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Theme Park Disasters and Crisis Management – New Insights towards A Duty of Care in Responsible Tourism Management

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ABSTRACT: Responsible tourism has been crafted in the narrative of tourists making ethical decisions to ensure that they engage in tourism in respectful ways. Likewise, tourism practitioners also embed responsible tourism practices to their operations, to derive desired brand and destination images that are aligned to responsible tourism outcomes. However, little is known as to how theme parks engage in responsible tourism, especially when confronted with a crisis or disaster. Using the case study of the Dreamworld equipment malfunction incident in 2016, social media contents and the coroner's report revealed the gaps related to the duty of care by the theme park in delivering a safe and secure visitor experience over the past few decades. It is hoped that this incident offers a solemn, but timely reminder of the need to weave responsible tourism management practices across service and operational design in the theme park industry.

KEYWORDS: amusement parks; ethics; user-generated contents; tourism accidents; insurance and liability

Introduction

The narrative surrounding responsible tourism has been mostly examined in the context of visitors doing the 'right' thing when encountering destinations (Lee, Bonn, Reid & Kim, 2017). This focus on the tourist is perhaps understandable, as they are often perceived as the 'other' encroaching onto the lives and livelihoods of communities that reside in a destination (Burrai & Hannam, 2018). For this reason, numerous scholars have alluded to a range of mechanisms to educate tourists to be more responsible for their actions, and respecting local cultures, values, and norms for the social, built, and natural environment (Mody, Day, Sydnor, Lehto & Jaffe, 2017; Morrison-Saunders, Hughes, Pope, Douglas & Wessels, 2019).

However, tourism consists of numerous stakeholders and therefore the demand-side perspective towards responsible tourism should likewise be supported by an equally robust supply-side approach. This means that governments and industry practitioners should also model the desired responsible tourism practices that they wish their visitors to emulate, and in

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turn, be part of a reputable responsible tourism destination (George, 2017). Some studies have emerged to elucidate how different organisations operationalise responsible tourism, not limited to ethical sourcing of resources for construction or food production, paying the workforce at market rates, and good practices to recycling and conservation for instance (Camilleri, 2016; Carasuk, Becken & Hughey, 2016). Amidst this backdrop, the theme park sector has hardly received academic attention in the context of responsible tourism (Li, Zhang, Hua & Jahromi, 2020). This is somewhat surprising, as theme parks have been a key player to attract tourists to a destination. Related to this paper, theme parks are also not immune to crises and disasters, with Woodcock (2019) reporting 182 accidents over the space of 12 months, where close to one in five of these featured a fatality.

Crises and disasters are forces that disrupt tourism operations (Chiou, Huang, Tsai, Lin & Yu, 2013; Racherla & Hu, 2009). As they are often unexpected, these incidents create additional stress for tourism practitioners, presenting real and perceived safety risks (Chemli, Nunes & Toanoglou, 2018; Hall, 2010). For these reasons, crisis and disaster management skills and strategies are vital to any tourism practitioner (Paraskevas, Altinay, McLean & Cooper, 2013). Given the vulnerability of tourism to crises, several studies have analysed how crisis management should be undertaken (inter alia Mistilis & Sheldon, 2006; Ritchie, 2008; Scott, Laws & Prideaux, 2008). Collectively, these studies assert that crisis management can be approached in a systematic manner comprising of three distinct phases – pre-crisis, in-crisis, and post-crisis (Huang, Tseng & Petrick, 2008). Nevertheless, it is acknowledged that crises are contextual and that a situational approach is needed to responsibly engage stakeholders in managing these challenging environments as destinations, tour operators and other practitioners seek to recover from such impacts (Stahura, Henthorne, George & Soraghan, 2012).

