Annals of Tourism Research 53 (2015) 46–60

Contents lists available at ScienceDirect

Annals of Tourism Research

journal homepage: www.elsevier.com/locate/atoures

# Crisis-resistant tourists

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ARTICLE INFO

*Article history:*
Received 1 April 2014
Revised 25 February 2015
Accepted 2 April 2015
Available online 25 May 2015

***Coordinating Editor: J. Tribe***

*Keywords:*
Crisis-resistant tourists
Market segmentation
Risk propensity
Resistance to change
Travel cancellation

ABSTRACT

Despite the negative impact of unexpected events—such as 9/11 and the Global Financial Crisis—on the tourism industry, and despite substantial research into managing crises in tourism, little is known about tourists who are most needed in such situations: crisis-resistant tourists. In this study, crisis-resistant tourists are defined and theoretically conceptualized. Empirical results indicate that segments of tourists resistant to external or internal crisis events indeed exist and—as theoretically postulated—demonstrate higher levels of risk propensity and resistance to change. In contrast, risk shifting is not associated with being a crisis-resistant tourist. An initial profile of crisis-resistant tourists is provided, offering guidance to the tourism industry on how to identify and communicate with this highly attractive market segment.

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## Introduction

This study is the first to propose that a segment of tourists exists, which is inherently more resistant to crises than other tourists. If indeed there is evidence of the existence of such tourists, selecting them as a target market may reduce crisis-vulnerability of tourism businesses and destinations, thereby offering a preventative, rather than curative, approach to crisis management in tourism. Tourism is an important contributor of economic growth in many countries, but also highly reactive to unexpected critical events. Unexpected critical events could include external events such as natural

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http://dx.doi.org/10.1016/j.annals.2015.04.001
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disasters, the outbreak of epidemics, terrorist attacks, financial crises, but also internal events such as family emergencies. When such unexpected events occur, tourists cancel their plans, and tourist demand can drop dramatically. This puts local tourism service providers at serious risk.

A few such external critical events occurred in the past decade, and illustrate the extent that tourism demand can be affected. The Bali bombings led to a greater than 40% fall in outbound tourist arrivals (Hitchcock & Darma Putra, 2005), the SARS pandemic caused an up to 55% decline in the number of Japanese people traveling overseas (Cooper, 2006), and the Global Financial Crisis (GFC) led to a 13% drop in arrivals to OECD countries (OECD, 2010). In addition, people also encounter situations in their own lives. For example, sickness and family emergencies can lead to booking cancellations. Although such incidents tend to distribute randomly across all tourist bookings, and do not have the effect of a major decline in demand at one or across several destinations, such incidents are still of interest in the context of the present study because how travelers react to them determines the attractiveness of specific travel consumers for destinations.

While the tourism literature presents findings related to risk perceptions of certain destinations, tourists' risk management strategies in particular contexts, and reactions to specific crisis events, it does currently not investigate whether there are tourists who are generally more likely to be resistant to crises. We investigate the notion of such crisis-resistant tourists, i.e. those who do not cancel bookings; and instead, follow through with travel plans even if unexpected events occur. Specifically, the aims of this study are to: (1) theoretically conceptualize the crisis-resistant tourist; (2) empirically test whether crisis-resistant tourists exist, and whether the proposed theoretical conceptualization is correct; (3) if so, describe crisis-resistant tourists in order to enable tourism destinations and tourism service providers to target them; and, based on the insight from the study, (4) provide an operationalization of crisis-resistant tourists that can inform tourism marketing and management.

This study contributes to the tourism literature because it is the first to conceptualize and empirically study crisis-resistance of tourists in general terms rather than related to specific events or destinations. It further contributes to risk-related literature by identifying factors that drive such general crisis-resistant behavior. The study's practical value lies in providing tourism destinations and tourism businesses with a profile of crisis-resistant tourists. Such a profile enables active targeting of crisis-resistant tourists through customized products and communication messages. Targeting crisis-resistant tourists provides some protection against unpredictable internal and external crises that are beyond destinations' control because this segment of the tourist market does not cancel trips; rather, they follow through with their travel plans no matter what happens at the destination or in their private lives.

## Literature review

Crisis and disaster management is a prominent topic in tourism connected to a growing body of literature. Nevertheless, most studies focus on reactive response and recovery; only few propose proactive strategic planning (Ritchie, 2004, 2009; Ritchie, Bentley, Koruth, & Wang, 2011). It is argued that effective crisis and disaster management requires the development of resilience. Resilience can be defined as an organizational entity's 'ability to survive—possibly even thrive—in times of crisis' (Seville et al., 2008, p.18). The importance of resilience has been discussed in relation to tourism destinations, and their ability to withstand internal and external crises (e.g., Farr-Wharton, Brown, Dick, & Peterson, 2012).

However, current literature focuses primarily on resilience achieved through organizational structures and capacities. Farr-Wharton et al.'s (2012) paper represents a rare case advocating for a marketing-focused approach towards establishing resilience. The present study argues that the strategic management of demand is critical to building resilience in tourism destinations, and that this requires an understanding of who the tourists are that would endure the risks of traveling during a personal or external crisis event.

