Disaster Relief Force) teams, etc. work cohesively. These may save the holy destinations from various disasters. This concept is proposed after insights from the work of Rubbio *et al.* (2020), Scholten *et al.* (2020).

4.3 Resilience level 3 (supply chain level)

Moving from level-2 to level-3, the authors observed that despite strong resilience at the organizational level, smooth flow of goods and services in any supply chain is feasible only with a strong network amongst organizations. Scholten and Schindler (2015) explained that resilience in totality depends upon the individual capacity of supply chain players, networks and competitors. Nevertheless, the contribution of this phenomena at this level is dyadic in most of the supply chains. This dyadic association disregards the threats and opportunities beyond the boundary line of this relationship and shifts the risk downward (Tukamuhabwa *et al.*, 2017). The work of Martins de Sá *et al.* (2020) substantiated how two supply chains over three tiers equipped, replied and recouped from disruptions. The authors also illustrated in their study that if resilience is studied from the perspective of a central organization or two adjacent players, it may ignore the consequences of the overall chain. Contrary to this study (Scholten *et al.*, 2020) observed that resilience as a concept is primarily absent towards the upstream players and exists for the downstream players only. The downstream players are responsible for keeping resilience in place for any supply chain.

The authors also opine that unlike (Scholten *et al.*, 2020), who supported the dependency of resilience more on downstream players, the contribution of each node is more evident in building resilience as an overall process (Martins de Sá *et al.*, 2020). This contribution would diminish the consequences of disaster and arrest the shifting of risk from one node to another. Given the religious tourism supply chain, the authors propose a smooth flow of services at all nodes of the supply chain network to introduce resilience during disasters. Players of the service supply chain should function in synchronous mode during disasters to provide appropriate health, safety and security services to the affected human capital. The working social capital assisting people should not pass on the responsibility to downstream suppliers. Also, the different organizations involved in services should be flexible enough to provide services across all network nodes instead of limiting their usefulness to immediate partner. Many of these organizations are stationed away from the affected destinations, e.g. armed forces, NDRF (national disaster relief force), etc. These national-level groups can service only with a strong flow of network between source and destination. The flow of organizations and teams across different nodes also authenticates the role of logistics across the religious tourism supply chain (Quattrociochi *et al.*, 2017). Post pandemic, the smooth flow of logistics between source and organization shall make the supply chain resilient and safe for the prospective tourists.

4.4 Resilience level 4 (sectors, national and supranational)

As described in the above three levels of framework, resilience should be studied in a holistic context instead of focusing on a specific point. Leat and Revoredo-Giha (2013) described that

supply chain resilience should be learned in a broader context wherein individuals or teams, organizations and supply chains are deep-rooted to contribute to resilience at a higher level of aggregation, adding resilience at an industry, national and supranational level. The study by Martins de Sá *et al.* (2020) highlighted agricultural supply chain resilience. Stone and Rahimifard (2018), in light of sugarcane and an orange supply chain, form few sectoral works that construct resilience across agri-supply chains. The study (Rubbio *et al.*, 2020) extends resilience across the healthcare supply chain. Extending resilience across religious tourism will also push to develop the theme across other branches of tourism, eco-tourism, adventure tourism, medical tourism, etc. Post-pandemic precautions to be followed by the religious tourism sector would enhance the resilience of this supply chain. Further, this may benefit the global tourism industry, focusing on pious destinations of mass gathering like Hajj, Churches, etc., across other countries.

