

Approaches to Study Risk Perception in the Tourism Industry from Tourists' Perspective: A Brief Review

Ab Hamid Rather

Research scholar Dept. of Tourism Studies Central University of Kashmir

Ganderbal (J&K) India

Phone: +91- 7298601080

Email: hamidhassan62@gmail.com

Abstract

The main purpose of this study was to assess and analyse the trends of risk perception research in tourism. First, it focuses on conceptualising risk perception and the various dimensions of risk, both general and destination-specific risks to be taken to understand tourists' risk perception about the destination comprehensively. Second, it focuses on how tourists' demographic and psychographic characteristics influence tourists' perception of risk. Third, it focuses on the need to evaluate risk at both cognitive and affective levels and the importance of measuring on-site tourist risk perception. The study is based on a comprehensive review of literature related to travel risk perception studies. Based on the literature, an integrated conceptual model was built to better assess risk perception in tourism. The integrated model incorporates the dimensions of risk, general and destination-specific risks, and their impact on cognitive and affective appraisals, which impact tourists' decision-making process. Moreover, the influence of demographics and psychographics of tourists on both cognitive and affective appraisals has been outlined in the model. It also outlines the implications of this integrated model for future research and for practice.

Keywords: risk perception, cognitive, affective, demographic, psychographic

Introduction

When it comes to deciding whether or not to visit a destination, travellers' perceptions of safety and security play a significant role (Rittichainuwat & Chakraborty, 2009). Safety and security are considered as extremely important factors as far as the advancement of a country's tourism sector are concerned (Reisinger & Mavondo, 2005) and have emerged as crucial predictors in tourists' destination selection processes (Yang & Nair, 2014). The tourism industry is highly vulnerable and susceptible to a wide range of crisis events, including epidemics, natural disasters, political unrest, terrorism, adverse weather, and crime (Chew & Jahari, 2014; Perpiña et al., 2017; Simpson & Siguaw, 2008). The impact of these crisis events on the travel industry is devastating in terms of low tourist arrivals, reduced tourism consumption, decreased business investment, and job creation (Sönmez & Graefe, 1998a).

The terror attacks in the USA on September 11, 2001, shocked the world and signalled the start of a bleak mood in the travel industry. These attacks have led to negative consequences for worldwide travel. The United States, in particular, experienced a dramatic decrease in passenger traffic, including both domestic and international passenger volume by 23% and similar declines in the lodging industry across the USA (Floyd et al., 2004). Since then, the rise of various global crises in recent years has shown an upward trend. For example, the 2002 Bali bombing incidents, the SARS outbreak in South-East Asia in 2003,

the 2004 Indonesia tsunami in South Asia, the Great Sichuan earthquake in China in 2008, the Ebola outbreak in Africa in 2014-2015 and the more recent Covid-19 pandemic caused the worldwide tourism sector to a complete standstill.

The impact of these crisis events and their associated severity and frequency has led practitioners to pay greater attention to monitoring tourists’ risk perceptions (Yang & Nair, 2014). At the same time, however, there has been increasing criticism regarding the conceptualisation and operationalisation of risk perceptions in tourism (Korstanje, 2011; Yang & Nair, 2014) due to disagreement in definitions of perceived risk as well as risk perception evaluations. This study, therefore, aims to analyse the trend of risk related research in tourism and to develop a conceptual understanding of risk perception in tourism by reviewing the existing literature.

Literature Review

Conceptualisation of Perceived Risk

The research on tourist risk perception within tourism can be traced back to the 1970s when studies like Cohen (1972) and Plog (1974) classified tourists into various typologies based on their risk attitude towards the destination. However, in these studies, the risk attitude was referenced inadvertently (Yang et al., 2015). The majority of risk-related tourism research came into prominence with the Roehl and Fesenmaier (1992) study, considered one of the first studies to identify the various types of perceived risk associated with pleasure travel. Similarly, studies such as Maser and Weiermer (1998), Milman et al. (1999), and Sönmez and Graefe (1998a) were notable during that time period. However, risk perception in tourism gained full momentum only after the Sept. 11 incident in 2001, and risk perception has become a predominating trend in tourism research since then (Korstanje, 2011; Lepp & Gibson, 2003; Williams & Baláž, 2013; Yang et al., 2015).

