Managing Disaster and Crisis in Tourism: A Critique of Research and a fresh Research Agenda

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Abstract

The paper critically reviews the research available on crisis and disaster management strategies for tourist destinations as published in tourism and travel related journals adopting a narrative analysis approach. A total of 74 research papers published on the subject in widely recognized top tier tourism and management journals, between January 2000 and September 2018, have all been incorporated into this study. The studies covered the various type of natural disasters and other events like terrorist attacks, pandemics and political upheaval. The study found the key themes including media sensitization, destination reputation and image, effectiveness and speedy response to a disaster and the importance of relationship marketing/collaboration and communication strategies etc are all critical after crises and disasters occur. Abundant opportunities exist to further expand the theory in this study area through future research and the construction of a theoretical framework, greater empirical exploration, and further discussion of the findings. The current review highlights the types and number of studies conducted in the Crisis Disaster Management (CDM) field and the lack of research on various facets of crises, and also disaster or post-disaster recovery for tourism destinations. The review ascertains ways to improve the speed and effectiveness of responses to a disaster, the significance of relationship marketing with loyal repeat customers and the need to speedily repair a destinations image after an event of cataclysmic proportions. Suggestions for future research, developed from the present study, incorporate the pressing need to support tourism operators to engage with crisis preparedness and disaster-management strategies and the significance of gaining a better comprehension of the customer response to disastrous events.

Keywords: Crisis, disaster, destination management, recovery, tourism marketing.

Introduction

In general terms, the tourism industry is a volatile and fragile sector, most affected by unfavorable events, whether natural like crises and disasters or human-made (Çakar, 2018; Park, Kim, & Choi, 2018; Pforr & Hosie, 2008). Tourism is incapable of recovering more promptly than other businesses because the attraction of a tourism destination resulting from its image can be demolished through a crisis and/or disaster (Avraham & Ketter, 2017; Cassedy, 1992). Furthermore, various tourism operators may be short of needed skills, capabilities and resources to recover quickly. These incidents can divert tourist flows from

a specific destination to other destination (Prideaux, Coghlan & Falco-Mammone, 2008) and also negatively influence the local community, tourism industry, and the tourists (Avraham & Ketter, 2017; Çakar, 2018). Thus, crises and disasters produce remarkable challenges for the survival and recovery of the tourism industry. Crises and disasters can be human-made as well as natural (Çakar, 2018; Park et al., 2018). "Crisis has been defined as "a low-probability, high-consequence event that develops very rapidly and involves ambiguous situations with unknown causes and effects" (Robert et al., 2007: 109). Standard features of crises may be internal, and thereby, the organization or destination has specific influence or power over them. Prideaux et al. (2003) refer to disaster as follows: "…can be described as an unpredictable catastrophic change that can normally be responded to only after the event, either by deploying contingency plans already in place or through reactive response" (2003: 478). Crises, as well as disasters, may be associated with internal faults intensifying disaster response and disasters.

In the tourism domain, scholars have identified models of disaster and crisis management, for example, a disaster planning model developed by Murphy and Bayley (1989) which consisted of four phases/stages including assessment, warning, impact, and recovery. Although many stages/phases of crisis management exist in the literature, more well-known and prevalent models were divided and summarized by Faulkner's (2001) model that includes six stages: pre-event, prodromal, emergency, intermediate, long term, and resolution. On the other hand, Hosie and Smith (2004) provided a crisis management model consisting of four stages – prevention, preparation, response, and recovery, which can be employed by various firms at local and national levels. Huang et al. (2008) and Henderson (2003) dealt with crises and disaster management by providing three-stage models, including pre (planning), during (response), and post-crisis (recovery). Orchiston (2012) offered a seismic risk scenario planning approach or model that integrates sustainable tourism strategies with the natural emergency planning process. In tourism, Paraskevas and Altinay (2013) underlined the four-phase/stage model of crisis management as the initial phase/stage includes *a post-crisis response* that focuses on to mitigate the adverse effects of the disaster. The next phase/stage concentrates on recovery facets of crisis management. *The pre-crisis phase* is the third stage, indicating how hospitality organizations, as well as tourism stakeholders (public & private sectors), can gather lessons from destructive results of past crises to be prepared for future. The final phase provides a holistic view, containing integrated strategies, frameworks and models, that offer extensive knowledge of past crises/disaster management. Mair et al.'s (2014) crisis and disaster management model includes three key stages: planning, responding, and post-crisis resolution to crisis and disaster. Therefore, it is necessary to build deliberate strategies that entail all stakeholders as long-standing strategic planning partners so as to make sure the sustainability of specific tourism destination/s happens (Gustafsson et al., 2014). Recently, Çakar (2018) identified a *critical success factors* (CSF) model for efficient destination governance during crisis and disaster times which indicates the CSFs of strategy formation, shared roles, responsiveness, and collaboration for successful crisis and disaster management (CDM).

Crises and disaster management is essential to improve recovery time and decrease the impact at the destination and at organizational levels. Most of the research on CDM in tourism seems to be associated with the stage of crisis and disaster response and recovery (Khazai, Mahdavian & Platt, 2018; Avraham & Ketter, 2017; Mair et al., 2014). Disaster recovery includes the implementation and development of actions and strategies to take the tourist attraction to its routine or pre-event state and/or a better condition. Disaster recovery can start immediately after the crisis and disaster, or it can be deferred until a destination is

capable of assuming recovery attempts. A better condition can be likely due to crisis/disaster which then leads to the development of policies in government for tourism. Similarly, stakeholders may collaborate in adversity, forming secure collaborative networks, and new products and services can also be improved. The tourism and disaster management in many areas has been on the agenda of research and activism for decades, but research on the management of tourist destinations during crisis and disasters has been mostly overlooked. The available literature on tourism crisis and disaster has been far less prolific, is disjointed and often fragmented. So far, no comprehensive and scientific review of crisis and disaster management (CDM) is available in tourism-related literature. The present paper aims at filling up this gap in research. It attempts to critically review the research available on CDM for tourist destinations, published in tourism and related journals, adopting a narrative synthesis approach.