The tourism literature acknowledges that engaging in tourism-related behaviors can be associated with a wide range of risks (Chew & Jahari, 2014). General worries as well as country-specific risk perceptions broadly influence travel decisions but especially during times of crises (Fischhoff, De Bruin,

Perrin, & Downs, 2004). There is also a common understanding that tourists' risk perceptions can be dramatically influenced by media reports (Chew & Jahari, 2014). Numerous studies have focused on categorizing and assessing travel-related risks and on revealing the risk perceptions of diverse tourist groups (e.g., Aro, Vartti, Schreck, Turtiainen, & Uutela, 2009; Floyd & Pennington-Gray, 2004; Rittichainuwat & Chakraborty, 2009; Roehl & Fesenmaier, 1992; Sönmez, 1998; Sönmez & Graefe, 1998; Wolff & Larsen, 2014). The literature has also extensively dealt with country-specific risk perceptions (Carter, 1998; Fuchs & Reichel, 2011; Lepp, Gibson, & Lane, 2011; Sirakaya, Sheppard, & McLellan, 1997), especially in the context of destination image studies.

Tourists can employ a number of risk reduction strategies (e.g., look for more information) to reduce uncertainty and hence their perceived risk (Reichel, Fuchs, & Uriely, 2009). Several studies have looked into how tourists deal with subjectively perceived and objectively reported risks, finding, for instance, that tourists engage in varied rationalization strategies to justify their travels to risky destinations (Fuchs, Uriely, Reichel, & Maoz, 2013; Uriely, Maoz, & Reichel, 2007). Further, perceptions of how much tourists can control behaviors related to the specific risks (e.g., health risks) can influence their willingness to travel to risky destinations (Jonas, Mansfeld, Paz, & Potasman, 2011). Importantly, not all crisis events equally deter tourists. Tourists judge specific risk dimensions differently: for instance, Pizam and Fleischer (2002) find that the frequency of terrorist events has a greater impact on tourist behavior than the severity of a single event.

A major shortcoming of the research reported in the existing literature is that risk perceptions and travel to risky destinations have been investigated in specific contexts rather than across destinations, trip contexts and kinds of crises. For instance, destinations studied include mostly those that had experienced terrorism, political instability or a natural disaster such as New Orleans (Pearlman & Melnik, 2008), the Middle East (Sharifpour, Walters, & Ritchie, 2014) and Norway (Wolff & Larsen, 2014). Trip contexts include group travel (Tsaur, Tzeng, & Wang, 1997), backpacking (Elsrud, 2001) and religious tourism (Mansfeld, Jonas, & Cahaner, 2014). This makes it impossible to derive insights from past research regarding general propensities to take travel risks and to determine potential resistance across destination and crisis-contexts, which is the goal of this paper.

However, the literature also recognizes that—while risk perceptions are important in determining destination and tourism product choice (Quintal, Lee, & Soutar, 2010)—risk is not necessarily a deterrent in the travel context, and can sometimes even be a motivating factor (Fuchs & Reichel, 2011). Whole industry sectors (such as adventure tourism operators) rely on tourists' willingness to take risks, although Cater (2006) convincingly argues that it is thrill and not risk that these tourists are seeking, and that operators need to reduce and carefully manage actual risks for this industry to remain viable.

Risk perceptions in tourism, and especially in relation to crisis events, are very emotion laden (Lehto, Douglas, & Park, 2008). Yet, some tourists seem to be able to set their worries and anxieties aside, and engage in travel even when faced by a crisis that involves risks beyond their control. These tourists are the pillars on which destinations and tourism providers could build their marketing efforts aimed at creating steady demand or demand driving after-crisis recovery. Identifying who they are and what drives their crisis-resistance is the overarching aim of this paper.

## Theoretical conceptualization of crisis-resistant tourist behavior

Roselius (1971) suggests that consumers have four options when faced with risks related to a purchase: (1) reduce risks by decreasing the probability that the purchase will fail; (2) shift from one type of perceived loss to one for which they have more tolerance; (3) postpone the purchase; or (4) make the purchase and absorb the unresolved risk. From an individual tourist's perspective, a typical reaction to a crisis event, and the risks it involves, would be reducing risks through swift changes in travel plans (e.g., travelling to a different destination), while the overall commitment to travel would still be maintained. Alternatively, travel plans could be postponed or abandoned altogether. The former is often actively encouraged by travel intermediaries or transportation providers who seek to shift tourist flows away from crisis-stricken destinations; the latter is discouraged through high cancellation fees (Park & Jang, 2014). Yet, such behavior is of no use to specific destinations and their tourism

industry when facing potential losses of important revenue sources. It can also accentuate or perpetuate crisis events if the crisis was first only confined to a small area, but changes in travel plans involve avoiding destinations at large.

The desirable reaction that stands at the center of the present study is crisis resistance that involves sticking to original plans or intended choices, which corresponds to strategy 4 according to Roselius (1971). However, it should not be seen as a form of ignoring risk; nor should it be confused with extreme forms of tourism that seek out danger or derive pleasure from consuming the aftermath of disasters (Stone & Sharpley, 2008). We define crisis-resistant tourists as those that tend to absorb risks instead of engaging in risk avoidance strategies.

Resistance means opposing motion or change (The Free Dictionary, 2014). This is not necessarily a quality inherent in travel behavior. Tourists frequently diverge from their plans (March & Woodside, 2005), and flexibility is often seen as an integral part of what makes travel pleasurable (Hwang, 2010). Crisis-resistant travel behavior is not conceptualized as completely inflexible, but rather as stable as far as the destination-choice level is concerned (Jeng & Fesenmaier, 2002). Crisis-resistant tourists are those who exhibit such stable behaviors across all forms of crises to which they are exposed. In the narrowest sense, this stability refers to not cancelling trips already booked; however, if this stability is expanded to include travel plans, crisis resistance can also mean booking trips despite knowledge of adverse factors.