Risk perception in tourism and hospitality has been described as the loss that a tourist perceives and experiences while purchasing and utilising travel services (Reisinger & Mavondo, 2005). Thus, the tourists’ risk perception is “the possibility of various misfortunes which might befall tourists in the process of travelling or at its destination” (Tsaour et al., 1997, p. 798). Some of the selected definitions of perceived risk taken from the literature are shown in Table 1.

Table: 1 Definition of Perceived Risk

Authors	Definitions
Cunningham (1967, p. 37)	“The amount that would be lost (i.e., that which is at stake) if the consequences of an act were not favourable, and the individual’s subjective feeling of certainty that the consequences will be unfavourable.”
Haddock (1993, p. 20)	“An individual’s subjective assessment of the real risk present at any time.”
Dowling and Staelin (1994, p. 119)	“Consumer’s perceptions of the uncertainty and adverse consequences of buying a product (or

service).”

Yeung and Morris (2006, p. 295) “The judgment of the likelihood that a consequent loss could occur and the seriousness of its likely consequences.”

Thus, it can be said that different researchers have conceptualised perceived risk in various ways. The lack of consensus regarding the definition of perceived risk is due to the interchangeable use of risk and uncertainty, and two streams of literature exist in tourism research regarding the definition of risk and uncertainty (Quintal et al., 2010). The first stream considers risk and uncertainty as an identical concept, where risk is usually defined as a feeling of uncertainty about the purchase consequences. The second stream regards to risk and uncertainty as distinguished constructs where risk refers to known probabilities or uncertainties while uncertainty denotes unknown probabilities or uncertainties (Hofstede, 2001; Yang & Nair, 2014). However, the approach of conceptualising risk and uncertainty under the same construct is still found in contemporary research (Quintal et al., 2010). This is because the tourists’ destination selection process is framed by risk and uncertainty, and both concepts are related to potential loss as a result of an event (Karl & Schmude, 2017). Since perceived risk has been mostly conceptualised as individuals’ subjective assessment of negative outcomes of an event and the probability of their occurrence (Loewenstein et al., 2001; Le & Arcodia, 2018; Quintal et al., 2010; Slovic, 2016), most researchers adopt the Mowen and Minor (1998) definition of perceived risk, which is, “A consumer's perception of the overall negativity of a course of action based upon an assessment of the possible negative outcomes and the likelihood that those outcomes will occur” (p.176). It is worth noting that tourists select destinations on the basis of their risk perceptions, and such perceptions are different from reality (Chew & Jhari, 2014; Fuchs & Reichel, 2006; Roehl & Fesenmaier, 1992). Consequently, tourists’ behavioural intentions in terms of destination selection will be affected only if the level of the perceived risk exceeds the tourist’s individual risk perception threshold (Hasan et al., 2017).

Dimensions of Perceived Risk

As the tourism industry is more vulnerable to risks, tourism research has focused on determining the critical role of tourists’ risk perception in the destination selection process (Fuchs & Reichel, 2011). Risk perception research in the context of tourism has identified risk as a multidimensional concept (Cho et al., 2018; Cui et al., 2016). Moreover, various types of risks perceived by tourists could have varied implications for tourists in their destination selection process, where each dimension of risk has the potential to modify tourists’ evaluation and selection of destinations (Karl & Schmude, 2017; Liu et al., 2016). The various dimensions of perceived risk are also called objective factors affecting tourism risk perception (Carballo et al., 2017; Cui et al., 2016). The multidimensional nature of risk in tourism research was initially examined by various studies (Moutinho, 1987; Roehl & Fesenmaier, 1992; Yavas, 1987). However, the dimensions of risk used in these studies were adopted from the consumer behaviour literature. For example, Roehl and Fesenmaier

(1992) studied seven kinds of risks related to pleasure travel. These risks were financial, satisfaction, physical, equipment, psychological, social, and time risks.