The Study

In accordance with Reid and Andereck (1989: 21) *"academic journals constitute an indicator of the direction of research in a field"*. It is also suggested that to measure the maturity of rising research is dependent upon the emergent research literature (Van Doren et al., 1994). Various authors have suggested that there are few studies on the CDM in tourism especially in the post-disaster recovery, marketing field (Han & Waugh, 2017). As Pforr and Hosie (2008) claim, despite growing knowledge in the subject, tourism CDM literature seems to be disjointed and fragmented. These authors also suggested that CDM literature lacks any clear indication of the nature and directions for future research. Presently we then possess a destitute knowledge of how the research has been undertaken and what research has been conducted.

To answer to such queries by using a systematic literature review of CDM in tourism related journals, is essential, so as to ascertain gaps and directions for future research, therefore this is the justification for the present article. This paper recapitulates the systematic review findings of crisis and management literature in tourist destination settings which is published in tourism and related journals. The focus of the present study was mainly to attempt to maximize potential opportunities and minimize damages in disaster or crisis, and to work towards a resolution, preferably leading to a better condition, during or after the disaster/crisis is over. This concerns tourism, which usually incorporates recovery marketing efforts and crisis/disaster communication to rebuild or restructure customer belief, and to attract markets back to the tourism destination or businesses. Such a review is also necessary for several other reasons such as despite the reputation of crisis and disaster in management research over the previous several decades, we are still uninformed of a review of this type of literature. Although various reviews of the general theory have been provided (Henderson, 2003, Huang et al., 2008; Faulkner; 2001), still no comprehensive literature review on tourism crisis and/or disaster management literature exists.

The present study identifies that the tourism management field has made essential contributions to extending and testing crisis and disaster management, and that sufficient opportunities exist to further expand the theory via future research through an empirical investigation, theoretical framing and discussion of findings. This paper recapitulates the systematic review findings of CDM or recovery literature in tourist destination settings, as published in tourism and related journals employing a narrative synthesis method. The focus of the present review was mainly an attempt to maximize potential opportunities and

minimize damage in disaster or crisis situations and to work towards a resolution, preferably better conditions, during and after the disaster/crisis is over. This study in the tourism field assumes significance, as it usually incorporates recovery marketing efforts and crisis/disaster communication to rebuild or restructure customer belief and to attract markets back to the tourism destination or businesses.

Methodology

A systematic review approach was adopted in order to review the existing literature in tourism disaster and crisis field in the present study. Denyer and Tranfield (2009: 671) defines systematic review as "a specific methodology that locates existing studies, selects and evaluates contributions, analyses and synthesizes data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known". As the data for the current review combines quantitative and qualitative research, pure quantitative data examination is not suitable. Furthermore, the present review does not set out to evaluate all literature recorded on crisis/disaster management and tourism recovery, but rather to enhance our understanding in particular areas of tourism destination, crises, disaster or post-disaster recovery. A narrative synthesis approach, incorporating a thematic analysis, has been adopted in the present review. Narrative synthesis refers to "an approach to the systematic review and synthesis of findings from multiple studies that rely primarily on the use of words and text to summarize and explain the findings of the synthesis" (Popay et al., 2006: 5). Narrative synthesis thereby facilitates the synthesis of quantitative and qualitative evidence drawn from various studies.

The present review generated an extensive database of management, tourism, and hospitality journal papers published from January 2000 to September 2018 on crises, disaster, post-disaster recovery. These dates were selected to lay down the finite boundaries for review, with the beginning year of 2000 signifying the start of the new millennium. Various search terms employed included "Destinations and Disaster", "Tourism and Crises", "tourism and disaster", and "post-disaster and tourism". Most of the papers under review have been published in journals concentrating on tourism; though few papers have been obtained from hospitality journals, if the focal point of paper related to tourism destination recovery. Several sources have been employed to search for papers, incorporating the EBSCO database, Business Source Complete and Google Scholar. Use of these resources and databases helped to look for published not only studies, but also papers recorded on journal websites as "in press". The book chapters, conference papers, and industry reports have not been incorporated in the current review. All the research material was been taken from published journal papers, which is available to any other scholar willing to investigate the subject further, or look for alternative interpretations.

Data analysis

Mays et al. (2005) identified three critical steps in performing the narrative synthesis like developing a preliminary synthesis of findings of studies followed by determining the association between the findings and further measuring on the robustness of the synthesis produced.

Preliminary synthesis employed a *Microsoft access database* that facilitated the data exploration and creation of various figures and tables to illustrate the critical issues under review. It was followed by identifying the relationship between the findings of various studies employing open coding. Due to this procedure, "one's own and other assumptions regarding

the phenomenon under investigation lead in turn, to discoveries" (Strauss & Corbin, 1990: 62). Data was coded as per the themes obtained from new data. Further coding "frames" the inquiry at the start of data collection, providing "leads to pursue" (Charmaz, 1995: 39). Moreover, coding helps to create the categories for research data (Charmaz, 1995) and provides the basis of an informed analysis (Miles & Huberman, 1994). Thus, the coding process was refined and reviewed before the final analysis. In the end, an evaluation of the strength of the synthesis offered was prepared. The effectiveness of the synthesis would rely on quantity as well as the quality of the evidence base it was built on (Popay et al., 2006). As the current review was based on academic journal papers which have undertaken a double-blind peer review process between 2000 and 2018, it is thus suggested that this indicates an excellent sample of the best quality research on crisis/disaster available and dealing with tourism destinations.

Summary of Findings

The findings of the present systematic review have been discussed in four major sections. The first section presents the quantitative information comprising of methodological and theoretical approaches. Second, identification of key themes and recording of the same. Furthermore, the distilling of main recommendations and suggested actions is easier this way. Finally, the future research agenda which emerged during this review was worked out.