This case study coalesces the lens of responsible tourism and crisis management in relation to the tragic Dreamworld theme park ride accident encountered on the Gold Coast, Australia in 2016, where the official inquiry to the accident was only recently concluded in February 2020. This high-profile incident cast light on the interpretation of the duty of care, that was perhaps precipitated by the emerging practice of social media advocacy in a crisis management context (Schroeder, Pennington-Gray, Donohoe & Kiousis, 2013; Sigala, 2011). Through this case study, new insights towards the notion of duty of care in terms of responsible tourism management are unpacked. Such efforts are intended to trigger conversations around the conceptualisation of responsible tourism from managerial and legal perspectives, after a crisis has occurred. This will be examined using the social media analytic tool, Netlytic (see https://netlytic.org/index.php).

Theoretical Background

Crises and disasters in tourism

Whilst the terms crises and disasters have been used interchangeably in tourism, Faulkner (2001) makes a nuanced distinction that these terms can carry different attributes. He argues that crises are actions triggered by an organisation (e.g., such as industrial actions), while disasters relate to acts of nature, for instance volcanic eruptions and earthquakes. In recent years, crises management in tourism have become more pertinent, especially considering global terrorism acts. For instance, terrorist attacks on Bastille Day 2016 in France and the

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Ariana Grande Concert 2017 in Manchester have spooked visitor interest to visit these destinations considering personal safety (Corbet, O'Connell, Efthymiou, Guiomard & Lucey, 2019; Seraphin, 2017). Incidentally, it is the perceived risks, rather than actual risks, which are inherent in terrorism-stricken destination images (Seabra, Abrantes & Kastenholz, 2014). Destinations therefore make significant effort to eradicate such negative stereotypes that may exist for a prolonged period, to induce tourism demand (Avraham, 2016; Gurtner, 2016).

2020 has also witnessed the tourism industry's efforts to combat a global crisis in the form of the COVID-19 health pandemic (Ugur & Akbiyik, 2020). As this coronavirus is spread through human-to-human transmission, countries have resorted to using a range of tools to mitigate its impact such as international border closures, mobility restrictions, social distancing measures, mask wearing requirements, all of which have one way or another impacted the demand and supply of tourism experiences (Polyzos, Samitas & Spyridou, 2020). According to Johns Hopkins Cornavirus Resource Center (2020), there are close to 43 million cases of COVID-19 globally, with at least 1.5 million deaths as at the end of October 2020. As such, there is a worldwide race to find a suitable vaccine to assist with socio-economic recovery efforts globally (Kaur & Gupta, 2020).

All the same, extant literature have proposed that crisis and disaster management required a systemic and timely response. Building on Faulkner's (2001) work that advocated for a longitudinal approach to crisis management, Ritchie (2004) instead elaborated on a three-stage process of (i) crisis prevention and planning, (ii) strategic implementation and (iii) resolution, evaluation, and feedback. While Ritchie's (2004) work has been instrumental in guiding subsequent studies on crisis management in tourism, it was developed almost a decade prior to the ubiquitous growth of social media in the tourism landscape. As previously discussed, social media have altered the shift of content creation from a producer-centric perspective to one that exemplifies customer-to-customer dissemination. This reframes our approach to crisis management, as unlike two decades ago, where the official media avenues would be relied on to convey reliable crisis developments, social media now enable anyone to relay on crisis-related messages, without necessarily being accurate, hence the term 'Fake news' (Luo & Zhai, 2017).

Furthermore, most studies in tourism to date have focused on crises in the forms of natural disasters, terrorism, and political-economic uncertainty (Jiang, Ritchie & Benckendorff, 2019). Whilst social media has been adopted by end users, tourism practitioners may not know how to collate social media contents for crisis management (Mair, Ritchie & Walters, 2016). This is somewhat surprising, as social media are vital tools in aiding humanitarian efforts, as witnessed in the Nepal earthquake (Heanue, 2015). In addition, Facebook has also launched a new 'Safety Check' feature on its site to help users post statuses of their wellbeing to friends on the social networking site (Huddleston Jr, 2016). Drawing on the tourism crisis encountered at Dreamworld on the Gold Coast, Australia, this research shows how social media contents triggered a rethink into responsible tourism management practices following a roller coaster theme park accident.