Beirman (2003a) identifies three categories of post-disaster markets: Stalwarts, Waverers, and Disaffected. Stalwarts travel to a destination they exhibit great affinity for, and to show solidarity after a disaster strikes. Waverers are the first to return after a crisis. The Disaffected will not travel to post-disaster destinations because they are deterred by anything that complicates their vacation. In contrast, we conceptualize crisis-resistant tourists as those that travel *during or shortly after the crisis* without taking into account their motivations to do so.

Most importantly, we conceptualize crisis-resistance as an enduring behavioral pattern rather than an event-specific reaction. Therefore, crisis-resistance is independent of risk-perceptions regarding the event or the destination, but also independent of the purpose of a particular vacation. However, we do recognize that risk-related behavior can be determined by the risk category and by perceived behavioral control; we therefore postulate that there are potential differences in crisis-resistance according to whether the crisis is an external (natural or political) or internal one (health or family emergency). There are potentially three different explanations for such resistant behavior: (1) high willingness to take risks; (2) high resistance to change; and/or (3) high externalization/shifting of risks (see Fig. 1). This study seeks to test whether they can indeed be empirically linked to crisis-resistant tourist behavior.

As discussed above, crises involve a diverse array of risks; consequently, crisis-resistant tourist behavior automatically means exposure to a risk of some sort. We assume that crisis-resistant tourists do not necessarily perceive the risk differently but have a high threshold for handled risk, which is the risk left over at the end of risk reduction processes (Bettman, 1975). Ergo, these tourists should exhibit

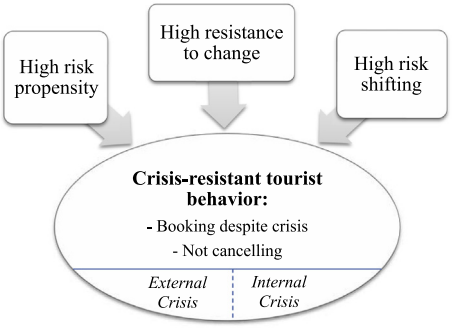


**Fig. 1.** Conceptual model of crisis-resistant tourist behavior.

a generally high propensity to take risks. Risk propensity refers to the generic orientation towards taking a risk when deciding how to proceed in situations with uncertain outcomes (Rohrmann, 2002). Thus, risk propensity is an attitude, which is assumed to influence risk appraisal and, in turn, risk behavior. Risk attitude has been conceptualized as stable rather than situation-specific (Visser, Krosnick, & Simmons, 2003). However, the role of intrinsic risk attitudes in determining actual risk behavior is not as clear-cut as it might seem, and existing research has produced mixed results (Schoemaker, 1993). Further, whether risk attitudes are consistent across different risk domains (e.g., health versus financial risk) and can be captured by an overall measure of risk propensity has been questioned (Weber, Blais, & Betz, 2002).

The literature suggests that individuals travelling to crisis-stricken destinations might have more effective risk reduction strategies than others (Uriely et al., 2007). Yet, given the proposed definition of crisis-resistance as applying across different categories of crisis events, which comprises a wide range of risks, it is assumed that a general willingness to take risks is an important precondition for crisis-resistant behavior to be realized. Whether this is actually the case needs to be empirically confirmed.

The second potential explanation for why tourists travel despite a crisis event is inertia. Change can be difficult, and any change—no matter how small—requires effort. Oreg (2003) defines an individual's inability or unwillingness to cope with change as resistance to change, and suggests that it is an enduring personality trait. It can be assumed that individuals high in resistance to change will execute trip plans despite the occurrence of a crisis because the cognitive and emotional cost of making changes would be too high. This can lead these individuals to engage in crisis-resistant behavior even though their propensity to take risks might be low.

If one is not willing to take on the full risks of travel fueled by a crisis event, externalization of risks or risk shifting strategies can be employed. Taking out travel insurance is the most common and most direct method. Externalization of risks means that the risk is successfully transferred to a separate party. The travel insurance literature has looked at factors such as what claims travel insurance holders make (Leggat & Leggat, 2002), and what the influence of experience or risk acculturation is on the likelihood to purchase insurance (Dean, 2010), but does not empirically investigate the link with travel to riskier destinations or travel despite personal health/family issues. According to Beirman (2003b), risk-shifting is often not a viable option for travelers in the case of destination-specific crises because insurance premiums skyrocket. However, this study's interest is in the general propensity to engage in risk shifting, not in trying to reduce risks once a crisis is imminent or has occurred.

## Methodology

### *Fieldwork administration and measures*

A survey was conducted in four English-speaking mature tourist markets: Australia ($n = 918$), Canada ($n = 922$), the United Kingdom ($n = 952$) and the United States of America ($n = 941$). The questionnaire was developed by the authors, but data was collected by a professional online research panel company that maintains panels of respondents internationally, and recruits them using different media to ensure proper representation. Online surveys were used because they capture representative samples similar to other survey techniques (Dolnicar, Laesser, & Matus, 2009), but also allow the collection of substantial samples sizes internationally at relatively low cost. Members of the online research panel were invited to participate via email and—in line with the fieldwork company's standard procedure—a small compensation was paid to panel members who completed the survey. Respondents were asked a number of questions about themselves and their travel behavior (see Appendix 1).

*Behavioral resistance*—which is conceptualized as the lack of response to a trigger—was measured by asking respondents to indicate critical events despite which they followed through with their planned travel. These critical events included sickness, family emergency, terrorist attacks or street riots, natural disaster within a week before or during the time of departure, and major strikes at the destination. Respondents were also asked, for the same critical events, if they had ever cancelled a planned trip because of such events. This was asked to capture non-resistant behavior. Note that the critical events used include both external events (terrorist attacks or street riots, natural disasters, and

major strikes) and internal events (sickness and family emergency). The study therefore acknowledges existing crisis typologies based on locus, i.e. whether the crisis pertains to the actor or a situation (Coombs & Holladay, 1996), as well as common distinctions among natural and man-made disasters for the external dimension (Shaluf, 2007). The behavioral resistance measure was developed for this study, and is not based on an existing scale.