Profile of the Studies Reviewed

Overall, 74 journal research papers that cover crises, disaster and post-disaster recovery within tourism were identified. Table 1 indicates that concerning journals which have published papers concerning the Crisis & Disaster management (CDM), and pre and/or post-disaster recovery, particularly in a tourism setting. The Travel and Tourism Marketing Journal has published the most papers so far, partially because of its 2008 special issue, followed by the Tourism Management Journal. This shows that several papers published on the theme have emerged in highly respected journals, contributing significantly to the existing knowledge of the field.

Table 1: Journals Covered in the Study

Journals	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Journal of Travel & Tourism Marketing	35				6	6			19		1		1			
Tourism Management	18	1	2		1		1	1	1	1	2	2	3	2		1
Journal of Vacation Marketing	4		2	1	1											
Current Issues in Tourism	3								1						1	
Annals of Tourism Research	3											2	1			
Tourism and Hospitality	2					1		1								

	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014	2015	2016	2017	2018
Planning and Development																				
Journal of China Tourism Research	1												1							
Journal of Travel Research	1								1											
International Journal of Hospitality & Tourism Administration	1		1																	
Tourism Management Perspectives	1																			
Journal of Sustainable Tourism	1								1											
International Journal of Disaster Risk Reduction	1																			
Tourism and Hospitality Research	1								1											
Tourism Review International	1							1												
Journal of Hospitality and Tourism Management	1																			
Total	74	1	5	1	8	7	2	3	23	2	3		4	5	2	1	1			

Table 1: Journals Covered in the Study

Table 2 investigates various types of crises and disasters which have been covered by the papers in the current review. Though nine research papers have been written regarding crises and disasters in general, the rest of the articles focused on a series of unfortunate events or calamitous disaster events. Most of the researchers have identified a growing number of crises and disasters which impacted upon tourism-related industries, varying from natural to human-affected events involving political instability, terrorist attacks, economic recession, natural disasters and bio-security threats.

Type of Disaster/ Crises	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014	2015	2016	2017	2018
Terrorist attack	11		1		4	2			4											
Not specified	11				1		1		4					3				1	1	
Various	9					2	1		3						1	1				1
Tsunami	8					1			3				2	1	1					
Earthquake	7		1						1	2	1		2							

Type	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bushfire	5							1	2		1		1						
Pandemic	4			1		1			1		1								
Economic	4		1				2						1						
Cyclone	3								1									1	1
Hurricane	3								2										1
Foot and mouth	3		1		2														
Political crisis	2		1												1				
Flood	1	1																	
Pollution	1				1														
Shipping accident	1								1										
Avalanche	1					1													
Total	**74**	**1**	**5**	**1**	**8**	**7**	**2**	**3**	**23**	**2**	**3**	**4**	**6**	**2**	**1**	**1**	**1**	**2**	**3**

Table 2: Types of Crisis and Disasters Covered

Table 3 identified the place and type of disasters covered in this review and exhibited the tourism destinations, which set the context for research incorporated in the current review. It indicated that while few publications did not concentrate on any specific crisis/disaster, as documented earlier, few events have been covered by many papers, specifically earthquakes in Taiwan, bushfires in Australia, and terrorist attacks in the USA. The most common themes covered include terrorist attacks (9/11, London bombing and Bali Bombing of 2005), bushfires (Australia and Canada), and earthquakes (Taiwan). In 2004, the Boxing Day Tsunami was also the prominent them of papers in the present review, touching earthquakes and resulting tsunami in Japan.

Place	Type of Disaster	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Not specified	Not specified	6				1		1		3										1
Taiwan	Earthquake	4		1							1	1	1							
UK	Various	4					1			1								1		1
USA	Terrorist attack	4		1		1	1			1										
Australia	Bushfire	3							1			1		1						
UK	Foot and mouth	3		1		2														
Thailand	Tsunami	3								1			2							
Various	Various	3					1								1	1				
Australia	Cyclone	2								1									1	
China	Earthquake	2									1		1							
Malaysia	Economic	2						2												
New Orleans	Hurricane	2								2										
Not specified	Various	2													1	1				
Australia	Flood	1	1																	
Australia	Not specified	1												1						
Australia	Terrorist attack	1				1														
Austria	Avalanche	1					1													
Australia	Various	1						1												
Brazil	Pollution	1				1														

Place	Type																			
Japan	Tsunami	1												1						
Canada	Bushfire	1								1										
Greece	Shipping accident	1								1										
China	Pandemic	1		1																
Hong Kong	Terrorist attack	1				1														
Hong Kong	Pandemic	1					1													
Ireland	Economic	1												1						
Indonesia	Terrorist attack	1								1										
Ireland	Terrorist attack	1								1										
Canada	Terrorist attack	1					1													
Israel and Jordan	Political	1		1																
China	Political	1														1				
Malaysia	Tsunami	1					1													
Macau	Various	1								1										
Maldives	Tsunami	1								1										
Malaysia	Not specified	1												1						
Not specified	Tsunami	1								1										
Not specified	Pandemic	1								1										
South East Asia	Economic	1		1																
South East Asia	Pandemic	1										1		.						
UK	Cyclone	1															1			
UK	Hurricane	1																		1
Various	Political	1														1				
New Zealand	Not specified	1															1			
Turkey	Various	1																		1
Asia	Various	1															1			
Thailand	Tsunami	1													1					
Philippines	Cyclone	1																		1
	Total	74	1	5	1	7	7	2	3	17	2	3	4	5	3	3	1	2	3	5

Table 3: Places with Types of Disaster Covered

Table 4 presents the research methods used in the studies under review. Qualitative research methods dominated in the present research area, with 25 of 74 studies using qualitative approaches. The qualitative studies were undertaken exclusively within tourism sector and government stakeholders like DMOs, emergency personnel and operators (Anderson, 2006; Armstrong & Ritchie, 2008; Ciocco & Michael, 2007; Faulkner & Vikulov, 2001; Ghaderi et al., 2012; Niininen & Gatsou, 2008; Peters & Pikkemaat, 2005). The interview method was the most common method employed in qualitative research studies followed by qualitative content analysis of literature reviewed and secondary data. The questionnaire was the most prevalent form of data collection and analysis, with the majority of studies aimed at actual or potential customers (Prideaux et al., 2008; Rittichainuwat, 2011; Walters & Mair, 2012). Various studies have employed the interview methods, and most commonly used were semi-structured interviews, and very few used focus groups

(Walters & Clulow, 2010). Certain studies included resident responses and perceptions of tourism disasters destinations (McKercher & Pine, 2005; Moreira, 2008).