Supply chain and organizations should operate vis-à-vis to lower the threats for the entire industry, country and the associated nations. The stock of articles reflects the same. Like, the impact of Brexit on Agri-food supply chains brought constitutional changes (Hendry *et al.*, 2019) to the UK (United Kingdom). The decision of the European Union made energy supply chains resilient (Urciuoli *et al.*, 2014) with suggestions for support mechanism. Additions to the same were realized with the blow of transitional occurrences like belt and road initiative on supply chain resilience (Thürer *et al.*, 2019). In the specific context of disasters (Kovács and Spens, 2007; Kunz *et al.*, 2017), focused on humanitarian logistics and disaster management. Dufour *et al.* (2018), Holguín-Veras *et al.* (2014), Perry (2007) discussed specific disasters and their effect on supply chains that deliver services to affected populations. The pandemic Covid-19, in the year 2020, enforced the release of national-level guidelines to be implemented across the nation for domestic and inbound tourists visiting religious destinations. It is necessary to foster knowledge and instruct people for implementing resilience at level 4 and make it effective across the country and beyond borders. The Indian government has issued national level standard operating procedures (SOPs) to save the destinations from spreading the virus. Touching of idols is restricted, no physical offerings, no holy water (*Charanamrit*), no mass gatherings during seasonal religious ceremonies (*Puri Rath yatra*, *Kawad yatra*, *Ganesh Chaturthi*) are few nationwide initiatives to settle resilience deeper across this supply chain.

5. Results and conclusions

Resilience in the context of disaster management refers to the ability of an individual, a household, a community, a country, or a region to withstand, adapt and quickly recover from stresses and shocks. The sources of surprises can be drought, violence, conflict or natural disaster. Prediction of disasters and their consequences upon humans and habitat cannot be determined beforehand. Managing a supply chain during disasters is difficult due to many unforeseeable factors like uncertain demand for specific resources, change in processes, aligning the system with new requirements, etc. Hence introducing resilience across human-intensive supply chains is also a challenge.

With the unpredictable nature of disasters and their aftereffects, the measures to mitigate the same should also be proportionate. The proposed four-stage framework (Figure 6) highlights the dire need for co-operative cum integrative efforts by all the stakeholders. As religious tourism is a human-intensive service supply chain, actions of one and all are required to mitigate disasters. Nevertheless, the set of processes to be followed by all stakeholders of this supply chain should also be identified and divided as per the nature of the disaster. Phase-wise identification and implementation of processes will reduce the impact of disaster and help the authorities optimize the resources. The four-stage disaster management process model, elaborated by Helferich and Cook (2002) and applied in view of the religious

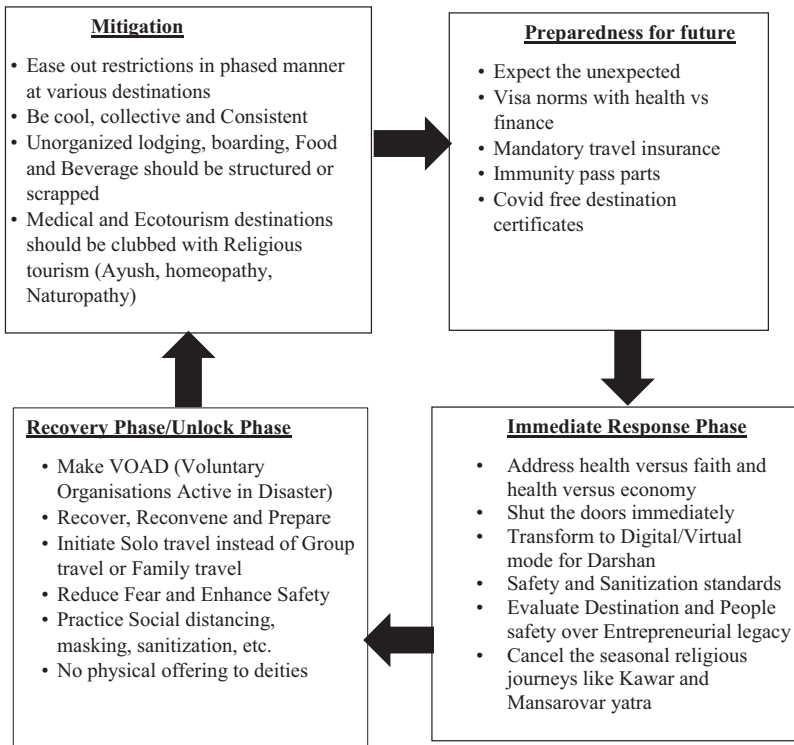


Figure 7.
Application of
Helferich and Cook
(2002) model to identify
and divide phase-wise
disaster management
processes in view of
Indian religious
tourism supply chain

