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## MARKETING | REVIEW ARTICLE

# Tourist risk perceptions and revisit intention: A critical review of literature

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**Abstract:** Tourists' perceptions of risk with travel destination are one of the key determinants of their decision-making in revisiting a destination. Despite the importance of the subject in tourism literature, a few attempts have been made to focus on the effects of tourist risk perceptions on revisit intentions. Moreover, a theoretical foundation is still lacking in current literature highlighting the relationship of the effect of tourist risk perceptions through satisfaction and attitude towards revisiting with tourist revisit intention. Taking this into account as research gap, this paper provides a critical review of the effect of tourist risk perceptions in tourism research, presenting a descriptive background, identifying the progress, develop an integrated conceptual framework, review of their theoretical propositions and methodological issues and suggesting new areas and approaches for future research. The study concludes that the area is dominated by both the quantitative and the qualitative research, and a lack of appropriate theoretical foundation is a major problem to understand the common risk dimensions and their effect on tourist revisit intention. Therefore, the integration of satisfaction and attitude towards revisit with the relationship between tourist risk perceptions and revisit intention in a single framework seems rational to provide an insight for new research approach.

**Subjects:** Tourism; Business, Management and Accounting; Risk Management; Marketing

**Keywords:** tourist risk perception; revisit intention; satisfaction

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### PUBLIC INTEREST STATEMENT

Nowadays, tourists' safety and security is one of the major concerns in tourism industry. Each minute a new crime or assault is being committed towards tourists at any one destination by human or animal or equipment. Truly, tourists are less likely to visit a destination if they feel it is risky. That is why many travel destinations which were very popular to tourists have lost their position due to risks and safety concerns. As a result, the issue of tourist safety and security risks at the destinations has become a major concern for policy makers, legislators, marketers and business people. The present study provides a general understanding of major risks factors associated with a travel destination that affect tourist decision-making and attitude to visit a destination. Moreover, the findings will help general people to know the degree of risk factors associate with different type of tourism settings.

## 1. Introduction

Tourists' perceptions of risk and safety is one of the key factors in their decision-making process to travel to a destination (Gut & Jarrell, 2007; Rittichainuwat & Chakraborty, 2009). Literatures reveal that tourists risk perceptions have a significant impact on their behavioural intention (An, Lee, & Noh, 2010; Artuđer, 2015; Cetinsoz & Ege, 2013). Tourists may view risk issue differently due to the differences of geographical and cultural (Aqueveque, 2006; Law, 2006), psychological (Reisinger & Mavondo, 2005) and travel experiences (Kozak, Crofts, & Law, 2007), which may affect their behavioural intention in a different way (Quintal & Polczynski, 2010). Generally, tourists try to avoid travelling to a destination if they consider it risky (Aqueveque, 2006; Cetinsoz & Ege, 2013; Chew & Jahari, 2014), while many of them take risk as part of excitement in their travelling (Imboden, 2012; Lepp & Gibson, 2003). Moreover, risk associated with travel destination is multidimensional in nature where both the consequences and the outcomes are uncertain (Hossain, Quaddus, & Shanka, 2015; Sohn, Lee, & Yoon, 2016). As a result, it is probably most critical to identify the common risk dimensions for developing a theoretical foundation based on the tourist risk perceptions incorporating other antecedents of behavioural intention. However, due to having the importance of the concept of risk perception in literature, a quite number of theoretical and empirical studies have been done (e.g. An et al., 2010; Artuđer, 2015; Casidy & Wymer, 2016; Cetinsoz & Ege, 2013; Chew & Jahari, 2014; Cui, Liu, Chang, Duan, & Li, 2016; Korstanje, 2009; Law, 2006; Qi, Gibson, & Zhang, 2009; Rittichainuwat, Qu, & Leong, 2003; Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998) entertaining the risk dimensions associated with travel destination and their effect on tourist behavioural intentions (Tables 1 and 2).

Tourist perception of multiple risk dimensions mainly refers to negative consequences that may occur during travel (Cetinsoz & Ege, 2013; Cui et al., 2016). Therefore, researchers have paid considerable attention to find out, assess and evaluate the risk dimension associated with the tourism attractions, resources and process (e.g. Fuchs & Reichel, 2011; Rittichainuwat & Chakraborty, 2009;