*Risk propensity* was measured adopting the risk propensity questionnaire (RPQ) developed by Rohrmann (2002). As described by Harrison, Young, Butow, Salkeld, and Solomon (2005), RPQ determines risk propensity by asking respondents to indicate their willingness to take physical risk (risk of injury or death), financial risk (risk of losing money or other assets), health risk (risk of catching a harmful disease), social risk (risk of losing the respect and acceptance of others and harming one's social status), and then asks respondents to compare their general risk propensity to others. Specifically, the study used the operationalization of the RPQ by the NSW Injury Risk Management Research Centre (NSW Injury Risk Management Research Center, 2009, pp. 70–71) with slider scales ranging from extremely low (0) to extremely high (100) willingness to take a specific type of risk.

*Resistance to change* is conceptualized as a general personality trait and was measured as an adaptation of the resistance to change scale developed by Oreg (2003) (two workplace-related items were not included). The scale covers the dimensions of routine-seeking, emotional reaction to change, short-term thinking, and cognitive rigidity. Respondents were asked to indicate their willingness to change using 16 'yes' or 'no' questions, such as: I generally consider change to be a negative thing; changing plans seems like a real hassle to me; once I've made plans I'm not likely to change them; I sometimes find myself avoiding changes that I know will be good for me. The 16 items were added up to derive a general resistance to change score.

Additional measures to help conceptualize crisis-resistant behavior were general experience with travel cancellations, and whether travel insurance was typically taken out. A wide range of additional variables was collected in order to profile crisis-resistant tourists. These variables included variables measuring their travel behavior (number of domestic and international trips as well as typical travel activities), travel motives, sources of information used when planning vacations, how important vacations were to them (money spent on vacation compared to others), how involved they were in travel planning (how much of planning done personally, how much time spent planning), and who they typically traveled with.

Their psycho-graphic background was measured using personality as operationalized by the 'big five factors' of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (Goldberg, 1999), for which 25 items adopted from the International Personality Item Pool were asked from the respondents (Goldberg, 1999; IPIP, 2008). Each of the big five factors were measured with five items. Finally, a number of socio-demographic questions were asked.

Past cancellation behavior, the purchasing of travel insurance, and the use of travel information sources were measured on binary scales because this answer format is conceptually most suitable for the nature of the questions. Binary format was also used for some of the psychological scales because the summated value enters the model, not the individual binary item level value, and because respondents are able to process the large number of questions requiring less cognitive effort and time when presented with discrete answer options (Dolnicar, 2013; Dolnicar & Grün, 2013).

### *Sample characteristics*

In total, 3903 respondents completed the survey. Respondents who had never encountered any of the critical events listed in the questionnaire (sickness, family emergency, terrorist attacks or street riots, natural disaster within a week before or during the time of departure, and major strikes at the destination) could not respond to the questions measuring behavioral resistance and were excluded. The final data set therefore contains 1465 respondents from Australia ($n = 334$), Canada ($n = 361$), the UK ($n = 416$), and the USA ($n = 354$).

The sample consists of 691 females and 774 males. The largest age group in the sample (36%) comprises respondents over 55 years. The percentage of respondents in other age groups of 25–34, 35–44, and 45–54 is equally 18%. Forty-eight percent of respondents are married, 26% are not in a relationship, 14% live with their partner, and 11% are in a relationship, but do not live together. Forty-one percent of

tourists work full-time, 22% are retired, and 15% work part time; 27% are educated up to undergraduate, 26% up to technical training, 25% up to secondary school, and 17% up to postgraduate level. The median personal income is AUD 40,560. As expected for a sample of active travelers, the respondents exhibited high openness to experience (mean = 4.28) and low neuroticism (mean = 2.11). On average, they also score rather high on agreeableness (mean = 4.18) and conscientiousness (mean = 4.13); whereas, the results for extraversion are mixed: many are extroverts, but there are also many introverts (mean = 3.25).

The average number of trips per year within and outside the country of residency is 3.2 and 1.8, respectively; 45% typically travel with their partner, 24% with their partner and children, 16% with their friends, and 14% travel alone; 30% spend less on a typical annual holiday compared to most people they know, 51% spend the same, and only 18% spend more. The majority are very involved in travel planning: 43% do all the planning and 34% do more than half. In addition, 28% spend more time planning than others, and 48% spend at least the same amount as others; only 24% spend less. Forty-six percent typically buy travel insurance.

Of all the respondents, 605 (41%) cancelled a vacation in its entirety in the past. The proportion of respondents who did not (did) cancel travel plans despite a critical event is 31% (25%) in the case of sickness, 19% (25%) in the case of a family emergency, 27% (8%) in the case of terrorist attacks or street riots, 28% (11%) in cases where a natural disaster hit within a week before or during the time of departure, and 36% (6%) in the case of major strikes at the destination. Overall, 41% of respondents went on vacation despite facing at least one internal critical event, and 60% despite facing at least one external critical event; 35% cancelled a trip due to at least one internal critical event and 15% cancelled a trip because they experienced at least one of the external critical events listed in the survey.

Resistance to change is generally low (mean = 6.26 on a 16-point scale). Respondents are more willing to take social risks (mean = 52.31) than physical (mean = 46.93), financial (mean = 41.95) and health risks (mean = 40.67). All the risk propensity scale items (general, social, physical, financial and health) were measured on a 100-point scale.