tourism supply chain during the pandemic, brings forth the set of processes to be followed by all the stakeholders' phase-wise (Refer to [Figure 7](#)). This would minimize the immediate risk caused by pandemic and enable the religious tourism supply chain to withstand future disasters. As mentioned in [Table 1](#), various existing religious tourism supply chains have created a cumulative impact post-pandemic. The collaborative efforts by all stakeholders and phase-wise identification and execution of disaster management processes will reduce the pandemic-based immediate challenges rather than save the pious religious destinations from past, present and future shocks.

As displayed in [Figure 7](#), the four phases of disaster management are cyclic and can work simultaneously. The four phases can be categorized as a reactive and proactive set of processes. A reactive set of processes (immediate and recovery phase) presents an operational perspective of disaster management for the religious tourism supply chain. In contrast, a proactive (mitigation and preparedness for future) set of processes represents the same strategic view. Identifying the operations by the authors for the four phases seems to hold great potential for understanding to build a resilient tourism supply chain.

6. Limitations and future scope

Admittedly the study has got limitations due to constraint of time and resources. The application of the proposed framework ([Figure 6](#)) and set of processes ([Figure 7](#)) elaborated in the religious tourism supply chain context could have been substantiated with empirical evidence to make them more realistic. However, after a systematic literature review, the

authors identified that resilience across the religious tourism supply chain is negligible or absent. Due to the lack of prior research in the same context, the authors' primary focus was to understand and introduce resilience across the religious tourism supply chain during disasters and develop a mix of the reactive and proactive set of processes to mitigate the present and post-Covid disruptions. Also, this manuscript was prepared considering majorly Hindu religious destinations only in India. Hence, the mentioned limitations can serve as an ample opportunity for future research in the same domain.