**Table 1. Concepts of "risk perception" in marketing and tourism studies**

Authors (s)	Year	Definition
Bauer, R. A.	(1960)	"Subjectively discerned risk in the situation where customers need to select a choice such as a brand, store, and way of purchase"
Cox, D.	(1967)	Probable intrinsic risk and its quantity that reduces customers confidence to accomplish the goal of purchase
Engel and Blackwell	(1983)	A sum of probable risk in purchasing a desired product
Gartner, W. C.	(1989)	Making a wrong selection that result in expected loss
Assael, H.	(1995)	Perceived risk is a dilemma between purchase intention and undesirable loss from the purchase
Tsaur et al.	(1997)	Possibility of adverse situation occurs at the travel destination
Sonmez and Graefe	(1998)	The risk value perceived by a tourist in travel situation
Mowen and Minor	(1998)	An overall negative course of action perceived by customers based upon possible negative outcomes and the outcomes will occur
Reichel et al.	(2007)	Consumers perceptual negative impact on whether an tourism event is beyond the acceptable level of his travel behaviour
Huang et al.	(2008)	The psychological discomfort and anxiety during buying and consuming certain tourism services for the tourists
Liu and Gao	(2008)	Tourists subjective evaluation on the uncertainty of the results of tourism activities
Wong and Yeh	(2009)	The possibility of negative consequences and the extent of uncertainty perceived by tourists to purchase product on destinations
Zhang, J. K.	(2009)	Deviation between a subjective evaluation of psychological expectation and the objective consequence of traveller behaviour
Fuchs and Reichel	(2011)	Risk perception refers to the concerns of tourists about possible loss, adverse impacts and the involuntariness of exposure
Chen and Zhang	(2012)	The intuitive and subjective judgments of potential risks factors that appear in tourism process for tourists

**Table 2. Risk perception dimensions used in consumer behaviour and tourism**

Author (s)	Year	Context	No. of factor	Dimensions/factors
Jacoby and Koplan	(1972)	Consumer product	(5)	Performance, Financial, Social, Psychological and Physical
Moutinho	(1987)	Vacation tourism	(5)	Functional, Physical, Financial, Social and Psychological
Roehl and Fesenmaier	(1992)	Pleasure travel	(7)	Physical, Financial, Time, Equipment, Satisfaction, Social and Psychological
Tsaur et al.	(1997)	Package tour	(2)	Personal/physical risk and Equipment risk
Mia' ser and Weiermair	(1998)	Travel decision-making	(7)	Crime risk, Diseases risk, Natural disasters, Unhygienic, Transportation and Culture or Language barriers.
Sonmez and Graefe	(1998)	International travel to geographic regions	(10)	Equipment risk, Financial risk, Health risk, Physical risk, Political risk, Social risk, Satisfaction risk, Time risk, Terrorism risk and Psychological risk
Solomon	(1999)	Consumer products	(5)	Monetary, Functional, Physical, Social and Psychological
Wu et al.	(2001)	Security research	(2)	Natural and Artificial
Lepp and Gibson	(2003)	Novelty seeking in international tourism	(7)	Health and well-being, War and political instability, Terrorism, Strange food, Cross-cultural differences, Political and religious dogma and Petty crime
Dolnicar	(2005)	Barriers to leisure travel	(5)	Political, Environmental, Health, Planning and Property
Fuchs and Reichel	(2006)	Destination risk perception	(6)	Human induced risk, Financial risk, Service quality risk, Natural disaster and car accident risk, Socio- psychological risk, Food safety and weather problem risk
Boksberger et al.	(2007)	Air travel	(5)	Financial risk, Personal risk, Social risk, Functional risk and Time risk
Moreira	(2007)	Risks in tourism	(2)	Invisible and Catastrophe
Liu and Gao	(2008)	Residents risk perception	(8)	Property risk, Health risk, Medical risk, Social risk, Security risk, Facilities risk, Psychological risk and Performance risk
Chen et al.	(2009)	Tourist travel preference	(4)	Public health risk, Terrorist attack and war risk, Natural disaster and Financial risk
Rittichainuwat and Chkraborty	(2009)	Risk in terrorism and disease	(6)	Terrorism, Travel costs, Lack of novelty, Disease, Travel inconvenience, Deterioration of tourist attractions
Li, Y	(2010)	Risk with natural disasters	(8)	Personal risk, Health risk, Value risk, Moral hazard, Social risk, Time risk, Crime risk and Convenient risk
An, Lee, and Noh	(2010)	Air travel satisfaction	(4)	Natural disaster risk, Physical risk, Political risk, Performance risk
Fuchs and Reichel	(2011)	Risk with highly volatile destination	(6)	Service quality risk, Human induced risk' Financial risk, Natural disaster risk, Psychological risk, Food safety risk
Hu, QZ	(2011)	Hotel guest risk perception	(7)	Economic risk, Health risk, Social risk, Performance risk, Psychological risk, Time risk and Opportunity loss risk
Zhang, JK	(2012)	Optimization of tourism risk	(5)	Performance risk, Financial risk, Health risk, Convenient risk and Facilitate risk
Chen and Zhang	(2012)	Sports tourism risk	(2)	Risk characteristics and Media communication
Liu et al.	(2013)	Online group buying	(4)	Product risk, Financial risk, Psychological risk, Time risk
Cetinsoz and Ege	(2013)	Perceived risk and revisit intention	(5)	Physical risk, Satisfaction risk, Time risk, Socio-psychological risk and Performance risk
Chew and Jahari	(2014)	Image, risk and revisit intention	(3)	Financial risk, Physical risk, Socio-psychological risk
David A Baker	(2014)	Religious tourism	(7)	Financial risk, Physical risk, Social risk, Functional risk, Psychological risk, Situational and Travel risk
Casidy and Wymer	(2016)	Risk, satisfaction, and WTP	(4)	Financial risk, Social risk, Performance risk and Psychological risk
Cui et al.	(2016)	Tourism risk perception	(8)	Human risk, Psychosocial risk, Food safety, Weather risk, Finances, Quality of service, Natural disasters and Accidents;

Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998). These studies mainly focus on identifying underlying risk factors associated with travel destinations and tourism activities in different contexts. However, the factors derived from these studies are no longer enough to claim as common dimension to assess and evaluate tourist risk perception in general tourism context. Therefore, summarizing and ranking order the common risk dimensions (Tables 3 and 4) based on their level of wide application and the degree of importance perceived by tourist may help to develop a new framework to study risk dimensions in different tourism contexts (Cui et al., 2016). Yet, very little attempt has been made to summarize the risk dimensions according to the degree of tourist risk perception in literature. Consecutively, it is found in literature that tourists are likely to take travel decision based on their risk perception rather than the reality (Rittichainuwat & Chakraborty, 2009; Roehl & Fesenmaier, 1992). The degree of tourist risk perception varies as regards to before travelling and during travelling to a destination (Rittichainuwat & Chakraborty, 2009). The consequences of tourist risk perception during travel affects their experience, satisfaction, loyalty, revisit intention and word of mouth creation (An et al., 2010; Cetinsoz & Ege, 2013; Qi et al., 2009; Sohn et al., 2016).

In literature, a number of studies have been found (e.g. An et al., 2010; Artuđer, 2015; Cetinsoz & Ege, 2013; Lee & Chi, 2014; Qi et al., 2009; Quintal, Lee, & Soutar, 2010; Sohn et al., 2016) investigating the relationship between tourist risk perception during travel and their post-visit behavioural intention such as revisit, loyalty and recommend intention. Attention has then been extended by the scholars to address the effect of tourist risk perception on a wide range of themes, including the effect of risk perception on destination image (Chew & Jahari, 2014; Lepp, Gibson, & Lane, 2011), commitment (Johnson, Gabarino, & Sivadas, 2006; Johnson, Sivadas, & Garbarino, 2008), motivation to revisit (Fuchs & Reichel, 2011), perceptual evaluation, need for variety (Sohn et al., 2016). Nevertheless, a few studies discussed about the tourist risk perceptions and its effect on two generic concepts of consumer behaviour such as attitude and satisfaction, even though these concepts have widely been used as the antecedences of post purchase behaviour in consumer behaviour literature (e.g. An et al., 2010; Jin, Line, & Merkebu, 2016; Liu, Brock, Shi, Chu, & Tseng, 2013). Here, researchers' view is that the risk perceptions and satisfaction even though share a common influence from consumption experience, but the direct effects of risks as an antecedent of customer satisfaction is still under investigation (Johnson et al., 2006; Szymanski & Henard, 2001). Thereafter, the relationship between risk and satisfaction has been investigated by a quite number of consumer behaviour researches, and the findings of those researches claim that a high level of perceived risk decreases customer satisfaction and also negatively influences customer repurchase intention (Beneke, Flynn, Greig, & Mukaiwa, 2013; Bennett, Härtel, & McColl-Kennedy, 2005; Jin et al., 2016; Johnson et al., 2006; Li & Murphy, 2013; Meng & Elliott, 2008; Tam, 2012; Wirtz & Mattila, 2001).

Additionally, each risk factor causes an expectation of a probable loss, it also influences individual's attitude towards a behaviour negatively (Horvat & Došen, 2013). Scholars in consumer behaviour research opined that low risk perception leads consumer stimulation to evaluate the product positively while high risk perception leads consumers to become more conservative to purchase the product (Campbell & Goodstein, 2001; Chang, Cheung, & Lai, 2005; Horvat & Došen, 2013; Lobb, Mazzocchi, & Traill, 2007; Vijayasarathy & Jones, 2000). In these studies, attitude to behaviour is considered as being conceptually different from the broader concept of attitude towards an object. Say, one may like red meat (attitude to red meat), but purchasing red meat depends on a specific dietary requirement (attitude to behaviour) (Lobb et al., 2007). Yet, the scarcity of research work on tourist risk perception and attitude to behaviour is still evident in tourism literature even if it is suggested that tourism risk should be studied in relation to tourist attitudes (Baker, 2014). Even though, a few studies in this context discussed destination risk and satisfaction (e.g. Casidy & Wymer, 2016; Fornell, Rust, & Dekimpe, 2010), and attitude (Lu, Yeh, & Chen, 2016; Quintal et al., 2010), the relationship between satisfaction and attitude is fairly ignored due to overlapping meaning and concept in literature (Huang, 2007). Moreover, the relationship between tourist risk perceptions, satisfaction, attitude towards revisit and revisit intention has not been conceptualized in a single framework yet in literature.