### *Data analysis*

Cluster analysis was used to determine whether a segment of tourists resistant to internal critical events and a segment resistant to external critical events could be identified. Cluster analysis was chosen because the sample is relatively small, and model-based methods perform better on large samples, which allows them to estimate all the required parameters. The four items measuring behavioral resistance to internal critical events and the six items measuring behavioral resistance to external critical events served as the segmentation bases.

To identify tourists resistant to internal crises, a sub-sample of 989 was extracted from the main sample; these respondents had encountered an internal crisis in the past. The same approach was used to identify tourists resistant to external crises; 1007 respondents had experience with such events. The available sample size of 989 for internal events and 1007 for external events is sufficient for a segmentation analysis with four and six variables in the segmentation bases, respectively. According to Dolnicar, Grün, Leisch, and Schmidt (2013) who—based on simulation studies with artificial data modelled after typical empirical tourism data sets—recommend a minimum of 70 times the number of variables. Data was not preprocessed because the segmentation base was binary in nature, thus not requiring standardization or any other kind of data transformation, and because the number of variables was low and each variable was meaningful. A condensation of variables would have reduced interpretability of findings.

All computations were performed using R version 3.0.1 (R Development Core Team, 2013). Data were clustered with the neural gas algorithm (Martinetz, Berkovich, & Schulten, 1993) using the R package flexclust (Leisch, 2006). Several cluster algorithms, including k-means, were calculated; the neural gas solution was chosen because it generated the most distinct segments. Neural gas also emerged as the most stable algorithm for this type of data in simulations on both artificial and real-world data (Dolnicar & Leisch, 2010; Dolnicar, Leisch, Weingessel, Buchta, & Dimitriadou, 1998), and has been used for market segmentation studies in tourism in the past (Mazanec, Ring, Stangl, & Teichmann, 2010).

To determine a suitable number of clusters, the bootstrapping method by Dolnicar and Leisch (2010) was used. Bootstrapping simulates what would happen if new survey data were clustered. The procedure proposes the number of clusters that is most stable across sample variations and random initializations of the algorithm. Shaded bar plots (Dolnicar & Leisch, 2013) were used to visualize market segments because they allow easy comparison of several clusters. Differences between clusters in metric background variables were tested using the Wilcoxon rank-sum test for means of two groups and Kruskal–Wallis rank-sum test for means of several groups. The Wilcoxon rank-sum test and Kruskal–Wallis statistical tests are non-parametric tests which allow for comparison of two and three or more groups, respectively; unlike MANOVA, they do not assume normality and work with uneven sample sizes. Differences in categorical background variables were tested using a Chi square test; *p*-values were corrected for multiple testing using Holm's (1979) procedure.

## Results

The profiles of segments resulting from the analyses are illustrated in Fig. 2 (for internal events) and Fig. 3 (for external events). The horizontal lines represent the percentage of trip cancellation or not cancellation for each internal (and external) critical event for the sample of 989 (and 1007) respondents. The horizontal bars indicate the percentage of respondents within each segment who cancelled or went on vacation in spite of the occurrence of a critical event.

The key characteristics of each segment emerge when comparing the horizontal lines (responses at sample level) with horizontal bars (responses at segment level). For instance, in Fig. 2, the key feature of Segment 4 is that 100% of segment members have canceled their vacation due to a family emergency, many more than in the overall sample (40%). In Fig. 3, the percentage of respondents in Segment 2 who went on their vacation despite a natural disaster is much higher than the average of the sample, indicating that this is a key feature of Segment 2.