References

- Abe, M. and Ye, L. (2013), "Building resilient supply chains against natural disasters: the cases of Japan and Thailand", *Global Business Review*, Vol. 14 No. 4, p. 567.
- Ali, A., Mahfouz, A. and Arisha, A. (2017), "Analyzing supply chain resilience: integrating the constructs in a concept mapping framework via a systematic literature review", *Supply Chain Management: International Journal*, Vol. 22 No. 1, p. 16.
- Ambulkar, S., Blackhurst, J. and Grawe, S. (2015), "Firm's resilience to supply chain disruptions: scale development and empirical examination", *Journal of Operations Management*, Vols 33-34, p. 111.
- Brandon-Jones, E., Squire, B., Autry, C.W. and Petersen, K.J. (2014), "A contingent resource-based perspective of supply chain resilience and robustness", *Journal of Supply Chain Management*, Vol. 50, p. 55.
- Christopher, M. and Peck, H. (2004), "Building the resilient supply chain", *International Journal of Logistics Management*, Vol. 15 No. 2, p. 1.
- Craighead, C.W., Blackhurst, J., Rungtusanatham, M.J. and Handfield, R.B. (2007), "The severity of supply chain disruptions: design characteristics and mitigation capabilities", *Decision Sciences*, Vol. 38 No. 1, p. 131.
- Day, J.M. (2014), "Fostering emergent resilience: the complex adaptive supply network of disaster relief", *International Journal of Production Research*, Vol. 52 No. 7, p. 1970.
- Dubey, R., Gunasekaran, A., Childe, S.J., Fosso Wamba, S., Roubaud, D. and Foropon, C. (2019), "Empirical investigation of data analytics capability and organizational flexibility as complements to supply chain resilience", *International Journal of Production Research*, Vol. 59, pp. 110-128, doi: [10.1080/00207543.2019.1582820](https://doi.org/10.1080/00207543.2019.1582820).
- Dufour, É., Laporte, G., Paquette, J. and Rancourt, M.É. (2018), "Logistics service network design for humanitarian response in East Africa", *Omega*, Vol. 74, p. 1.
- Fahimnia, B. and Jabbarzadeh, A. (2016), "Marrying supply chain sustainability and resilience: a match made in heaven", *Transportation Research Part E: Logistics and Transportation Review*, Vol. 91, p. 306.
- FICCI report (2020), "Travel and Tourism - Survive, revive and thrive in times of COVID-19", FICCI, available at: <http://ficci.in/spdocument/23252/Travel-june-FGT-n.pdf> (accessed 15 July 2020).
- Fink, A. (2005), *Conducting Research Literature Reviews: From the Internet to Paper*, Sage Publication, New Delhi.
- Gligor, D., Gligor, N., Holcomb, M. and Bozkurt, S. (2019), "Distinguishing between the concepts of supply chain agility and resilience: a multidisciplinary literature review", *International Journal of Logistics Management*, Vol. 30, p. 467.
- Griffin, K. and Raj, R. (2017), "The Importance of Religious Tourism and Pilgrimage: reflecting on definitions, motives and data", *International Journal of Religious Tourism and Pilgrimage*, Vol. 5 No. 3, pp. iii-ix, Article 2, doi: [10.21427/D7242Z](https://doi.org/10.21427/D7242Z).
- Haraguchi, M. and Lall, U. (2014), "Making supply chains resilient to disasters", *Asian Disaster Management News*, p. 52, available at: <https://www.wcdrr.org/wcdrr-data/uploads/469/>