**Table 3. Connotation of risk dimensions used in travel and tourism studies**

<b>Risk dimensions</b>	<b>Connotation</b>	<b>Author (s)</b>
Financial risk	Financial risk refer that the purchase of tourism product and service may not or is not worth of money in terms of value	Moutinho (1987), Roehl and Fesenmaier (1992), Sonmez and Graefe (1998), Solomon (1999), Fuchs and Reichel (2006), Boksberger et al. (2007), Chen et al. (2009), Fuchs and Reichel (2011), Hu (2011), Zhang (2012), Liu et al. (2013), Chew and Jahari (2014), Baker (2014), Casidy and Wymer (2016) and Cui et al. (2016)
Physical/health/personal risk	Refer to the possibility of accident, insecurity, changing environment and weather, natural disaster, life threatening diseases, illness, and so on causing the damage of personal body health	Moutinho (1987), Roehl and Fesenmaier (1992), Sheng-Hshung et al. (1997), Tsaur et al. (1997), Sonmez and Graefe (1998), Solomon (1999), Lepp and Gibson (2003), Boksberger et al. (2007), Liu and Gao (2008), Chen et al. (2009), An et al. (2010), Li (2010), Hu (2011), Zhang (2012), Cetinsoz and Ege (2013), Baker (2014), Chew and Jahari (2014) and Cui et al. (2016)
Social/socio-psychological risk	Social risk occurs when the choice of tourism products and services may detriment to the tourists' social image, and feel adverse impression of friends and family to them	Moutinho (1987), Roehl and Fesenmaier (1992), Sonmez and Graefe (1998), Solomon (1999), Fuchs and Reichel (2006), Boksberger et al. (2007), Liu and Gao (2008), Li (2010), Hu (2011), Cetinsoz and Ege (2013), Baker (2014), Chew and Jahari (2014) and Casidy and Wymer (2016).
Psychological risk	Refer to feeling tension, worry, embarrassed while tourist purchase certain tourism products leading to a loss of self-esteem, image, and getting others' reactions	Moutinho (1987), Roehl and Fesenmaier (1992), Sonmez and Graefe (1998), Solomon (1999), Liu and Gao (2008), Fuchs and Reichel (2011), Hu (2011), Liu et al. (2013), Baker (2014), Casidy and Wymer (2016) and Cui et al. (2016)
Functional/performance risk	This type of risk occurs if the quality of tourism products and services do not meet the expectations of tourists	Moutinho (1987), Solomon (1999), Boksberger et al. (2007), Liu and Gao (2008), An et al. (2010), Hu (2011), Zhang (2012), Cetinsoz and Ege (2013), Baker (2014) and Casidy and Wymer (2016)
Natural disasters risk	Refer to the possibility of occurring natural disasters and accidents such as earthquakes, tsunamis, flash floods	Maser and Weiermair (1998), Dolnicar (2005), Fuchs and Reichel (2006), Chen et al. (2009), An et al. (2010) and Fuchs and Reichel (2011).
Time risk	Refer to the possibility of taking too much time or waste time due to checking in, schedule delays and other conditions	Roehl and Fesenmaier (1992), Sonmez and Graefe (1998), Boksberger et al. (2007), Li (2010), Hu (2011) and Liu et al. (2013)
Terrorism and war risk	Possibility of being involve in a terrorist incident, war and national riots, and the target of terrorist organizations	Sonmez and Graefe (1998), Lepp and Gibson (2003), Chen et al. (2009) and Rittichainuwat and Chakraborty (2009)
Food safety risk	Refer to the problem of strange, unhealthy and unhygienic food offered at the destination	Maser and Weiermair (1998), Lepp and Gibson (2003), Fuchs and Reichel (2006, 2011) and Cui et al. (2016).
Equipment risk	Any dangers caused by any equipment's failure to perform properly during vacation, such as stop operation, accommodation, traffic accidents	Roehl and Fesenmaier (1992), Sheng-Hshung et al. (1997), Tsaur et al. (1997) and Sonmez and Graefe (1998)
Satisfaction risk	Possibility that travel experience will not provide personal satisfaction and self-satisfaction	Roehl and Fesenmaier (1992), Sonmez and Graefe (1998) and Cetinsoz and Ege (2013)
Political risk	Possibility of unstable political chaos, and involved in the political turmoil of the visited country.	Sonmez and Graefe (1998), Lepp and Gibson (2003), Dolnicar (2005) and An et al. (2010)
Service quality risk	Refer to the risk occur due to inferior quality of tourism product	Fuchs and Reichel (2006, 2011), Liu et al. (2013) and Cui et al. (2016)
Crime Risk	Crime breeds confusion and personal safety is threatened by becoming the target of criminals	Maser and Weiermair (1998) and Lepp and Gibson (2003) and Li (2010)
Travel risk	Travel risks occur due to increase of accommodation cost, tour package and air fare	Baker (2014), Maser and Weiermair (1998) and Rittichainuwat and Chakraborty (2009)
Disease risk	The possibility of affecting by various epidemic disease such as Mars, SARS, Anthrax, Aids, Bird flu, Plague and so on.	Maser and Weiermair (1998) and Rittichainuwat and Chakraborty (2009)
Cross-cultural differences risk	Refer to the language, hostile attitude, communication and acceptance barriers	Maser and Weiermair (1998) and Lepp and Gibson (2003)
Property risk	Property loss include purchase the wrong tourism product, theft and luggage lost	Dolnicar (2005) and Liu and Gao (2008)
Facilitate risk	The risk is associated with the availability and safety of all kinds of facilities and equipment during the journey	Zhang (2012) and Liu and Gao (2008)
Opportunity loss risk	The probability to miss the chance of enjoying alternative when tourists buy one tourism product	Hu (2011)
Security risk	Refer to the threat of unexpected law and order imposed at tourist destination for tourists	Liu and Gao (2008)
Medical risks	Medical risks refer to having access to healthcare services in a timely manner or not	Liu and Gao (2008)