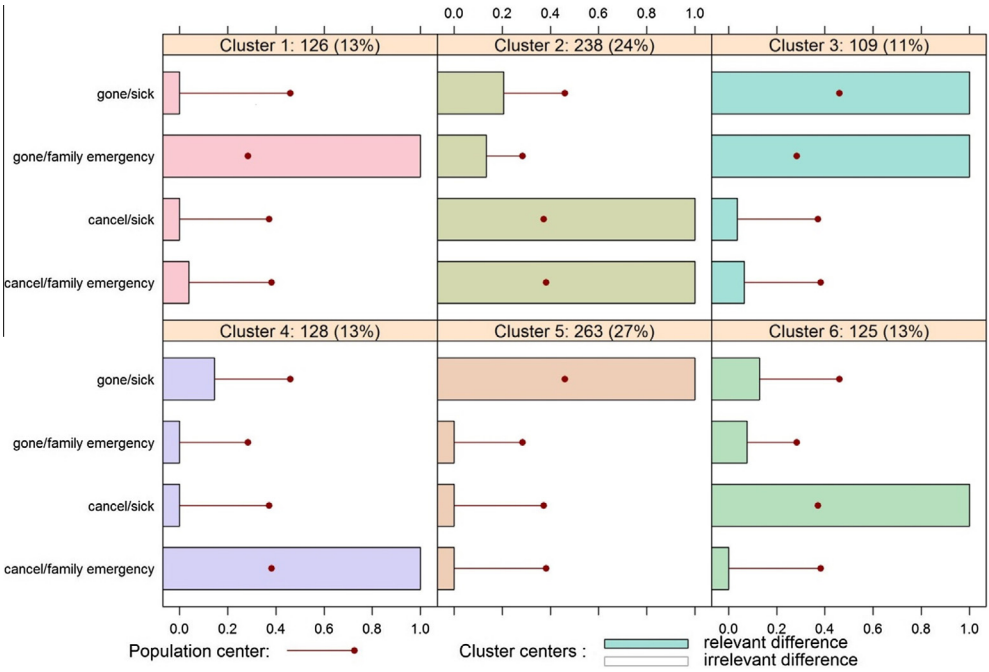


**Fig. 2.** Segment profile plot related to internal critical events.

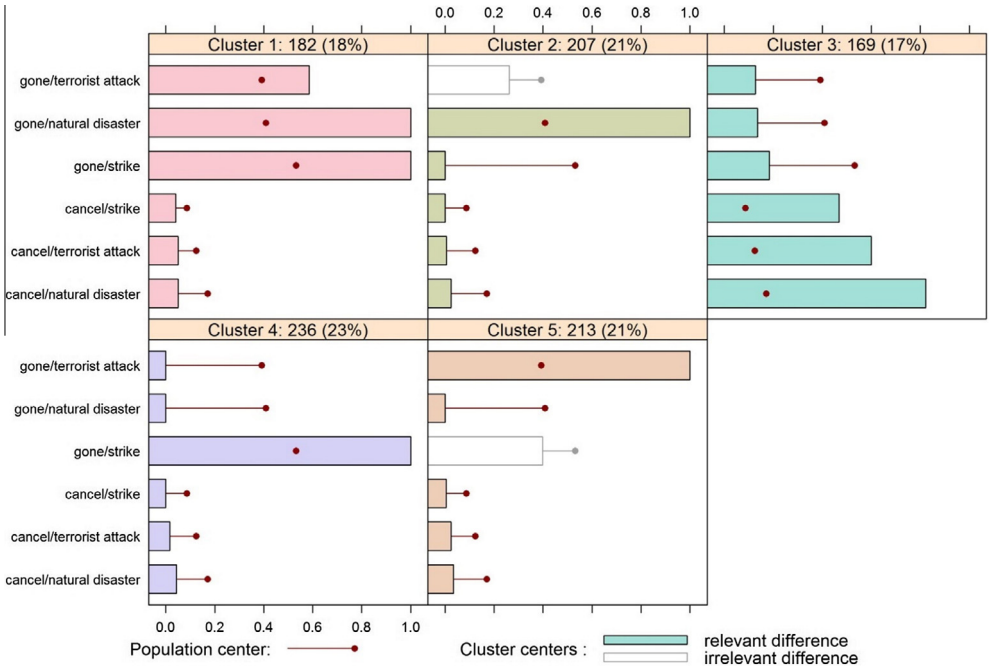


**Fig. 3.** Segment profile plot related to external critical events.

The differences between the segment and sample percentages form the basis of segment profiling. Therefore, the highlighted bars in the segment profile plots indicate variables that make a segment distinct (referred to as *marker variables*). According to a rule specified by Dolnicar and Leisch (2013, p. 14): 'a variable is called a marker variable if the absolute deviation from the overall mean is 25% of the maximum value seen, or if the relative deviation is 50%.' Marker variables are important for the description of segments while non-marker variables are less useful in understanding segments. For instance, all the variables in Fig. 2 are marker variables, while in Fig. 3 the first variable (gone/terrorist attack) is not a marker variable for describing Segment 2, and neither is the third variable (gone/strike) for Segment 5, which means this variable is not very distinct and does not aid in understanding the nature of Segment 5.

*The segments of internal and external crisis-resistant tourists*

*Internal crisis-resistant tourists*

Fig. 2 shows the six segments obtained from segmentation analysis using internal critical events (sickness and family emergency) on the sample of 989 respondents. Segment 1, Segment 3 and Segment 5 in Fig. 2 clearly show the pattern one would expect from internal crisis-resistant tourists. Segment 1 ($n$ = 126) contains tourists who have followed through with their vacation, despite a family emergency, more often than the average tourist population (Family Emergency-resistant Segment).

Tourists in Segment 3 ($n$ = 109) did not cancel their vacation significantly more often than the average tourist population, despite facing both types of internal crisis events (Internal Crisis-resistant Segment). Segment 5 (n=263) contains tourists who, despite facing sickness, did not cancel their travel booking significantly more often than the average tourist population (Sickness-resistant Segment).

Segments 2, 4 and 6 in Fig. 2 show non-resistant characteristics. In Segment 2 ($n$ = 238), the percentage of tourists who have canceled their vacation due to both types of internal crisis events is higher than the sample average (Internal Crisis-non-resistant Segment). In Segment 4 ($n$ = 128), the proportion of tourists who have experience of canceling their vacation due to family emergency is

higher than the sample average (Family Emergency-non-resistant Segment). In Segment 6 ($n = 125$), the percentage of tourists who canceled their travel booking due to sickness is higher than the sample average (Sickness-non-resistant Segment). Detailed information regarding the six individual segments using internal crises variables is provided in Appendix 4.

In order to learn about the characteristics of internal crisis-resistant tourists, the Sickness-resistant Segment, Family Emergency-resistant Segment, and Internal Crisis-resistant Segment are combined ($n = 498$) for our further analyses. This combined internal crisis-resistant segment is compared to the combination of the three non-resistant segments ($n = 491$).

*External crisis-resistant tourists*

Fig. 3 shows the five segments obtained from segmenting 1007 respondents who have faced external crises events. Segment 1 displays the profile of an external crisis-resistant segment: members of this segment have followed through with their vacation despite external events significantly more often than the average tourist population, and they have cancelled significantly less frequently (External Crisis-resistant Segment, $n = 182$). Segment 2 (Natural Disaster-resistant Segment, $n = 207$), Segment 4 (Strike-resistant Segment, $n = 236$) and Segment 5 (Terrorist Attack-resistant Segment, $n = 213$) are resistant to only one of the external critical events each. Segment 3, on the other hand, is a segment of non-resistant tourists who have experience cancelling their vacation due to all the three external critical events (External Crisis-non-resistant Segment, $n = 169$). Detailed information on these five segments is provided in Appendix 5. Segment 1 (External Crisis-resistant Segment, $n = 182$) is compared with all other segments ($n = 825$) in the further analyses.