- [Haraguchi_Lall_Making+supply+chain+resilient+to+disasters.pdf](#) (accessed 10 August 2020).
- Haraguchi, M. and Lall, U. (2015), "Flood risks and impacts: a case study of Thailand's floods in 2011 and research questions for supply chain decision making", *International Journal of Disaster Risk Reduction*, Vol. 4, p. 256.
- Harland, C.M., Lamming, R.C., Walker, H., Philips, W.E., Caldwell, N.D. and Johnson, T.E. (2006), "Supply management: is it a discipline?", *International Journal of Operations and Production Management*, Vol. 26 No. 7, p. 730.
- Helferich, O.K. and Cook, R.L. (2002), *Securing the Supply Chain: Management Report*, CLM Publications, Oak Brook, IL.
- Hendry, L.C., Stevenson, M., MacBryde, J., Ball, P., Sayed, M. and Liu, L. (2019), "Local food supply chain resilience to constitutional change: the Brexit effect", *International Journal of Operations and Production Management*, Vol. 39 No. 3, p. 429.
- Hohenstein, N.O., Feisel, E., Hartmann, E. and Giunipero, L. (2015), "Research on the phenomenon of supply chain resilience: a systematic review and paths for further investigation", *International Journal of Physical Distribution and Logistics Management*, Vol. 45 Nos 1/2, p. 90.
- Holguín-Veras, J., Taniguchi, E., Jaller, M., Aros-Vera, F., Ferreira, F. and Thompson, R.G. (2014), "The Tohoku disasters: chief lessons concerning the post-disaster humanitarian logistics response and policy implications", *Transportation Research Part A: Policy and Practice*, Vol. 69, p. 86.
- Ivanov, D. (2018), "Revealing interfaces of supply chain resilience and sustainability: a simulation study", *International Journal of Production Research*, Vol. 56 No. 10, p. 3507.
- Jüttner, U. and Maklan, S. (2011), "Supply chain resilience in the global financial crisis: an empirical study", *Supply Chain Management: International Journal*, Vol. 16 No. 4, p. 246.
- Kakati, S. (2016), "Study on religious tourism-potential and possibilities with reference to Shirdi A place of religious tourism", *International Interdisciplinary Research Journal*, Vol. 6 No. 3, p. 115.
- Kamalahmadi, M. and Parast, M.M. (2016), "A review of the literature on the principles of enterprise and supply chain resilience: major findings and directions for future research", *International Journal of Production Economics*, Vol. 171 No. 1, p. 116.
- Katarzyna, G., Beata, S. and Sebastian, K. (2014), "Logistics view on religious tourism", Conference paper, available at: https://www.researchgate.net/profile/Sebastian_Kot/publication/266825665_Logistics_view_on_religious_tourism/links/543cdd240cf24ef33b7646b1/Logistics-view-on-religious-tourism.pdf.
- Kochan, C.G. and Nowicki, D.R. (2018), "Supply chain resilience: a systematic literature review and typological framework", *International Journal of Physical Distribution and Logistics Management*, Vol. 48 No. 8, p. 842.
- Kovács, G. and Spens, K.M. (2007), "Humanitarian logistics in disaster relief operations", *International Journal of Physical Distribution and Logistics Management*, Vol. 37 No. 2, p. 99.
- Kunz, N., Van Wassenhove, L.N., Besiou, M., Hambye, C. and Kovács, G. (2017), "Relevance of humanitarian logistics research: best practices and way forward", *International Journal of Operations and Production Management*, Vol. 37 No. 11, p. 1585.
- Ladki, S.M. and Mazeh, R.A. (2017), "Comparative pricing analysis of Mecca's religious tourism", *International Journal of Religious Tourism and Pilgrimage*, Vol. 5 No. 1, doi: [10.21427/D76Q7Z](https://doi.org/10.21427/D76Q7Z).
- Leat, P. and Revoredo-Giha, C. (2013), "Risk and resilience in agri-food supply chains: the case of the ASDA PorkLink supply chain in Scotland", *Supply Chain Management: International Journal*, Vol. 18 No. 2, p. 219.
- MacDonald, J.R., Zobel, C.W., Melnyk, S.A. and Griffis, S.E. (2018), "Supply chain risk and resilience: theory building through structured experiments and simulation", *International Journal of Production Research*, Vol. 56 No. 12, p. 4337.