In extant literature, few studies have empirically investigated crisis management from the perspectives of theme parks and attractions (with few exceptions, such as Waller & Iluzada, 2019), and even less have incorporated social media contents to this end. A summary of existing literature devoted to the roles of social media in tourism crisis management is presented in chronological order within Table 1. From Table 1, most contexts are centred in

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the North American region, with only recent examples showcasing crisis management from an Asia-Pacific perspective. Most studies allude to the rich insights of social media to analyse crisis management strategies and outcomes, though little is discussed as to software tools that can help to collate such contents in a systematic manner. Moreover, none of the studies to date have discussed crisis management in a tourism context dealing with tragedies due to organisational or equipment failure. Guided by the theoretical gaps, this case study explores how social media contents may be utilised to guide responsible tourism responses to a crisis emanating from within a theme park.

In acknowledging that a range of social media analytic tools exist for a range of purposes, Netlytic offers users a free and easy application to collate, visualise and present social media contents (Ahmed, 2018). Founded within the Social Media Lab at Ryerson University, Netlytic is an open-source tool that can help users collate information from social media feeds within Twitter, Instagram, and Facebook, for instance (Gruzd, Paulin & Haythornthwaite, 2016). Its appeal is the ease of specifying desired criteria into the search function and then allowing the software to scrape relevant material associated with the topic/trend (Felt, 2016). Moreover, Netlytic can also conduct sentiment analysis over time, thereby facilitating longitudinal research (Rieger & Klimmt, 2019). This tool has been adopted across a range of contexts, such as health and wellbeing (Munro, Hartt & Pohlkamp, 2015; Pilar et al., 2018), leisure (Alyami & Toze, 2014; Taleb, Laestadius, Asfar, Primack & Maziak, 2019) and public engagement (Empinotti & Paulino, 2018; Woodruff, Santarossa & Lacasse, 2018; Yang, Quan-Haase & Rannenberg, 2017). Its relevance to this study is also demonstrated elsewhere where different scholars have utilised Netlytic to investigate social media effects in a crisis. For instance, health pandemics in the case of COVID-19 or Ebola virus were the focus of some studies, where relevant hashtags gave rise to evolving discourses, with potential for 'half-truths' (Guidry et al., 2020; Pascual-Ferra, Alperstein & Barnett, 2020). However, little is known about the use of Netlytic as a tool for responsible tourism following a crisis, especially in the case of a theme park. This therefore provides a methodological base to examine such developments in the context of Dreamworld, Australia.

Context

Dreamworld is Australia's largest theme park (Tourism Australia, 2020). Located on the famous tourism belt of Australia's Gold Coast, Dreamworld attracted close to 740,000 visitors in 2018 (Bleby, 2019). On October 25, 2016, the 'Thunder River Rapids' roller coaster ride at Dreamworld malfunctioned and killed four people who were on the ride (Mitchell-Whittington, 2016). The crisis that unfolded was further amplified by media reports that:
- The ride operator was on her first day on the job (Pierce, 2016)
- The ride had malfunctioned earlier on the fatal day (Weston & Elder, 2016)
- Employees had raised numerous concerns of the ride's safety to their respective unions previously (Branco, 2016)
- An attempt to re-open the theme park a few days after the accident was shut down by police (Marin-Guzman & Ludlow, 2016)
- One employee poked fun at the deceased on social media (Smith, 2016)

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Table 1: Studies on social media in tourism crisis management