*Testing the conceptualization of crisis-resistant tourists*

A high-risk propensity was postulated to be a psychological driver of behavioral resistance to crisis events. The results show that behaviorally resistant tourists (to both internal and external critical events) do, indeed, exhibit a greater willingness to take risks across all risk categories, and generally perceive their risk propensity as being higher than that of others (Tables 1 and 2). The findings indicate that crisis-resistant tourist segments score significantly higher on the resistance to change scale; that is, they prefer routines, usually consider change to be a negative thing, find change stressful, do not change their mind easily, and a change of plans seems like a real hassle to them. Therefore, both risk propensity and resistance to change are established as important markers for crisis resistance to both internal and external critical events.

Validating segmentation results, only a small proportion (9.8%) of internal crisis-resistant tourists and 20.8% of external crisis-resistant tourists have ever cancelled a trip in its entirety. In addition, internal crisis-resistant tourists score somewhat lower (43.0%) on buying travel insurance compared to other travelers (47.7%), while external crisis-resistant tourists score somewhat higher (53.3%) on buying travel insurance compared to other travelers (48.0%). However, the differences are not statistically significant.

**Table 1**
Internal crisis-resistant tourists: risk propensity, resistance to change, cancellation behavior and risk shifting.

| Variables | Resistant Segments 1,3,5 ($n = 498$) | Non-resistant Segments 2,4,6 ($n = 491$) | $p$-Value |
|---|---|---|---|
| Do you typically buy trip insurance when making travel reservations? | 43.0% | 47.7% | .156 |
| Have you ever cancelled a vacation travel booking in its entirety? | 9.8% | 100% | .000 |
| Resistance to change (mean) | 7.0 | 6.1 | .000 |
| Risk propensity (mean): | | | |
| physical risk | 51.5 | 43.2 | .000 |
| financial risk | 45.7 | 40.2 | .000 |
| health risk | 46.4 | 36.1 | .000 |
| social risk | 55.1 | 51.2 | .013 |
| risk propensity compared to others | 55.9 | 52.6 | .026 |

**Table 2**
External crisis-resistant tourists: risk propensity, resistance to change, cancellation behavior and risk shifting.

| Variables | Resistant Segment 1 ($n$ = 182) | Segments 2,3,4,5 ($n$ = 825) | p-value |
|---|---|---|---|
| Do you typically buy trip insurance when making travel reservations? | 53.3% | 48.0% | .225 |
| Have you ever cancelled a vacation travel booking in its entirety? | 20.8% | 37.9% | .000 |
| Resistance to change (mean) | 7.1 | 5.9 | .000 |
| Risk propensity (mean): | | | |
| physical risk | 58.3 | 47.9 | .000 |
| financial risk | 51.5 | 42.7 | .000 |
| health risk | 51.8 | 40.9 | .000 |
| social risk | 57.4 | 52.7 | .022 |
| risk propensity compared to others | 60.3 | 55.7 | .011 |

## *Characteristics of crisis-resistant tourists*

### *Internal crisis-resistant tourists*

The internal crisis-resistant tourists differ significantly from other tourists in several ways (see Tables 3 and 4 in Appendix 2). Internal crisis-resistant tourists are significantly younger (median = 41); more of them work full-time (49.2%), fewer are retired (14.1%), fewer are married (43.8%). Internal crisis-resistant tourists also differ significantly with respect to one of the big five personality traits: they score lower on agreeableness (4.07). Furthermore, members of the internal crisis-resistant segment are distinct with respect to their use of information sources for travel planning: they obtain travel-related information more often from social media (44.6%), social clubs (30.7%), and other travelers not personally known to them (44.0%). They are also more likely to do the travel planning themselves (48.2%).

Internal crisis-resistant tourists also differ significantly from non-resistant tourists in some travel behaviors, as shown in Table 4 in Appendix 2. The number of trips per year outside the country of residence is higher (mean = 2.6), they are more interested in adventurous activities such as mountain biking (39.4%), horse riding (47.4%) and hiking (65.5%), and they are less interested in activities such as sightseeing and relaxing. Internal crisis-resistant tourists score significantly higher in some of the motivational elements such as in doing sports (42.4%), improving health and beauty of body (58.2%), not paying attention to prices and money (62.9%), and an intense experience of nature (71.1%). There is also significant difference between the two segments in terms of typical travel companions: internal-crisis resistant tourists are more frequently seen travelling with their partner and children (30.5%), or with an organized group (2.0%), and less frequently alone (13.3%).

### *External crisis-resistant tourists*

External crisis-resistant tourists are significantly different from other tourists in some socio-demographic, psychographic and travel behavior variables (see Tables 5 and 6 in Appendix 3). The external crisis-resistant tourists are significantly younger (median = 39), more of them work full-time (60.4%), and fewer are retired (11.5%). Tourists in the resistant segment score significantly higher in one of the big five personality traits: extraversion (mean = 3.55).

Critical to tourism marketers, members of the external crisis-resistant segment differ significantly with respect to their use of information sources for travel planning (see Table 6 in Appendix 3). More of them do not require any information at all (34.6%), but if they do, they are more likely to use social media (48.4%), social clubs (34.6%), motoring associations (41.2%), and other not personally known travelers (53.8%) as a source. They are less likely to rely on information provided by friends or relatives (70.9%), suggesting that they are more likely to take advantage of the strength of weak social ties when obtaining travel information (Granovetter, 1973). Nevertheless, traditional word of mouth is still important to them. Crisis-resistant tourists are more likely to do the travel planning themselves (57.1%).