- Martins de Sá, M., Laczynski de Souza Miguel, P., Peregrino de Brito, R. and Farias Pereira, S.C. (2020), "Supply chain resilience: the whole is not the sum of the parts", *International Journal of Operations and Production Management*, Vol. 40 No. 1, p. 92.
- Meredith, J. (1993), "Theory building through conceptual methods", *International Journal of Operations and Production Management*, Vol. 13 No. 5, p. 3.
- Micheal, S. (2014), "Religion and spirituality in tourism", in Alan, A., Lew, C., Michael, H. and Williams, A.M. (Eds), Chapter 28, pp. 349-360, doi: [10.1002/9781118474648.ch28](https://doi.org/10.1002/9781118474648.ch28) (accessed 4 April 2014).
- Min, H. (2019), "Blockchain technology for enhancing supply chain resilience", *Business Horizons*, Vol. 62 No. 1, p. 35.
- Mishra, R. (2000), "Pilgrimage tourism", in William, H.S. Jr and Tomasi, L. (Ed.), *Religion in the Age of Transformation from Medieval Pilgrimage to Religious Tourism*, ABC-CLIO.
- Pande, R.K. (2010), "Flash flood disasters in Uttarakhand", *Disaster Prevention and Management*, Vol. 19 No. 5, p. 565.
- Papadopoulos, T., Gunasekaran, A., Dubey, R., Altay, N., Childe, S.J. and Fosso-Wamba, S. (2017), "The role of Big Data in explaining disaster resilience in supply chains for sustainability", *Journal of Cleaner Production*, Vol. 142, p. 1108.
- Parkash, S. (2011), "Historical records of socio-economically significant land-slides in India", *Journal of South Asia Disaster Studies*, Vol. 4 No. 2, p. 177.
- Perry, M. (2007), "Natural disaster management planning: a study of logistics managers responding to the tsunami", *International Journal of Physical Distribution and Logistics Management*, Vol. 37 No. 5, p. 409.
- Polyviou, M., Croxton, K.L. and Knemeyer, A.M. (2020), "Resilience of medium-sized firms to supply chain disruptions: the role of internal social capital", *International Journal of Operations and Production Management*, Vol. 40 No. 1, p. 68.
- Ponomarov, S.Y. and Holcomb, M.C. (2009), "Understanding the concept of supply chain resilience", *International Journal of Logistics Management*, Vol. 20 No. 1, p. 124.
- Pradeep Kumar, A.P., Hsu, E., Shah, S., Burkle, F. and Joseph, J.K. (2011), "Epidemiology of stampedes: the case of Sabarimala pilgrimage in Kerala, India", *International Conference on Comprehensive Disaster Management 2011: Disaster Risk and Vulnerability Conference at Mahatma, Gandhi University, Kottayam, Kerala*.
- Purvis, L., Spall, S., Naim, M. and Spiegler, V. (2016), "Developing a resilient supply chain strategy during 'boom' and 'bust'", *Production Planning and Control*, Vol. 27 Nos 7-8, p. 579.
- Quattrocioni, B., Mercuri, F., Perano, M. and Calabrese, M. (2017), "Tourism supply chain management and strategic partnerships for managing the complexity in tourism industry", *Enlightening Tourism. A Pathmaking Journal*, Vol. 7 No. 1, p. 62.
- Reich, J.W. (2006), "Three psychological principles of resilience in natural disasters", *Disaster Prevention and Management: International Journal*, Vol. 15 No. 5, p. 793.
- Rubbio, I., Bruccoleri, M., Pietrosi, A. and Ragonese, B. (2020), "Digital health technology enhances resilient behaviour: evidence from the ward", *International Journal of Operations and Production Management*, Vol. 40 No. 1, p. 34.
- Scholten, K. and Schilder, S. (2015), "The role of collaboration in supply chain resilience", *Supply Chain Management: International Journal*, Vol. 20 No. 4, p. 471.
- Scholten, K., Sharkey Scott, P. and Fynes, B. (2014), "Mitigation processes – antecedents for building supply chain resilience", *Supply Chain Management: International Journal*, Vol. 19 No. 2, p. 211.
- Scholten, K., Sharkey Scott, P. and Fynes, B. (2019), "Building routines for non-routine events: supply chain resilience learning mechanisms and their antecedents", *Supply Chain Management: International Journal*, Vol. 24 No. 3, p. 430.