Furthermore, Roehl and Fesenmaier (1992) advocated that perception of risk and travel behaviour appear to be situation-specific. Thus, there is a need to research destination-specific risk perceptions. Later, three additional risks: political instability, health, and terrorism, were investigated by Sönmez and Graefe (1998a) and classified international travel risks into ten categories. The multidimensional nature of the perceived risk taken by various researchers in their studies is summarized in Table 2.

Table: 2Dimensions of Risk Perception

Author & year	Title	Dimensions of perceived risk	Methodology
Type of studies: General travel			
Roehl and Fesenmaier (1992)	“Risk perceptions and pleasure travel: An exploratory analysis”	“Physical risk, Equipment risk, Psychological risk, Financial risk, Social risk, Time risk, Satisfaction risk”	Sample: Adult residents of southwestern a university town (USA) Sampling technique: Multistage sampling Scale development: Literature
Sönmez and Graefe (1998a)	“Determining future travel behaviour from past travel experience and perceptions of risk and safety”	“Physical risk, Equipment risk, Psychological risk, Financial risk, Social risk, Time risk and Satisfaction risk, Political instability risk, Terrorism risk, Health risk”	Sample: U.S. residents Sampling technique: Systematic random sampling Scale development: Literature review
Fuchs and Reichel (2006)	“Tourist destination risk perception: The case of Israel”	“Service quality risk, Socio-psychological risk, Financial risk, Human-induced risk, Food safety problem and weather, Natural disasters”	Sample: International tourists Sampling technique: Stratified random sampling Scale development: Literature, interview with academics, experts, tourist and tour guide
Qi et al. (2009)	“Perceptions of risk and travel intentions: The case of China and the Beijing Olympic games”	“Socio-psychological risk, Personal safety, Violence risk, Cultural risk”	Sample: Large southeastern U.S. university students Sampling technique: Systematic random sampling Scale development: Literature review

Centinsoz and Ege (2013)	“Impact of perceived risks on tourists’ revisit intentions”	“Physical risk, Socio-psychological risk, Performance risk, Time risk, Satisfaction risk”	Sample: International tourists Sampling technique: Simple random sampling Scale development: Literature
Hamouda and Yacoub (2018)	“Explaining visit intention involving eWOM, perceived risk motivations and destination image”	“Material risk, Physical risk, Financial risk, Psychological risk, Satisfaction risk, Time risk, Social risk”	Sample: Tunisian residents Sampling technique: Convenience sampling Scale development: Literature

Crisis related studies

Floyd et al. (2004)	“The effect of risk perceptions on intentions to travel in the aftermath of September 11, 2001”	“Financial risk, Health risk, Physical risk, Crime risk, Terrorism risk, Social risk, Psychological risk, Natural disaster risk”	Sample: Households New York City Sampling technique: Telephone survey Scale development: Literature
Kozak et al. (2007)	“The impact of the perception of risk on international travelers”	“Infection of disease, Natural disaster, Terrorist attack”	Sample: International travellers Sampling technique: Random sampling Scale development: Literature
Rittichainuwat and Chakraborty (2009)	“Perceived travel risks regarding terrorism and disease: The case of Thailand”	“Terrorism, Increase of travel costs, Disease, Lack of novelty seeking, Deterioration of tourist attractions, Travel inconvenience”	Sample: International tourists Sampling technique: Single-stage cluster sampling Scale development: Semi-structured interview
Chew and Jahari (2014)	“Destination image as a mediator between perceived risks and revisit	“Physical risk, Socio-psychological risk, Financial risk”	Sample: International tourists Sampling technique: Online survey

intention: A case of
post-disaster Japan”

Scale development:
Literature

Source: Author's own compilation

Thus, it is quite evident from the literature that risk perception is a multidimensional construct, and scholars have taken both destination-specific risks as well as general travel risks. For example, destination-specific risk studies include the Rittichainuwat and Chakraborty (2009) study related to examining the effect of SARS and terrorism on risk perception of international tourists. Kozak et al. (2007) investigated the perception of risk of international travellers by focusing on terrorist attacks, disease outbreaks, and natural disasters. Similarly, Turvey et al. (2010) measured risk perception from bird flu and terrorism as major determinants of risk perception.