Quantitative studies also played a significant role with 17 studies using a statistical approach. Among quantitative journal articles, which underline tourism crises and/or disasters, various econometric and economic analyses models were used consisting of time series data (e.g. Huang & Min, 2002), secondary analysis of economic data (Wang, 2009), and economic forecasting models (Eugeno-Martin et al., 2005). A mixed method approach was adopted in

 six studies (Carlsen & Hughes, 2008; Wang & Ritchie, 2012).

Researchers used only a few innovative research techniques, for instance, following bushfires in Australia Ciocco and Michael (2007) adopted a narrative analysis to examine how tourism operators were proficient to recover their business while Carlsen and Liburd (2008) included the group discussion method employing nominal group techniques and group problem-solving processes. Secondary data sources and content analysis of extant literature are somewhat familiar research methods, sometimes employed in combination with other data collection methods like participant observation or interviews (Armstrong & Ritchie, 2008; Carlsen & Liburd, 2008), and sometimes they are used separately (Laws & Prideaux, 2005; Scott & Laws, 2008; Volo, 2008).

The case study was a standard method in examining crises or disasters, with seven case studies identified in the current review. There have also been some examples of conceptual and/or theory building based papers and simple literature reviews. Some studies employed experimental research to establish efficient tourism recovery marketing strategies and their effective content prior to execution. To our best knowledge, no article employed Visual Analysis Techniques that could be specifically vital in understanding image formation and risk perceptions.

Type of Disaster	Total	Case studies	Conceptual Studies	Mixed Methods	Qualitative Methods	Quantitative Methods	Secondary Data analysis	Theoretical Reviews
Terrorist attack	11	2			3	5	1	
Various	11	1	1		3	5	1	
Not specified	8		3		3	1		1
Tsunami	8			5		2	1	
Earthquake	7	2	1		1	2		1
Bushfire	5			1	3	1		
Pandemic	4				1	2	1	
Economic	4				4			
Cyclone	3			2	1			
Hurricane	3	1			1	1		
Foot and mouth	3				2		1	
Political	3		2				1	
Shipping accident	1				1			

Pollution	1	1					
Avalanche	1				1			
Flood	1				1			
Total	74	7	7	8	25	19	6	2

Table 4: Research Methods Used

Main Themes Covered

This section covers the key themes which have emerged from the process of coding. This review identified nine key themes which were common among many studies presented in Table 5 and these are further analyzed below.

Themes	Total	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Marketing Strategies	12	1			2	1			3				2					1	2
Preparedness for Disaster Management	12				1		1		3	1	1		2	1					1	1
The Media	11		1			1		2	2		1		2						1	1
Tourist behavior	10				1	3			3	1	1		1							
Communication	9				1	1	1	1	3				1							1
Responsiveness	8				1	1			2	1	1				1					1
Destination Image and Reputation	6				1				3		1								1	
Strategy formation	3								1									1		1
Collaboration	3								1									1		1
Total	74	1	1	0	6	8	2	3	21	3	5	0	8	1	1	0	2	4	8

Table 5: Main Themes Covered

- **Marketing Strategies**

The literature review has identified that in various cases, scholars noted a lack of emergency management plans or formal crisis (Avraham & Ketter, 2017; Çakar, 2018). Prideaux (2004) claimed that any kind of contingency planning not includes normal operating agenda of several tourism firms. The same is repeated by Ritchie (2008) who speaks about a *Reactive Mindset*. Following a number of earthquakes in Taiwan, local hotel providers ultimately developed CDM strategies, although this was a reaction to disaster, compared to being viewed as a proactive decision (Tsai & Chen, 2010). Beirman (2002) also highlighted the

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need for a proactive strategy. Such a lack of planning is obvious not only at individual operator level but also at DMO or local levels (Ghaderi et al., 2012; Ritchie et al., 2004) and also at the level of national and international (Volo, 2008). However, Henderson (2002), remarks that several formal CDM plans put stress on individual firms and says that they are not thereby directly relevant to National Tourism Organizations/NTOs, and thus suggests that particular national and regional crisis management planning is needed. Similarly Kaklauskas, et al (2009), suggested that there is an urgent need to incorporate disaster management and share it in the macro and micro environments and thus, with all the stakeholders. Research anticipated that safe and traditional travel markets can be the focal point of emergency marketing plans (Wayne & Carmichael, 2005). Faulkner and Vikulov (2001) also propose that disaster planning needs to emphasize positive changes and abolish unfavorable changes created by a disaster. Rittichainuwat (2013) in research on tsunamis and earthquakes in Japan pointed out the significance of infrastructure measures to diminish risk during crisis, comprising adequate traffic-management plans and tsunami warning systems for emergency evacuations. DMOs and NTOs are required to aid stakeholders in developing readiness and reduction strategies and emphasize a pressing need to identify any possible obstacles and suitable facilitators of tourism disaster planning (Ritchie, 2008). Prior models or frameworks of CDM offer a foundation for better understanding of crises/disaster in tourism contexts (Henderson, 2002). To our best knowledge, gaps still exists as per this review. Particular fields in which future research is required involve the opinions and attitudes of tourism destination operators and their intent to undertake tourism-crisis planning (Wang & Ritchie, 2012). Thus, in seeking to be encouraging SMEs this includes a considerable proportion of the tourism sector needs to assume activities to cultivate their resilience in CDM.