- Scholten, K., Stevenson, M., Van, D. and Dirk, P. (2020), "Dealing with the unpredictable: supply chain resilience", *International Journal of Operations and Production Management*, Vol. 40, p. 1.
- Sharma, J.K. (2000), *Tourism Planning and Development*, Kanishka Publisher, New Delhi, p. 17.
- Sharma, T. (2019), *Prospects of Religious Tourism in India*, Aditi Publication, Chhattisgarh, pp. 358-367, ISSN: 2581-6918 (Online), 2582-1792 (PRINT), available at: <http://shodhsamagam.com/admin/uploads/Prospects%20of%20Religious%20Tourism%20in%20India.pdf> (accessed 5 August 2020).
- Sheffi, Y. (2001), "Supply chain management under the threat of international terrorism", *International Journal of Logistics Management*, Vol. 12 No. 2, p. 1.
- Sheffi, Y. and Rice, J.B. Jr (2005), "A supply chain view of the resilient enterprise", *MIT Sloan Management Review*, Vol. 47 No. 1, p. 41.
- Shinde, K. (2012), "Policy, planning, and management for religious tourism in Indian pilgrimage sites", *Journal of Policy Research in Tourism, Leisure and Events*, Vol. 4 No. 3, p. 277.
- Shinde, K. (2018), "Governance and management of religious tourism in India", *International Journal of Religious Tourism and Pilgrimage*, Vol. 6 No. 1, p. 58.
- Smith, V.L. (1992), "Introduction: the quest in guest", *Annals of Tourism Research*, Vol. 19, pp. 1-17, doi: [10.1016/0160-7383\(92\)90103-V](https://doi.org/10.1016/0160-7383(92)90103-V).
- Song, H. (2012), *Tourism Supply Chain Management*, Routledge, New York.
- Stevenson, M. and Busby, J. (2015), "An exploratory analysis of counterfeiting strategies towards counterfeit-resilient supply chains", *International Journal of Operations and Production Management*, Vol. 35, p. 110.
- Stone, J. and Rahimifard, S. (2018), "Resilience in agri-food supply chains: a critical analysis of the literature and synthesis of a novel framework", *Supply Chain Management: International Journal*, Vol. 23 No. 3, p. 207.
- Thürer, M., Tomašević, I., Stevenson, M., Blome, C., Melnyk, S., Chan, H.K. and Huang, G.Q. (2019), "A systematic review of China's belt and road initiative: implications for global supply chain management", *International Journal of Production Research*, Vol. 58 No. 8, pp. 2436-2453, doi: [10.1080/00207543.2019.1605225](https://doi.org/10.1080/00207543.2019.1605225).
- Tukamuhabwa, R.B., Stevenson, M., Busby, J. and Zorzini, M. (2015), "Supply chain resilience: definition, review and theoretical foundations for further study", *International Journal of Production Research*, Vol. 53 No. 18, p. 5592.
- Tukamuhabwa, B., Stevenson, M. and Busby, J. (2017), "Supply chain resilience in a developing country context: a case study on the interconnectedness of threats, strategies and outcomes", *Supply Chain Management: International Journal*, Vol. 22 No. 6, p. 486.
- Urciuoli, L., Mohanty, S., Hints, J. and Boekesteijn, E.G. (2014), "The resilience of energy supply chains: a multiple case study approach on oil and gas supply chains to Europe", *Supply Chain Management: International Journal*, Vol. 19 No. 1, p. 46.
- Vanpoucke, E. and Ellis, S. (2019), "Building supply-side resilience – a behavioural view", *International Journal of Operations and Production Management*, Vol. 40 No. 1, p. 11.
- Whybark, D.C., Melnyk, S.A., Day, J.M. and Davis, E. (2010), "Disaster relief supply chain management: new realities, management, challenges, emerging opportunities", *Decision Line*, Vol. 41 No. 3, p. 4.
- World Economic Forum (2013), "Building resilience in supply chains", available at: www3.weforum.org/docs/WEF_RRN_MO_BuildingResilienceSupplyChains_Report_2013.pdf (accessed 12 August 2020).
- Zhang, X., Song, H. and Huang, G. (2009), "Tourism supply chain management: a new research agenda", *Tourism Management*, Vol. 30, p. 345.