Author(s)	Year	Context	Type of study	Findings
Sigala	2011	Conceptual paper	Review of use of social media for crisis management	End users should leverage on the quick dissemination available through social media to incorporate stakeholder partnership and manage crises
Pennington-Gray, Kaplanidou & Schroeder	2013	Use of social media during tourism crises by African Americans	Empirical survey of 1018 respondents	Age was an indicative antecedent for social media use in crises associated with crimes, financial and physical risks Daily use did not reveal any greater propensity to rely on social media contents for crises
Schroeder *et al.*	2013	Use of social media during tourism crises	Empirical surveys collated from 2416 tourists from Australia, Brazil, China, India, and Korea	Use of social media differed by nationality, smartphone use and risks perceptions in terms of crime, disease, health-related, physical, equipment failure, weather, cultural barriers, and political crises
Schroeder & Pennington-Gray	2015			Past travel experience was a moderator of whether social media were utilised for tourism crisis management
Liu, Pennington-Gray, Donohoe & Oghenekaro	2015	Bed bugs in New York hotels	Framing of beg bugs using secondary data on TripAdvisor	Bed bugs pose serious risks for tourists and these are being amplified by social media contents
Liu, Pennington-Gray & Klemmer			Conceptual paper adopting the 4R (Reduction, Readiness, Response and Recovery) framework to tourism crisis	Offers fresh conceptualisation to managing bed bug crises in tourism
Ryschka, Domke-Damonte, Keels & Nagel	2016	Crisis in simulated sinking cruise ship experiment	Empirical data of 334 surveys from US and German respondents	Speed of response, brand awareness and cultural norms influenced how cruise tourists perceive the cruise line
Luo & Zhai	2017	Weibo discussions on Occupy Central political event	Secondary data of 5625 comments on Weibo were analysed	Social media can give rise to politically sensitive contents and hasten the need for secondary crisis communications
Yan *et al.*	2017	Earthquake and typhoon in Philippines	Empirical study using 71,329 geo-tagged Flickr photographs	Space and time visuals can help to elucidate more systemic approaches to post-disaster tourism repairs
Moller *et al.*	2018	Crisis communication on tropical cyclones in Fiji	Facebook social media contents through interviews	Social media is a valuable tool to foster resilience and recovery for hotel operators post-pandemic

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			with 12 hotel businesses	
Masse	2019	Crisis revelations of poaching incidents in Mozambique	Facebook messages relating to anti-poaching group posts and being attacked for their actions	Facabook posts reveal under-reported incidents of poaching and the risks associated with anti-poaching agenda
Park *et al.*	2019	Social media analytics on Hurricane Irma in Walt Disney World	1,080 Facebook comments from 1,086 members	Social media analytics reveals opinion leaders and allows tourism organisations valuable ways to work with such influencers
Fukui & Ohe	2020	Social media for tourism recovery in tsunami-hit Japan region of Tohoku	45,080 Twitter tweets from the local municipality	Information on cultural and natural heritage had a positive relationship with the number of incoming tourists, while disaster-related words had negative effects. Tweeted information on tourism resources worked negatively toward the number of volunteer tourists while rehabilitation/reconstruction ones worked positively
Yu *et al.*	2020	Social media discussions on COVID-19	10,132 TripAdvisor comments on the pandemic	The pandemic has heightened tourists' risk perceptions due to the safety risks confronting global destinations Air travel cancellations have led to a wave of disappointments The coronavirus has amplified the focus on health and hygiene Some instances of racial discrimination have surfaced

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Methods

A mixed-method approach was adopted to examine the ramifications of the social media contents as well as the coroner's report related to the Dreamworld accident. Employing mixed methods in this research allowed for a triangulation of perspectives surrounding the conceptualisation of responsible tourism management, and how it can be more robustly understood in a theme park context. First, as the tragic event unfolded, social media contents using the hashtag #dreamworld were collated as units of analysis (Adamson, 2016). These developments, however, were almost completely ignored by Dreamworld. Data were collated over seven days immediately following the incident. This timeframe was specifically chosen as the accident was reported across numerous media channels including television, radio, and newspapers several times a day, making it a prominent topic for various audiences. Then, triangulation was approached via the coroner's report released in early 2020 that formed a closure to the investigations surrounding the Dreamworld incident. This provided further insights to excavate responsible tourism practices (or the lack thereof), that led to the lead up to the crisis, and the management of the incident. Incidentally, the use of coroner reports or documents has not received significant academic attention, with only Stephenson, Byard, van den Heuvel and Peden (2020) recently examining these contents in the case of drowning incidents featuring tourists. However, given the independent and meticulous investigations accompanying coroner reports, they are valuable to be a credible tool to triangulate the outcomes relevant to this study.