- **Preparedness for Disaster Management**

The literature review has noted a lack of formal crisis or emergency management plans (Avraham & Ketter, 2017; Çakar, 2018). There is a noticeable absence of a standard operating framework of many tourism business pertaining to contingency planning (Prideaux, 2004). Due to a series of earthquake events the local hoteliers finally developed disaster management plans (Tsai & Chen, 2010) as a proactive decision which was also earlier supported by Beirman (2002). It has also been seen that the lack of planning is not only at the individual operator level, but also in many cases at the national and international levels (Ghaderi et al., 2012; Volo, 2008). This point is reinforced by Kaklauskas et al. (2009) who suggested that there is an urgent need to incorporate disaster management, including at the macro and the micro environment levels and with all the stakeholders. Wayne and Carmichael (2005) proposed that regulated and traditional travel markets should be the focal point of emergency marketing plans. Further, Faulkner and Vikulov (2001) also suggested that a disaster planning regime needs to reinforce positive changes and nullify the adverse changes created by a disaster. Rittichainuwat (2013), in his research on tsunamis and earthquakes in Japan, pointed out the significance of infrastructure measures to diminish risk during the crisis, comprising adequate traffic-management plans and tsunami warning systems for emergency evacuations. DMOs and NTOs are required to aid all stakeholders in developing readiness and reduction strategies and emphasize a pressing need to identify any possible obstacles and the use of suitable facilitators of tourism disaster planning (Ritchie, 2008). Prior models or frameworks of CDM offer a foundation for better understanding of crises/disaster in tourism contexts (Henderson, 2002). To our best knowledge, gaps still exist as per this review. Particular fields in which future research is required are similar to the aforementioned and involve the opinions and attitudes of tourism

destination operators and their intents to undertake tourism-crisis planning (Wang & Ritchie, 2012). Thus, encouraging SMEs that include a considerable proportion of the tourism sector to assume activities through which they can cultivate their resilience.

- **The Media**

Table 5 indicates that the media has been covered 11 times in the literature review, which highlights the importance of media in disaster and crisis management. While media reporting during disasters, tourism marketers, are required to operate carefully with all the media authorities in order to ascertain the validity of any information shared with the tourism destination market and remain non-sensationalizing and factual. Thus tourism businesses need to instruct the media on how influential their coverage could be when it comes to the decease of a destination brands image. Tourist managers can also work in developing mutual relationships with the media in disaster preparedness and recovery stages to confirm the media is aware of this in their report formation (Wahlberg & Sjoberg, 2000). While the significance of media as a way of offering timely and accurate information has been acknowledged, there exists much criticism about media, both its negativity and desire for sensationalism. For example, sensationalism can happen when a disaster hits, as media statements initially are most informative, but when the time passes media needs to establish a story in retaining the interest of the (Frisby, 2002; Park et al., 2018). In the case of New Orleans following Hurricane Katrina, media sensationalism had a destructive impact on tourism/travel sector (Pearlman & Melnik, 2008).

The research study of Ghaderi et al. (2012) assumed that the media had exaggerated the extent and the harmfulness of crises and ignored the post-crisis period, thereby failing to assist in rebuilding confidence in a disaster-affected region in Malaysia. Therefore, media monitoring can be a vital element of any crisis recovery plan, which helps tourism attractions to offset any negative publicity to preserve destination reputation and image (Huang et al., 2008; Park et al., 2018), although, the likely positive influence of media in disaster and instant post-disaster stages has been documented by many studies in tourism. For example, Ciocco and Michael's (2007) study in Australia following devastating bushfires claimed that the media reporting helped to accelerate the distribution of municipal and state funds to improve and replace tourism destination infrastructure. Further spreading positive news stories may be useful to offset any negative publicity instigated by mass-media (Chacko & Marcell, 2008).

The research suggested that best managerial performance should be highlighted and reported in media reports, which can assist in developing trust in tourism destinations (Tsai & Chen, 2010). Avraham and Ketter (2017) examined how Asian countries employing different media strategies, concentrating on a source of the message, the message itself and target audience to generate positive images, can inhibit negative images and increase tourism during and following a crisis/disaster. The Internet is the most important and accessible tool for seeking information and communication regarding disastrous regions (Park et al., 2018; Peters & Pikkemaat, 2005). Furthermore, by using social media platforms by news organizations, destination marketing organizations, and the general public provide more intricacy to the idea of media monitoring. The specific field has not gained any major empirical research boost yet and thereby provides significant future research opportunities.

- **Tourist Behavior**

The theme related to tourist behavior has been the subject of research in 10 studies during the period under review (Table 5). Various studies provided suggestions for positive and constructive actions that tourism attractions/destinations can take such as engagement with the travel trade and taking speedy actions and the use of relationship marketing strategies. Concerning tourist behavior and the tourists who respond more often to post-disaster marketing messages, research studies indicate that loyal tourists, i.e. tourists who visited many times before, are expected amongst the first ones to revisit (Mair et al., 2014; Walters & Clulow, 2010). McKercher and Pine (2005) concluded that tourism firms should display "Welcome Back" messages, to thank visitors for revisiting their areas and thus strive keep the goodwill of repeat tourists. This underlines the significance of relationship marketing in tourism destination contexts. Destinations marketers can concentrate on maintaining and developing long-term relationships with customers during the best times in order to focus on communications following a disaster.

Tourists, staying at a tourism destination or planning to visit, are influenced by crisis and disasters. Tourists' present at the time of disaster are at significant risk, because of the absence of local knowledge on how to respond to the danger (e.g. Ritchie, 2008). The main issues for tourist destinations are related to changes in the behavior of those tourists who are planning a visit. The focal issues of visitors, as expected, are the risks associated with visiting a place where a disaster has taken place. When visitors observe that there are so many physical risks involved while travelling a tourism destination, it looks apparent that they would suspend their travel plans (Wang, 2009). At this phase, the physical risk becomes less of a concern than safety, health, social risk, and travel experience risk being under the expectations (Floyd et al., 2004). Last minute bookings (Hystad & Keller, 2008), more cancellations (Huang & Min, 2002), and more self-drive visiting family and friends trips (e.g. Fall & Massey, 2005) have all emerged as likely changes in behavior following a disaster. Wayne and Carmichael (2005) suggested that various tourists will not permanently suspend their holidays, but instead will change their trip plans. Eugeno-Martin, Sinclair and Yeoman (2005) asserted that visitors from different countries respond to disasters differently; signifying that identifying and understanding the most risk-averse nationalities can facilitate the improvement of the target segment for post-disaster recovery campaigns.