**Table 4. Rank order of risk dimensions according to their degree of significance in different tourism process**

Discipline	Areas	Risk dimensions
Nature based tourism	Land scenery, waters scenery, biological landscape, astronomer and climatic scenery	(i) Physical risk (ii) Performance risk (iii) Psychological risk (iv) Financial risk (v) Natural disaster
Historical and cultural sites	Sites and ruins, construction and facilities, historic or large cities and their cultural facilities such as museums and	(i) Equipment risk (ii) Physical risk (iii) Social risk (iv) Psychological risk (iv) Security risk
Adventure tourism	Hill trekking, Rafting, Kayaking, Backpacking, Mountain climbing, Sailing, Snowshoeing, Spelunking, Sky diving, Surfing and hang-gliding	(i) Equipment risk (ii) Physical risk (iii) Psychological risk (iv) Social risk (v) Financial risk
Tourism commodity	Transportation, Accommodation, Equipment, Souvenir, Handicrafts	(i) Financial risk (ii) Performance risk (iii) Physical risk (iv) Time risk (iv) Psychological risk
Cultural tourism activities	National day celebration, Festivals, Photography competition, Culinary competition, rituals, theatres	(i) Financial risk (ii) Physical risk (iii) Psychological risk (iv) Social risk (v) Safety risk

Note: NB = Risk dimensions are rank ordered according to the degree of tourist risk perceptions found in the relevant tourism attractions, resources, and process.

Therefore, current paper is aiming to address this gap and to facilitate better understanding of the destination risk dimensions and its consequences from the tourist perceptions perspective. *The purpose of this study is twofold: first, to identify the common perceived risk dimension associate with a tourist destination referred to in the literature; and second, to seek evidences for structuring of risk dimensions along with tourist satisfaction, attitude towards revisit, and revisit intention together in a single framework.* The first section of this paper presents various definitions and dimensions of risk that provides destination marketers with a deeper understanding of various risk dimensions, dominant risk dimension associate with travel destinations and risk degree involved in different tourism attractions. Second section of this paper offers the proposed conceptual framework and its propositions that portrays the integrated knowledge of destination risk dimensions and its consequences on tourist post behavioural intentions along with other generic concepts of consumer behaviour. The final section deals with the summary, conclusions and future research guidelines.

## 2. Literature review

### 2.1. The concepts of “risk perceptions”

In marketing, Bauer (1960) first introduced the concept of risk when he observed that “consumer behaviour involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant”. Since then risk concept has received regular interest in consumer behaviour research (Dolnicar, 2005). Consumers’ risk perceptions towards the products and services are now considered as the central point of their choice, evaluation and behaviour (Campbell & Goodstein, 2001; Dowling, 1999; Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998). To date, scholars’ tend to define risk perception as the consumers’ perceptions of uncertainty and the magnitude of the possible adverse consequences (Sohn et al., 2016). Consumer behaviour research usually defines risk perception in terms of uncertainty and consequences (Campbell & Goodstein, 2001), and perceived risk increase the level of uncertainty as well as the chance of greater negative consequences

(Campbell & Goodstein, 2001; Fuchs & Reichel, 2006, 2011). Broadly, risk perception is generally used to describe a concept of people's attitude and intuitive judgement towards risk (Cui et al., 2016).

Although the concept of risk perception is initially introduced to the consumer perception behavioural studies by Bauer (1960), the concept of "tourism risk perception" came into being and widely researched by the scholars in the 1990s. In tourism studies, Roehl and Fesenmaier (1992) have pioneered the research on tourist risk perception and argued that every travel process, tourist destination and tourism activities involve a certain level of risks (Cetinsoz & Ege, 2013). Since then, a number of studies (e.g. An et al., 2010; Boksberger, Bieger, & Laesser, 2007; Casidy & Wymer, 2016; Cetinsoz & Ege, 2013; Chen et al., 2009; Chew & Jahari, 2014; Cui et al., 2016; Dolnicar, 2005; Lepp & Gibson, 2003; Sonmez & Graefe, 1998; Tsaor, Tzeng, & Wang, 1997; Zhang, 2012), have used the concept of risk perception to explain the appellation of risk perception dimensions and their connotation in different contexts of travel and tourism. Since Bauer's (1960) work, a little discordance has been found in approaches to explain the concept of perceived risk and its dimensions amongst researchers. Still these different views and explanations of the concept of risk perception are considered as a probable loss resulting the choice of tourism offers with uncertainty (Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998).