Results

Social media context

The data collection comprised 1,625 tweets cumulating with a visual diagram in Figure 1. To interpret Figure 1, topics that featured more prominently are located higher than those beneath it. Additionally, as the longitudinal frames enable users to discern how topics evolve in prominence over time.

From Figure 1, the findings revealed two sequential discourses emanating from responses on social media to the #dreamworld crisis. Following the prominent mentions of the ride, the next spike related to deaths and the families of the deceased. This then shifted to the next peak of discussing the role of the police in the crisis. This sequence is of importance to tourism practitioners, as knowing that dealing with human emotions and loss is of the essence as the first post-crisis amplified theme on social media. The implications of such a finding should steer greater emphasis for tourism practitioners to take heightened actions in demonstrating responsibility through the provision of counselling hotlines for distressed individuals related to the crisis, in addition to medical services on-site.

The subsequent outcome of learning about the heightened role of the police force in the crisis investigations should therefore advocate greater collaboration with different stakeholders and disseminating information on various media channels, including social media (Veil, Buehner & Palenchar, 2011). This can translate into a timeline of events and providing timely updates through the different social media channels. After all, transparency and timeliness of communication are vital cogs in crisis response strategies (Garnett & Kouzmin, 2007). Netlytic offers another useful outcome in creating social network diagrams that illustrate how contents are disseminated between users. This diagram is depicted in Figure 2.
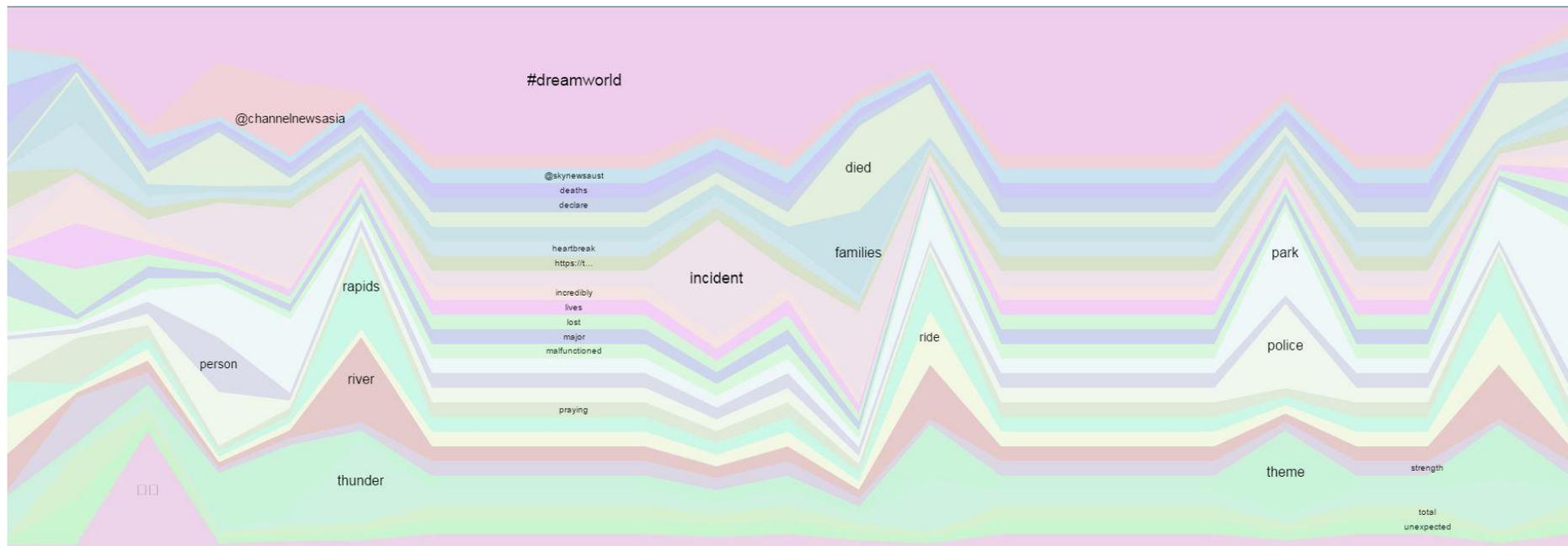
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Figure 1: Evolution of topics on Twitter over a one-week period following #dreamworld accident