In the context of tourism (Australian bushfire), research recommends that a disastrous incident does not necessarily affect the behaviors and views of those who exhibit loyalty towards a destination. Research studies determine that visitors who frequently visited a place, which was affected by a disaster were expected to revisit more than those who were infrequent tourists, signifying that repeat/loyal customers are a key target segment for destination marketing organizations, and that relationship marketing plays a crucial role to persuade the loyal customers to revisit (Mair et al., 2014; Walters & Mair, 2012). Indeed, the loyal customers can be inspired to revisit to facilitate recovery efforts and could thus be the primary market segment to return towards a disaster influenced destination (Walters & Clulow, 2010).

In many contexts, many visitors have proved to be not or less satisfied with their travel (Prideaux et al., 2008). In some instances, any preliminary ambiguity about travel intentions has less or no impact on actual travel participation rates after some months (McKercher & Hui, 2004). Prideaux et al. (2008) recommend that post-disaster visitation data are helpful to identify behaviors, expectations and perceptions of tourists. Even though there still exists a difference between intention and actual behavior (McKercher & Hui, 2004). These various

kinds of issues require greater investigation and further research , if we are to entirely understand post-disaster tourist behavior.

- **Communication**

Regarding communication, it is a vital factor underlined in the present review, and due to that, collaboration and knowledge sharing in the tourism industry remains important (Mistilis & Sheldon, 2006). The theme of "communication" has been revealed nine times in the reviewed literature. Communication is a significant challenge in managing crises and/or disaster as it may mitigate or exacerbate the influence of an unfavorable condition (Park et al., 2018). There is consent among industry administrators that communication acts as a critical element in tourism CDM (Park et al., 2018). Problems identified during this survey include the lack of communication with the tourism market, with stakeholders and the general public. Three central areas where communication plays an important role include communication from destination to the tourism market, communication between tourism stakeholders, and communication from emergency managers to stakeholders. Hystad and Keller (2008) emphasized the significance of getting updated and accurate information from the emergency managers for individual businesses and organisations in tourism to use.

Similarly, research also highlighted the need for effective partnerships to assist crisis/disaster communications (Wayne & Carmichael, 2005). Furthermore, Anderson (2006) suggested that personnel and staff members of an organization need support like accurate, correct and timely information in the times of crisis/disaster. Communication with tourists is also vital in the shape of providing guidance and information to customers at a tourism destination during the crisis or disaster. Traditional communication or (one-to-many and top-down communication) about the crisis and disaster was mostly through traditional media like radio, newspapers, TV, and magazines (Park et al., 2018). Although the increased usage and development of social media platforms have transformed the crisis or disaster communication landscape, individuals are not the only audience for crisis/disaster information but also actively offer and share crisis or disaster preparedness, response, and recovery-information (Park et al., 2018). Jiang and Ritchie (2017) suggest that efficient communication leads to the most resilient community due to creating integrated networks and partnerships among many stakeholder groups. Research in crisis/disaster recovery remains relatively an ignored area of research and our comprehension of the communications which occur between customers and stakeholders in crisis/disaster is limited. Various intervening factors that reduce effective communication with foreign visitors, including lack of familiarity towards local emergency evacuation processes, disorientation, and language barriers were found.

Responsiveness

Responsiveness emerged as a critical issue in the present study, as it was covered eight times in the studies under review (Table 5). In the central theme of "responsiveness", preparedness and readiness have been established as crucial aspects for tourism destination governance during crisis/disaster times. It was found that because of the existing governance structure, the central government is supposed to be the vital actor in establishing strategies and policies to exclude the remaining players. As this method creates an absence of adequate planning, usually local players fail to prepare efficient management practices and policies in responding to crises/disaster (Çakar, 2018). Literature also showed that the uneven power distribution amongst actors/stakeholders

generates a lack of collaborative initiatives in developing and determining successful CDM strategies in attaining enduring objectives and goals (Çakar, 2018).

Furthermore, the literature advocates that the extant crisis management plans and strategies were inadequate, involving contingency approaches or mundane remedies employing reactive strategies compared to the proactive strategies that are in essence needed by the tourism sector in the times of crisis (Beritelli & Bieger, 2014). The stakeholders believe that their responsiveness with the crises/disasters is inadequate because of the lack of leadership and vision, absence of interaction, therefore, obstructed the formation of successful CDM strategies and policies. These findings are coherent with and supported by earlier research (Beritelli & Bieger, 2014).

- **Destination Image and Reputation**

Destination image and reputation have been covered six times in the studies under current review (Table 5). The long-term damage which happens in restoring the destination image and reputation as intangibles are difficult to be corrected. For instance, in one of the studies about the pollution crisis in Brazil, Santana (2004) identified that the crisis had been evolving from a substantive issue like environmental pollution and was made into an intangible issue like image and reputation. Avraham and Ketter (2017) reported that to combat negative perceptions, stereotypes, and crises for repairing destination images and bringing back visitors, the Asian officials and marketers used the "multi-step model for altering place image", that provided three different kinds of strategies (source, message, and audience) to use so as to restore a destination's negative image during and after a crisis. Niininen and Gatsou (2008) revealed that disastrous events negatively influence the destination image as well as the operators and businesses involved. Post-disaster surveys have reported a collapse in customer confidence towards a destination.

(McKercher & Pine, 2005) and substantial changes in tourism destination image that potential tourists hold (Pearlman & Melnik, 2008). Disaster marketing strategies require to concentrate on correcting and improve the destination image of a disaster influenced city (Pearlman & Melnik's, 2008). Destination images of individuals who are distant from the affected city have been more favorable than people living near the city, indicating that the distance is a vital element in developing destination image. For example, Walters & Clulow (2010) establish that proximity is expected to affect the visitor's perceptions of disaster-impacted destination. There may be steady progress in tourist perception about the negative image of a destination (Pearlman & Melnik, 2008). The destination which reacts speedily to minimize or prevent reputational damage can be least influenced than the destination that is not capable of preventing negative destination image. As per Henderson (2008), these strategies can incorporate transmitting positive destination images after the disaster and/or possibly emphasizing community solidarity or concentrating on parts which remain unaffected.