## **2.2. Risk dimensions associated with tourism process and activities**

Tourism is a service-oriented industry. As a part of service sectors, tourism poses service-specific characteristics such as intangibility, inseparability, variability and perishability that intensify the perceived risk compared to goods (Grönroos, 2007; Lovelock & Wirtz, 2007; Zeithaml & Bitner, 1996). Moreover, alongside the aforementioned attributes, tourism "product" is exposed to particular factors, such as crime, political unrest, bad weather, natural disasters, terror, disease, unfriendly locals, airport personnel on strike and inedibility of local food. These factors often play role to change tourist's risk perception level while they plan to visit a particular travel destination or perform any tourism activities (Fuchs & Reichel, 2006, 2011; Pizam & Mansfeld, 1996; Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998; Tsaor et al., 1997; Witt & Moutinho, 1995). A number of researchers in tourism studies categorized risk in various ways but all they came up with that there are two types of risks named physical and psychological risks to a person while performing tourist activities (Sohn et al., 2016). These risks may be brought about by various factors including individual events (illness or injury), environmental circumstances (warfare, weather, etc.) and social contact (culture shock, cross-cultural differences).

Moutinho (1987) suggested that physical, functional, financial, psychological and social factors are connected to travellers' risk perceptions while they make travel decisions. Alongside these, researchers have focused on four major risk factors pertinent to tourism, (i) war and political instability, (ii) health concerns, (iii) crime, (iv) terrorism or terrorists attack. In recent years, the influence of natural disasters on tourism demand has also received attention (Floyd, Gibson, Pennington-Gray, & Thapa, 2003). Of these, risks associated with potential terrorist attacks and political instability has been identified as particularly influential in changing travel intentions, even amongst experienced travellers (Artuğer, 2015).

In travel and tourism research, Moutinho (1987) found five factors which are associated with the travellers' risk perceptions while Roehl and Fesenmaier (1992) expand these to seven factors such as physical, financial, time, equipment, satisfaction, social and psychological. Sonmez and Graefe (1998) extended this work by adding risk factors that are likely to predict destinations to avoid such as health, political instability and terrorism. Tsaor et al. (1997) brought out all risk factors into two umbrellas: physical risk, referring to the possibility that an individual's health is at risk, injury and sickness and equipment risk, referring to the dangers arising from the malfunctioning of equipment, such as unsafe transportation. Likewise, a number of researchers (e.g. Chen, Qiao, & Liu, 2009; Moreira, 2007; Sheng-Hsiung, Gwo-Hsiung, & Kuo-Ching, 1997; Wu, Wang, & Li, 2001) categorized risk factors associated in two shorter dimensions like physical and equipment, natural and artificial, invisible and catastrophe, terrorist attack and public health risk incorporating a wide variety of risk

items. On the contrary, other researchers (e.g. Hu, 2011; Li, 2010; Liu & Gao, 2008; Zhang, 2012) defined these factors separately referring to their individual name and features. Fuchs and Reichel (2011) defined crime, terrorism, political unrest and congestion as human-induced risk whereas Hu (2011) defined them individually. Li (2010) defined personal risk and health risk in a different form while Cetinsoz and Ege (2013) define both of them together in a new name physical risk. Rittichainuwat and Chakraborty (2009) incorporated other type of risk factors such as lack of novelty, travel inconvenience, deterioration of tourist attractions in their studies which are not considered by other studies.

### **2.3. Appellation of risk dimensions and their connotation used in tourism literature**

Although the concept of risk perception has been explained by the researchers in slightly different ways in their studies, the components of risk perception are described in both the consumer behaviour and tourism literature consistently (An et al., 2010). As a result, the number of risk dimensions is being increased over the time, even if these were limited to one or two (e.g. Mayo & Jarvis, 1981; Moreira, 2007; Wu et al., 2001). Mayo and Jarvis (1981) categorized perceived risk into functional risk and psychological risk, thereafter the number of dimensions extended to a list of 43 risk factors with a holiday package ranging from serious occurrences such as natural disasters to trivial matters such as not joining in activities (Mitchell, Davies, Moutinho, & Vassos, 1999). In travel and tourism, with the increasing number of risk perception dimensions, researchers have tried to define these dimensions form different aspects of tourism activities. Because some risk factors are associated with the specific tourism offers and activities. Due to different characteristics, a walking traveller may not experience the same type of risk factors as like an adventure tourist experienced.