However, the approach of taking both general travel risks and destination-specific risks has been adopted by many researchers (Chew & Jahari, 2014; Park & Reisinger, 2008; Promsivapallop & Kannaovakun, 2017). For example, the Park and Reisinger (2008) study used 13 dimensions of risk, taking six from the consumer behaviour literature and adding other destination-specific risks, such as terrorism, crime, health, and political risks. Thus it can be clearly seen that risk perception is a multidimensional construct, and researchers have considered all possible risk events that could happen to individuals during any travel experience, both those risks that are of a more general nature and those that are specific to a destination

Factors Influencing Risk Perception

It is evident from the literature that tourists' perception of risk is influenced by tourists' demographic and psychographic characteristics, and each dimension of risk significantly varies depending on individuals and their specific circumstances (Roehl & Fesenmaier, 1992). These factors are also called subjective factors of risk perception (Cui et al., 2016). The demographics like age, gender, nationality, education, culture, and experience of tourists play a significant role in their risk perception (Karl, 2018; Lepp & Gibson, 2003; Matyas et al., 2011; Roehl & Fesenmaier, 1992; Sönmez & Graefe, 1998a).

Regarding the relation between age and perception of risk, researchers have found that younger individuals perceive more risk than older individuals, and older individuals have a tendency to show more risk-resistant behaviour than younger ones due to their learning experiences (George & Swart, 2012). Similarly, previous studies found that men perceive lesser risk than women (Lepp & Gibson, 2003; Staats et al., 2006), meaning gender also affects tourists' risk perception. Education, culture, and nationality also act as important determinants in influencing tourists' risk perception (Fuchs & Reichel 2004; Sönmez & Graefe, 1998a; Williams & Baláž, 2013). For instance, Fuchs and Reichel (2004) found that the quality and level of risk perception of tourists visiting Israel differ depending on their cultural background and nationality.

Prior research also highlighted that risk perception is affected by past travel experience, and individuals with more travel experience perceive less risks while visiting a particular destination (Boo & Gu, 2010; Lepp & Gibson, 2003). Past travel experience acts as an internal source of information with which individuals tend to place more weight than

external information sources. Thus, the criteria for decisions and confidence for future travel are strengthened due to past experience of tourists (Kozak et al., 2007; Pennington-Gray et al., 2011; Sönmez & Graefe, 1998b).

Finally, an important factor related to the perception of risk is the psychographic characteristics of tourists, including personality, novelty preference, attitude, value, and motivation. Some researchers have shown that the perception of risk is linked with personality characteristics. Based on the tourists' perception of risk towards a destination, two types of tourists: risk-averse and risk-seekers, have been identified by Sönmez and Graefe (1998b). Risk-averse tourists prefer those destinations that they perceive as safe, while risk-seekers are not much sensitive to safety considerations while selecting destinations.

Risk perception also depends on the degree of novelty or familiarity tourists seek from a destination (Lepp & Gibson, 2003). Thus, it can be viewed as tourists who seek familiarity are likely to view strange environments as riskier than tourists who seek novelty (Lepp & Gibson, 2003). Finally, the purpose of a tourists' visit plays a significant role in their risk perception (Fuchs & Reichel, 2011). Leisure tourists, unlike business travellers, have the option of choosing or avoiding a destination based on its level of safety (Sönmez & Graefe, 1998a).