Past researchers indicate that long-standing difficulties for tourism attractions hit by disaster lie in the rebuilding of the destination's reputation and image. Public relationship activities like travel media representatives visits and/or familiarization visits for the travel trade could be an essential constituent of a tourism destination recovery strategy. For example, in the case of the Boxing Day Tsunami, destination marketing organizations in the Maldives invited more than 1000 media representatives and wholesalers to visit and be familiarized

with developments via their trips (Carlsen & Hughes, 2008). Such a strategy was also used in New York following the 9/11 attacks (Floyd et al., 2004). Similarly, this strategy has been used after earthquakes in Taiwan (Huang et al., 2008). To promote tourist destinations in such a manner can facilitate positive media coverage, editorials, and also helps to make sure that touristic place remains part of a wholesaler's offerings. This can help avoid cancellations, as positive word-of-mouth starts to spread.

- **Strategy Formation**

Linking with the responsiveness and communication theme, strategy formation has emerged as a critical subject in the current review. Table 5 reflects that the strategy formation issue/theme has been covered three times in the reviewed literature. Concerning the issues of pre-set and pre-determined strategies in return to challenges which may likely take place; it is evident that the stakeholders/actors remain unprepared in facing crises/disasters effectively. On the strategy formation theme, reactive as well as proactive approaches have been encountered. On the whole, the literature suggests that crisis responses are just reactive as compared to being pre-determined, because there is no pre-determined efficient strategy in response to possible crisis/disaster incidents. Strategic plans are somewhat emergent and contingent. Relatedly, crisis or disaster management strategies are used at tourism destinations only when crucial incidents happen (e.g. Ritchie, 2008). However, an understanding of CDM strategies of interrelated stakeholders/actors have been reinforced due to prior experiences; It remains insufficient in dealing with crisis/disaster incidents and to expose the city/ destination to their negative consequences (Cakar, 2018).

- **Collaboration**

Collaboration is described as a process via which to solve problems, and other issues as well as to attain common benefits and interests of actors/stakeholders (Jiang & Ritchie, 2017). Table 5 shows that the collaboration theme has been reflected upon three times in the literature reviewed in this study. In the CDM context, collaboration involves a partnership of all the stakeholders; comprising private and public actors (like groups, individuals, or organizations) at tourism destination level (Cakar, 2018). Literature suggests that in developing a successful CDM strategy, state public groups are more authoritative and influential than others. Extant problems in terms of a lack of cooperation and coordination amongst actors prohibit stakeholders from building essential CDM strategies (Jiang & Rtichie, 2017). The literature review also suggests that there is a lack of pro-active strategies to be employed before a crisis or disasters. The presence of these strategies is noted, and these strategies can be executed by key tourism stakeholders (groups, individuals, or organizations, which will involve close cooperation and collaborative initiatives amongst the local actors. Jiang and Rtichie (2017) recognized four main themes for collaborative disaster management including, improved network and relationships, financial support, information and capability sharing, and ultimately attaining effective outcomes through effective coordination.

Few stakeholders have greater interest but little power, hence, an empowerment strategy is needed for weaker stakeholders (Jiang & Ritchie, 2017). Providing sustainable tourism actions dealing with efficient CDM should be considered, and this is the most feasible way by offering pro-active strategies compared to reactive strategies. To understand this purpose, all the stakeholders may often collaborate to discuss such concerns. In response to future challenges, stakeholders/actors require to be involved in all the stages, particularly

in the development of prearranged strategies compared to new strategies. Furthermore, unique coordination units' needs to be there and their management, control, and coordination activities should be individually authorized by private as well as public led actors to offer an efficient response during crisis or disaster. Furthermore, the significance of cooperative and collaboration methods to tourism destination recovery has been emphasized as an essential approach. From the perspective of CDM, it has been recognized by several linked studies that the speedy disaster response is essential for supporting the destination recovery process (Mao, Ding & Lee, 2010).

Gaps in the Existing Research and Fresh Research Agenda

The present research has given an idea about a lack of research in the field of disaster and crisis strategies despite increasing knowledge in the subject of disaster and crisis over many years. Most of the reviewed papers covered the themes of preparedness for disaster management and marketing strategies followed by media, tourist behavior, responsiveness, communication, destination image and reputation, strategy formation and collaboration, respectively. There are certain issues which were unexplored, inter-alia, like identifying the audience, effective communication strategies during crisis and disaster, and various challenges of creating and spreading the constant secure messages.

The experiences or messages of those stakeholders and their sharing of these may be useful to the broader tourism and travel industry who have either faced or work in the difficult situations in crisis and disaster areas and learnt a lot from these (Ciocco & Michael, 2007).

Researchers have suggested that developing effective partnerships and conducting more consultations with various stakeholders (Hystad & Keller, 2008; Wayne & Carmichael, 2005) helps in recovery of the destination. The recovery takes a longer period than estimated and sustaining collaborations, and networks would aid this process. It seems that more research is required in investigating the most efficient approaches of knowledge sharing regarding crises or disasters and the suitable means to deal with them (Laws & Prideaux, 2005). Research is thus required to examine suitable communication channels and messages for various stakeholders because of their differences. In crises or disaster communication, social media networks may be specifically crucial (Yates & Paquette, 2011). It has also been considered that consumers are more authentic, credible, and interactive during recovery marketing phases (Schultz et al., 2011). Even though social media can be proficient at impacting upon visitors or customer decision making, it is uncertain how to utilize social media platforms because of issues over their trustworthiness and credibility contrasted with traditional media networks (Tham et al., 2013). Such concerns would be investigated in future research.

To identify the appropriate information pertaining to a disaster or crisis hit destination and further create and convey suitable messages through suitable communication strategies is one of the emergent themes from the present research. For example, tour operators are required to inform and communicate with their present and potential customers. Media is one of the critical stakeholders, and media management practices or strategies require considering diverse expectations and also the needs of media agencies and those of effected tourism destination/s require consideration.