To date, researchers' efforts to explain the appellation of risk dimensions and their connotation has found a little discordance even if the similar dimensions used or tested empirically in different contexts of travel and tourism. However, these different views and explanations of the risk dimensions pose a quite similar approach to explain it as a probable loss that results in choice with uncertainty which influences the tourist behaviour even if such a risk does not exist in reality (Quintal et al., 2010; Reichel, Fuchs, & Uriely, 2007). Moreover, over the years, the number of risk dimensions used has increased in tourism studies, and the researchers found new risk dimension associate with the tourism offers. Nonetheless, the evidence in tourism literature shows that researchers have common tendency to use particular risk dimensions such financial risk, physical/health/personal risk, social/socio-psychological risk, psychological risk, functional/performance risk. Therefore, these dimensions are still reported to apply in different context of tourism to assess tourist risk perception in behavioural aspects.

### **2.4. Dominant risk dimensions used in different tourism disciplines**

Tourism risk perception consisting of multiple dimensions mainly refers to negative consequences or negative impact that may occur during travel (Cui et al., 2016). According to scholars' studies on tourism risk dimensions in recent years, tourists risk perception is often summarized as five to seven dimensions. Five dimension of risk consisting of financial/economic risk, psychological risk, performance risk/equipment risk, health risk/physical risk and social risk. Alongside these dimensions, six-dimension of risk included another one named time risk, and seven-dimension risk also added opportunity loss. In recent years, tourism studies have considered safety including the social, natural and human induced environment, and the security situation of "food, housing, transportation, shopping, entertainment" in tourist destinations (Atila & Fisun, 2007; Cui et al., 2016; Fuchs & Reichel, 2011; Li, 2010; Zhang, 2009). The intensity level of the safety and security risks varies depending on the nature of tourism products and services consumed and the characteristics of traveller. Since most of the tourists try to avoid risky situation while others think that it could happen if we stay at home (Lepp & Gibson, 2003). Hence, the level of satisfaction increases if the adventure's tourists got risky and exciting experience (Imboden, 2012). Same is true for novelty seekers who like to visit new places and experiences even if the new experience is risky (Rittichainuwat & Chakraborty, 2009). However, after thoroughly reviewing the relevant literature we can summarize the dominant risk dimensions which commonly influence different types of tourism offers and attractions.

Table 4 presented the commonly used risk dimensions that influence traveller behaviour when they visit different tourism attractions, resources and process. Then, the risk dimensions are ordered according to their significance perceived by tourists in different tourism process. It is found that physical risk is most important for natural tourism, followed by performance risk, psychological risk and natural disaster risk. Secondly, the equipment risk is also the most important for visiting cultural tourism, followed by physical risk, performance risk, psychological risk and terrorism risk. Thirdly, tourists may be more concerned about the financial risk when they purchase tourism commodity, and participate in cultural tourism activities. Finally, for adventure tourism, equipment risk is the most important concern of tourists, followed by physical risk, financial risk, social risk and performance risk.

### 2.5. Risk perceptions used as the antecedents of behavioural intention

In accordance with the literature, travellers risk perceptions influence their tourism product choice, purchasing and behavioural intention to repurchase in the future (An et al., 2010; Artuğer, 2015; Cetinsoz & Ege, 2013). Moreover, tourists' risk perceptions have effect on destination image (e.g., Chew & Jahari, 2014; Lepp et al., 2011; Sonmez & Graefe, 1998), satisfaction (e.g., An et al., 2010; Jin et al., 2016; Meng & Elliott, 2008; Quintal et al., 2010), attitude (e.g., Baker, 2014; Liu et al., 2013; Lu et al., 2016; Quintal et al., 2010), purchase and repurchase intention (e.g. Artuğer, 2015; Cetinsoz & Ege, 2013; Chew & Jahari, 2014; Sohn et al., 2016) (Table 5).

**Table 5. Risk perceptions and their consequences in consumer behaviour**

Author (s)	Dimensions/items	Consequences
Roehl and Fesenmaier (1992)	Multi-dimensions with multi items	Behavioural intention
Sonmez and Graefe (1998)	Multi-dimensions with multi items	Revisit intention
Fuchs and Reichel (2006)	Multi-dimensions with multi items	Overall risk perception, Visit intention
Johnson et al.(2006, 2008)	Single-dimension with multi items	Commitment and Satisfaction
Lobb et al. (2007)	Single-dimension with multi items	Attitude, Intention to purchase
Rittichainuwat and Chakraborty (2009)	Multi-dimensions with multi items	Repeat visit behaviour
Quintal and Polczynski (2010)	Single-dimension with multi items	Satisfaction, Revisit intention
An et al. (2010)	Multi-dimensions with single item	Satisfaction, Repurchase intention
Quintal et al. (2010)	Single-dimension with multi items	Attitude towards visiting, Intention to visit
Fuchs and Reichel (2011)	Multi-dimensions with single item	Motivation to revisit
Lepp et al. (2011)	Multi-dimensions with multi items	Destination image, Behavioural intention
Liu et al. (2013)	Multi-dimensions with single item	Attitude, Purchase intention
Cetinsoz and Ege (2013)	Multi-dimensions with multi items	Revisit intention
Chew and Jahari (2014)	Multi-dimensions with single item	Cognitive image, Affective image, Intention to revisit
Hossain et al. (2015)	Multi-dimensions with single item	Satisfaction, Perceived destination loyalty
Casidy and Wymer (2016)	Multi-dimensions with multi items	Satisfaction, Loyalty, willing to pay premium price
Sohn et al. (2016)	Multi-dimensions with multi items	Perceptual evaluation, overall satisfaction, Need for variety, Behavioural intention
Jin et al. (2016)	Single-dimension with multi items	Customer satisfaction, Customer loyalty