Theoretical Back ground of Risk Perception

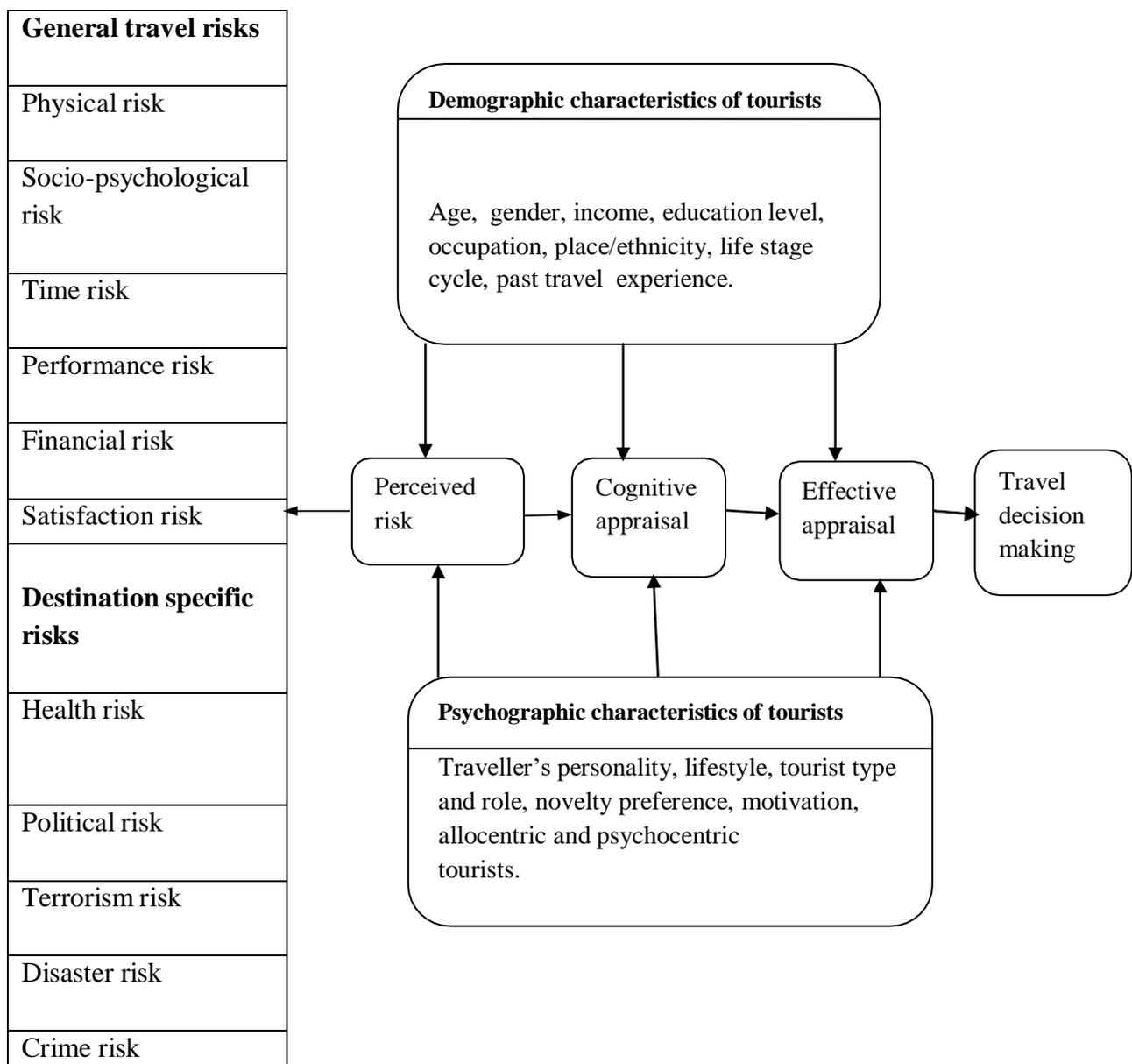
The majority of risk perception research has focused on assessing cognitive attributes, which allude to the risks and obstacles that each traveller may face at any point during their journey (Fuchs, 2013; Reichel et al., 2007). Most theories of risk perception are based on cognition. These studies were guided by the Protection motivation theory [PMT] (Rogers 1975). Loewenstein, Weber, Hsee, and Welch (2001) proposed the concept of risk as feelings, claiming that emotion explains a wide spectrum of risk-related decisions and reveals that risk perceptions, both affective and cognitive, have a direct impact on decision-making (Loewenstein et al. 2001). The risk-as-feelings theory recognises that people experience risk in two ways (Slovic and Peters 2006), as well as the possibility that cognitive and affective risk assessments are linked (Loewenstein et al. 2001). Since then, other researchers have discovered that perceived travel risks elicit affective responses such as anxiety, dread, fear, and worry (Reisinger & Mavondo, 2005; Shim & You, 2015; Trumbo et al., 2016), which are significantly negatively correlated with visit intention.