More research is required to know when recovery marketing strategies should begin, what recovery-marketing campaigns should be incorporated, and how their use should be assessed. Future research should develop and test recovery-marketing strategies earlier to

the occurrence of crises or disasters. This can facilitate the refining of future strategies or campaigns and help to develop tourist response times. This knowledge is essential for future support of recovery marketing strategies by both industry and government. Visitors respond to crises or disasters, and the way it affects their choice of a tourism destination is also missing. Research about CDM and cultural settings is essential to ascertain whether strategies perform well in different situations like earthquakes, cyclones, floods, or whether efficient strategies are crisis, disaster, or culturally oriented. While crises or disasters have a particular adverse effect, the aftermath of crises or disasters could provide chances for a positive change to occur. Industry or government funding can be accessible for discounted loans and infrastructure developments (Huang et al., 2008; Peters & Pikkemaat, 2005). Furthermore, tourism destinations which suffer from crises/disaster can obtain donations and support from the society/community (Peters & Pikkemaat, 2005), and sometimes that may allow a tourism destination to relocate its services at a high standard. Performing new events or festivals can also act as a means to attract new and potential tourists (Hystad & Keller, 2008) and assist the affected public to collaborate and rebuild their affected area (Derrett, 2003). Moreover, research needs to be conducted on how tourism activities play an important role in creating community infrastructure.

Similarly, how social capital can assist in offering opportunities to encourage tourism destination promotions is important. As most of the research has been of a high standard, the area is rather still at an embryonic stage. Various articles accounted for nine key themes represented in the present review by way of case studies and single events with no conceptual frameworks to underpin the research. Most of the studies reported only descriptive analysis, where others employed sophisticated inferential statistical methods. This advocates that from the perspective of tourist behavior, a need exists to perform a qualitative study to know best insights, opinions or attitudes of tourists, and residents of tourism destinations influenced by crises/disaster. In future, there more studies are needed to be conducted by selecting a single case of disaster and crisis .

Concerning theoretical development that affects methods and topics, Faulkner (2001: 136) claimed that the literature review does not look to make any improvement in understanding the significance of CDM planning because of "the limited development of the theoretical and conceptual frameworks required to underpin the analysis of this phenomena". Few more interesting articles acknowledged the potential conceptual frameworks which may emphasize research in future, like the *chaos theory* (Ritchie, 2004) and *catastrophe theory* (Mao et al., 2010). Many research studies advocated that scholars can employ new approaches to research in a specific field, like an organizational learning perspective or market-oriented perspective. Testing, development, and modification of suitable research models are needed by tourism scholars, specifically models which are least linear and summarize the dynamic and the continuous nature of CDM in tourism. It has been seen that Faulkner's (2001) tourism disaster framework has not been empirically tested at each stage of a disaster or crisis like reduction, readiness, response and recovery.

The communication theories or techniques like "*situational theory*" can be used though there is lack of evidence in the present study. Concerning Gonzalez-Herrero and Pratt (1998), the "*situational theory*" refers to the traits of the stakeholders like the level of involvement, constraint recognition, problem recognition, information seeking and information processing. It is a means of segmenting and researching an organization's stakeholders or public to identify those more efficiently to develop effective two-way communication (Dozier, Grunig, & Grunig, 1995). Increased excellent knowledge of customer psychology during disasters is also required. Thus, the use of psychological

concepts and theories may develop our insights of practical and cognitive aspects like worry, empathy, and fear that can affect repeat visits and risk perceptions to affected tourism destinations. Decision-making theory and customer behavior can be employed to better comprehend the impact which crises and disasters have on visitor intentions and the actual behavior for tourists.

Conclusion

In tourism journals, over 70 research papers have been published in the twenty-first century relating to the topic. These papers have all in some way significantly contributed to our knowledge of the subject; nonetheless, essential gaps remain in existing research. Notably, the research regarding CDM in tourism has been given too scarce attention, thus this paper critically reviews the research articles available on crisis and disaster management for tourist destinations, published in tourism and other related journals employing a narrative synthesis method. The key themes emergent from the present literature review includes responsiveness, strategy formation, collaboration, damage done to destination image and reputation, communication, marketing strategies and messages, the role of media, lacking disaster preparedness in the tourism industry, and changing tourist/customer behavior which are to be expected following a disaster. In the tourism industry, providing secure solutions is very difficult, but tourist destinations can take positive actions or offer various recommendations which also emerged from this review. For example, focus on relationship marketing, lack of tourism disaster preparedness, awareness of the advantages and disadvantages of price discounting, working with the travel trade, and significance of collaborating and knowledge sharing in the tourism sector. It is to be noted that all disasters are different, as they are in diverse settings, on various scales in different destinations with different actors. As such, disaster planning should be relatively generic as it might not be capable of forecasting the accurate conditions of any particular event.

Literature reviewed of earlier research offered a chance to delineate practical suggestions and implications based on previous policies and practices linked to crisis/disaster management in tourism. This study further investigated the research gaps and recognized the need for research based on conceptual and/or theoretical models. Although limitations about the review should be acknowledged, such as for instance the present review findings are grounded on results of published papers and thus specific importance should be disposed to how consistent such published findings are (e.g. Lucas et al., 2007). Nevertheless, the papers utilized in the review have been chosen from various international and national journals, which operate on a double-blind peer review method, and hence, such limitation has been accepted. It is further claimed that it does not diminish the result's significance.

Furthermore, this study spotlights tourism journals that present various relevant and useful papers can be regarded as a limitation of the present article because there are certain papers which may be published in any other allied discipline/area. In the end, the present study acknowledges that the method of data collecting and data analyzing, employing a single investigator, can have limited impact due to the range of viewpoints that many coders have brought to this study. Further systematic reviews can concentrate more on each stage of disasters and crises. Supposing that the future research quality can be enhanced, then it is expected that superior insights would be produced and likely guide stakeholders towards better practices within tourism to cope with tourism CDM in the future.

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