Further reading

- Chaturvedi, A. (2020), *COVID-19 Puts Curbs on Religious Travel*, E.T. Bureau, available at: <https://economictimes.indiatimes.com/news/politics-and-nation/covid-19-puts-curbs-on-religious-travel/articleshow/74742051.cms> (accessed 24 August 2020).
- Future Markets Insights (2020), "Religious tourism in Asia Pacific sector overview and analysis", Ongoing up to October 2020, available at: <https://www.futuremarketinsights.com/reports/religious-tourism-in-asia-pacific-sector-overview-and-analysis> (accessed 24 August 2020).
- Indian Tourism and Hospitality Industry Analysis, IBEF Report (2020), available at: <https://www.ibef.org/industry/indian-tourism-and-hospitality-industry-analysis-presentation> <https://zeenews.india.com/culture/puri-rath-yatra-2020-reason-behind-unfinished-hands-of-lord-jagannaths-idols-2294875.html> (accessed 10 August 2020).
- Manhas, P.S.D. and Balakrishnan Nair, B. (2020), "Strategic role of religious tourism in recuperating the Indian tourism sector post-covid-19", *International Journal of Religious Tourism and Pilgrimage*, Vol. 8 No. 7, pp. 52-66, Article 6, doi: [10.21427/ka25-fq52](https://doi.org/10.21427/ka25-fq52) (accessed 12 December 2020).
- Micheal, S. (2010), *Religion and Tourism-Crossroads, Destination and Encounters*, Routledge, Taylor & Francis Group, New York.
- Ministry of Health and Family Welfare, Government of India (2020), "SOP on preventive measures to contain spread of COVID-19 in religious places/places of worship", available at: <https://www.mohfw.gov.in/pdf/2SoPstobefollowedinReligiousPlaces.pdf> (accessed 24 August 2020).
- Ministry of Tourism, Government of India, Prasad cities, available at: <http://tourism.gov.in/search/node/prasad> (accessed 17 July 2020).
- Nayak, M. (2020), "Unlock 3: religious places in J-K to open from August 16, touching idols not allowed, going in line with the unlock 3 guidelines of the central government, the Jammu and Kashmir administration on Tuesday allowed religious places/ places of worship within the union territory", available at: <https://www.india.com/news/india/unlock-3-religious-places-in-j-k-to-open-from-aug-16-touching-idols-not-allowed-check-sops-4108720/> (accessed 24 August 2020).
- Negi, S. and Negi, G. (2020), "Framework to manage humanitarian logistics in disaster relief supply chain management in India", *International Journal of Emergency Services*, Vol. 10 No. 1, pp. 40-76, doi: [10.1108/IJES-02-2020-0005](https://doi.org/10.1108/IJES-02-2020-0005).
- O.T. Staff (2020), "The Sikkim government has closed the Nathu La Pass due to the coronavirus pandemic", available at: <https://www.outlookindia.com/outlooktraveller/travelnews/story/70217/kailash-mansarovar-yatra-cancelled-and-nathu-la-pass-closed-due-to-coronavirus> (accessed 24 August 2020).
- PTI (2020a), "Covid-19: will people visit religious places opening from Monday? Here's what survey reveals", available at: <https://www.financialexpress.com/lifestyle/covid-19-will-people-visit-religious-places-opening-from-monday-heres-what-survey-reveals/1983542/> (accessed 24 August 2020).
- PTI (2020b), "Covid-19: shrine board formulating SOPs for Vaishno Devi yatra", available at: <https://economictimes.indiatimes.com/news/politics-and-nation/shrine-board-formulating-sops-for-vaishno-devi-yatra/articleshow/75803238.cms?from=mdr> (accessed 24 August 2020).
- Rashid, O. (2020), "COVID-19 | Kanwar yatra deferred", available at: <https://www.thehindu.com/news/national/other-states/covid-19-kanwar-yatra-deferred/article31882342.ece> (accessed 24 August 2020).
- Suffian, M. (2020), "Rath yatra 2020 news: pulling of Lord Balabhadra's chariot Taladhwaja begins, Puri", available at: <https://www.indiatoday.in/india/story/jagannath-puri-rath-yatra-2020-live-updates-1691757-2020-06-23> (accessed 24 August 2020).

The New Indian Express (2020), "Lockdown 5.0: Uttarakhand to ease restrictions on religious tourism soon, Portals of the Char Dham shrines were opened but pilgrims are not allowed to travel to the shrines yet", available at: <https://www.newindianexpress.com/nation/2020/may/31/lockdown-50-uttarakhand-to-ease-restrictions-on-religious-tourism-soon-2150453.html> (accessed 24 August 2020).

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