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Figure 2: Social network diagram from #dreamworld

From Figure 2, one can identify the strength of ties between individuals based on the number of lines joining one user to another. This diagram is of use to tourism practitioners as they could focus their efforts on addressing the main players in the network, and in doing so, ensure that the systemic crisis response permeates a wider audience, as recommended by Austin, Liu and Jin (2012).

Theoretical and Managerial Implications

While responsible tourism has mostly been framed through the lens of tourists undertaking ethical and socially conscious actions that benefit local communities or the natural environment, this case study instead turns to the responsible tourism management in terms of the provision of service. As such, the conceptualisation of responsible tourism then opens wider debates as to its inclusiveness from a demand-driven model, to a supply-side perspective. Then, by extension, tourism operators, such as theme parks, should uphold standards of responsible tourism management or run the risk of disasters occurring, that result in reputational damage and libel action. Hence, despite the coroner's report to the Dreamworld incident, other accidents continue to surface in theme parks, with another case

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surfacing in recent times at a Cairns festival ride in Australia (Sexton-McGrath & Siganto, 2020).

Potentially in this space, theme park operators may learn from how aviation disasters have been handled in recent times. For instance, the spate of incidents featuring the Boeing 737 Max 8 resulted in the numerous airlines voluntarily grounding their fleet of these planes for the manufacturers to carry out rigorous testing and recertification, which at present, has yet to allow these planes back in the air (Kitroeff & Gelles, 2020). However, theme parks will differ in terms of the lack of a substitution effect as compared to airlines who can perhaps alter their flying routes through scheduling of another plane or reduced frequencies. Theme parks, however, will have to close the ride, with its visitors having to make do with the remaining choices elsewhere in the vicinity, and thereby result in service failures (Torres, Milman & Park, 2018). Nevertheless, it is argued that responsible tourism management should also be approached from a supply-side perspective whereby tour operators and attractions also undertake due diligence in ensuring that safety is paramount. In relation to COVID-19, there are already actions in place within theme parks to ensure that the overarching considerations of physical health and safety outweigh the loss of revenue associated with capacity constraints (Gabe, 2020). Clearly, there are emerging value propositions to reiterate the need to consider responsible tourism management practices over financial profits in positioning tourism experiences of the future.

Conclusion

In conclusion, this case study has highlighted the need to transpose responsible tourism in the context of crisis management for theme parks, and likewise other tourism practitioners. Drawing on the advocacy embedded within social media contents and the coroner's report to the Dreamworld incident, strategic responses to tourism crises are raised from a responsible tourism perspective. Tourism practitioners must display a moral and social obligation towards their duty of care in providing responsible tourism practices that should permeate every aspect of their operations. Any crisis that results in the tragic loss of lives is a challenge, but in some cases like Dreamworld, perhaps these could have been mitigated or avoided when responsible tourism management is taken more seriously and accorded as a priority in terms of visitor safety. The ripple effect of what Dreamworld has encountered will also be borne by other theme parks in the country, or internationally, and cast light on (mal)practices related to workplace health and safety for visitors and staff of such organisations.

Given that the focus of this research was a single crisis at one theme park, the results may not be generalisable to other tourism contexts. However, future studies could examine responsible tourism management practices to other incidents, such as industrial actions (e.g., airline union strikes), or natural disasters (volcano eruptions, cyclones etc) and glean further insights. Additionally, other types of primary data such as interviews or surveys could be employed to validate the outcomes of this research over a longer timeframe. Future studies may wish to evaluate whether responsible tourism practices related to crisis management are likely to result in tourist loyalty outcomes. All the same, this research has illuminated the need to extrapolate narrowly defined conceptualisations of responsible tourism to be scrutinised in times of crisis and disaster management.

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