The most significant development is that recent research has established that risk perception is a cognitive-affective phenomenon (Becken et al., 2016; Shim & You, 2015; Trumbo et al., 2016). According to Becken et al. (2016), potential tourists in China have a negative attitude about travel risks, and their feelings about specific dangers have a considerable negative impact on the destination's image as well as their inclination to visit. As a result, a distinction must be made between the classic cognitive method and the more contemporary cognitive-affective approach. Only the cognitive component of risk perception was studied in previous studies. In recent risk perception research, cognitive and emotive components have been combined.

Furthermore, most risk perception studies evaluated risk prior to visiting the destination and were focused on potential tourists, including university and college students. The risk perception evaluation in this way has been criticised by various researchers.

For example, Korstanje (2009) argued that the measurement of risk perception of tourists before actually visiting the destination is simply an exploration of anxiety because there is no direct stimulus that acts as a crucial factor in forming perceived risk. Therefore, it is of vital importance to explore *in-situ risk* perception in future studies (Fuchs & Reichel, 2006; Yang & Nair, 2014). On the basis of the above literature following conceptual framework for the assessment of tourist risk perception has been formulated (figure 1).

Figure: 1 Conceptual model of risk assessment in tourism



Discussion and conclusion

The purpose of this study was to analyse the trend of risk research in tourism and to develop a conceptual framework of risk assessment. Over more than two decades, perceived risk has been a hot debatable and interesting topic among tourism practitioners and scholars. However, in the tourism literature, there is still no consensus on the conceptualisation of perceived risk, and the majority of risk studies do not have any conceptual framework (Quintal et al., 2010). This is due to the interchangeable use of perceived risk and perceived uncertainty. Despite the fact these two constructs are distinct still, uncertainty as a function of risk is evident in contemporary research (e.g., Cho & Lee, 2006; Park et al., 2005; Quintal et al., 2010). Therefore future research should be done keeping in view that perceived risk and perceived uncertainty are distinct constructs. Furthermore, as far as tourists' risk perception evaluation studies are concerned, the majority of studies were focused on the risk perception of tourists before visiting the destination. Therefore, future studies should explore the *in situ* and *ex post facto* risk perception as direct stimulus acts as a crucial factor in forming perceived risk (Fuchs & Reichel, 2006).

Regarding the theoretical background of perceived risk studies, most of the studies were based on focusing on cognitive attributes. These studies have used Protection motivation theory [PMT] (Rogers 1975) as theoretical background. There is a dearth of studies regarding the evaluation of risk at the affective level. As a result, risk perception encompasses more than a computation of negative probabilities when it comes to making decisions in a risky or uncertain circumstance. Loewenstein et al. (2001) discovered that individuals' cognition and feelings act in divergent ways, and in many circumstances, emotional reaction outweighs the cognitive appraisal. In this context, a more comprehensive approach is required, encompassing both cognitive and effective risk perception concepts to support an alternative theoretical perspective, namely the risk-as-feeling hypothesis. Also, it is clear from the available literature that perceived risk is a multifaceted (Cho et al., 2018) and often situation-specific construct (Sharifpour et al., 2014). There is no definitive list of perceived dangers because academics have revisited risk classification from time to time to better reflect changes in tourism's external circumstances.

Moreover, the tourist experience is affected not only by consumer risks but also by specific occurrences such as bad weather, natural disasters, infectious diseases, political upheaval, hostile locals, and criminality, to name a few (Reichel et al., 2007; Simpson & Siguaw, 2008). As a result, the risk spectrum introduced in consumer behaviour literature has been broadened in tourism literature. Even though previous scholars produced scales of perceived travel hazards, there is still a need to develop a more comprehensive itemised typology of perceived tourist risks that take into account destination-specific risks (Perpiña et al., 2017). Finally, it is confirmed from the literature that both demographic and psychographic profiles of tourists such as nationality, previous tourist experience, gender, age, occupation income, information search and sources, personality type and tourist role or type have an impact on their perceptions of risk. The degree of perceived risk associated with each factor differs according to gender, age, level of education and past travel experience tourist role and personality (Roehl & Fesenmaier, 1992; Soñmez & Graefe, 1998b); Lepp & Gibson, 2003 Kozak, et al., 2007). Therefore it is mandatory to include all these factors to have a scientific framework to better assess risk perception in tourism.

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