External crisis-resistant tourists also differ significantly from other tourist segments in travel motivations and behavior. They undertake more domestic (mean = 4.0) and international (mean = 3.1) travel, engage more in adventurous activities (such as mountain biking (51.1%), horse riding (57.1%) and hiking (75.3%)) and score significantly higher on the motivations of doing sports (49.5%), improving health and beauty of body (59.3%), realizing their creativity (67.0%), and not paying attention to prices and money (64.8%). They score significantly lower on one motivation (change to usual surroundings (85.7%)). In addition, they travel alone (17.0%), with partner and children (25.3%), or with friends (18.1%) more frequently.

## Conclusions

The study set out to find empirical evidence for crisis-resistant travel behavior. The results confirm that crisis-resistance in tourists exists, and that behavioral resistance is a useful measure for it. The results also indicate that there are two dimensions to behavioral resistance, namely 'going despite' and 'not cancelling because', which are, conceptually, not exact opposites. This complexity is also reflected in the construct's link with high-risk propensity and high resistance to change, suggesting that both can be possible explanations for crisis-resistant travel behavior. As such, the research provides important insights regarding the theoretical conceptualization and underlying drivers of crisis-resistance, which was identified as missing from previous literature, and offers guidance to the tourism industry on how to identify and communicate with the attractive market segment of crisis-resistant tourists.

The findings further point to tourists reacting differently to internal and external crisis events, and to not all tourists exhibiting general crisis resistance. This supports that, while the general risk attitude remains stable, risk perceptions can be domain-specific and therefore can lead to different behavioral outcomes. Yet, rather than reflecting established risk domains, the results suggest that a distinction between internal and external events is sufficient to capture the variance.

Importantly, the identified highly crisis-resistant tourists (for both internal and external crisis events) do not necessarily engage in risk shifting; they are not significantly more likely to take out travel insurance than other segments. By conceptualizing and measuring crisis resistance as a behavioral concept related to, but distinct from, a general willingness and a specific propensity to take a variety of risks, but also not a result of risk-shifting strategies, this study provides important contributions to the risk-taking related literature in tourism and adds to the extremely limited bodies of work on the impact of travel insurance purchases and on travel cancellations.

The study further aimed at identifying who the crisis-resistant tourists are in order to support marketing-based efforts to increase destination resilience. The rich descriptions of the characteristics of highly crisis-resistant tourists provide insights into their psyche, their travel-related behaviors, and their socio-economic environment. The picture that emerges from the data paints these tourists as highly involved in travel and related planning activities. They fit the prototypical image of an adventure traveler in being more likely young, more extrovert (external crisis-resistant tourists), less agreeable (internal crisis-resistant tourists), willing to take high physical risks, motivated to travel by opportunities related to sports and health, and actively engaged in activities such as mountain biking, horse riding and hiking. Their life is generally exciting—they do not need to escape monotonous surroundings or constraints imposed by traditional relationships. They therefore fit the conceptualization of the 'allocentric' traveler (Plog, 1991) quite well. Understanding this segment likely means understanding who the first tourists are during or after a crisis event at a destination, which is essential information for crisis management planning. Knowledge of their characteristics is also important for destinations or travel businesses aiming to attract this segment in order to increase their resistance in the event of a crisis, or generally reduce cancellations.

These highly crisis-resistant tourists are an attractive market segment for travel providers, intermediaries and destinations, not only because of their crisis-resistance and because of high spending power, but also because they are highly targetable. They engage in very specific activities at the destination, and attracting them through targeted product development appears to be rather straightforward. They are also highly involved in the travel planning process; therefore, they can be influenced

directly through a variety of channels, including social media, which have emerged as critical communication tools in crisis and disaster events (White, 2011).

The media use behaviors of crisis-resistant tourists provide further implications for resilient destination marketing. As noted by Cooper (2006) and Chew and Jahari (2014), media reports can have a devastating effect on affected destinations. Traditional media, especially TV, have been found to be prone to perpetuate disaster myths (Quarantelli, 1996). While the crisis-resistant tourists use traditional media as information sources, they have a qualitatively different level of awareness based on their widely cast net of information sources. Due to their greater reliance on social media and smaller exposure to opinions of concerned friends and relatives, it is easier to get messages to them that can counteract disaster myths. However, they are also more likely to simply ignore information, which can be an advantage for bringing them to the destination despite a crisis but also a management risk if they ignore warnings.

The present study offers a first exploration of the concept of crisis-resistant tourists. It is limited by the fact that only a small set of possible internal and external crises were investigated. Moreover, some of the items combined crises, which may in fact evoke different reactions from tourists, such as street riots and terrorist attacks. There is a great need to further test the conceptualization, and further characterize the segment of crisis-resistant tourists. One of the major shortcomings of the present study is the reliance on self-reported behavioral data. Basing the segmentation on actual behaviors should be considered for future research in this area. A possible approach would be to observe tourists still visiting in the aftermath of a disaster. Furthermore, this paper focused on behavioral resistance, but insights are also needed on the cognitive and emotional processes that lead up to it.

## Acknowledgements

We are grateful to the Australian Research Council (ARC) for supporting our research through ARC projects DP110101347 and DP120103352.

We thank Bettina Grün for her feedback on data analysis, Amata Ring for her comments on previous version of this manuscript and Morgan Cole for language editing.

## Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.annals.2015.04.001.

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