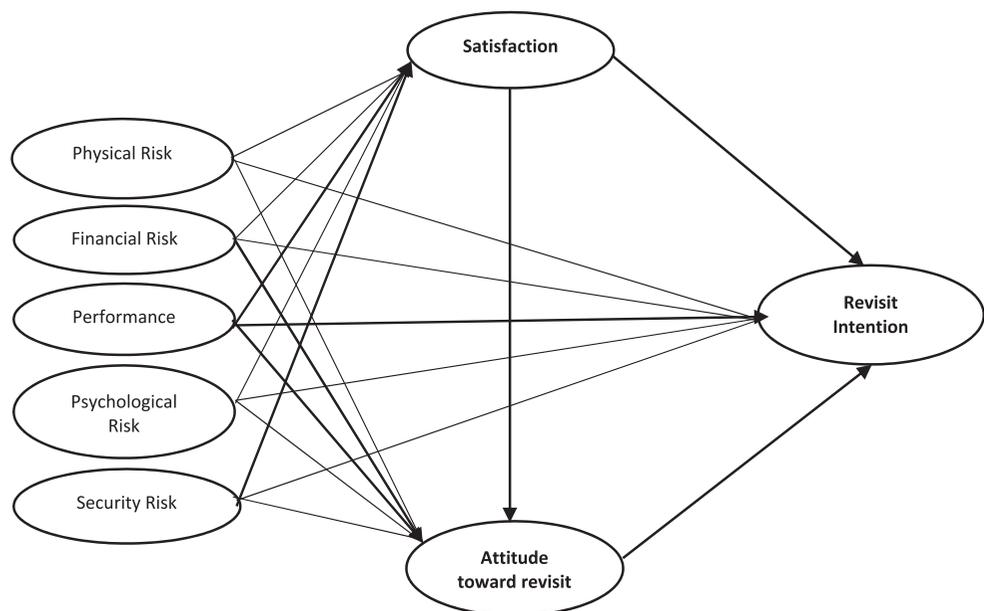
### 3. Tourist risk perceptions and revisit intention: Conceptual framework

Risk perception is the subjective expectation and evaluation of loss which influence consumer behaviour (Quintal et al., 2010; Reichel et al., 2007). After reviewing a wide range of literature, it is evident that financial risk, physical/health/personal risk, social/socio-psychological risk, psychological risk, functional/performance risk and security risk dimensions are commonly used by the researchers to assess, evaluate and measure risks associate with different type of tourism products and attractions (Table 3). Physical risk and financial risk are mostly used than other types of risk dimensions. Similarly, risk factors are rank ordered according to their level of significance found in different type of tourism attractions, resources and groups (Table 4). Although the risk degree associate with a specific risk dimension varies depending on the nature of tourism, tourism products consume and the characteristics of tourist, they have been rank ordered considering the degree of perceived risk associate with them. It is seen that physical risk, equipment risk, social risk, financial risk, psychological risk and security risk dimensions have occupied top position in the list even though they do not have the same position. So, we pick the commonly used risk dimensions to form a basis of theoretical foundation to assess tourist risk perception and their effect on behavioural intention to revisit a particular destination (Figure 1).

#### 3.1. Tourist risk perceptions and satisfaction

In tourism research, the term satisfaction has conceptually been viewed as the tourist's emotional state or extent of overall pleasure after experiencing the trip (Quintal & Polczynski, 2010; Sanchez, Luis, & Rosa, 2006). It is regarded as a post-purchase or post-consumption measure of each and entire attributes of a travel destination (Kozak, 2001; Um, Chon, & Ro, 2006). Indeed, customer risk perceptions and satisfaction share a common influence from consumption experience (Johnson, et al., 2006; 2008), and risk perceptions has rarely been used as an antecedent of customer satisfaction (Szymanski & Henard, 2001), even though other forms of satisfaction such as expectations of product performance have been used as an antecedent in this context (Johnson et al., 2006). Researchers believe that service providers may have control over service quality up to the expectation level of consumer (Hossain et al., 2015), nevertheless due to the prevalence of different type of risks, overall satisfaction with service is outside the provider's control (Lee, Petrick, & Crompton, 2007). Therefore, the direct effects of risks on satisfaction with service are still under investigation (Johnson et al., as, 2006). Customer perceptions of risks arising from their experiences with products and services may influence their satisfaction either positively or negatively by means of general antecedents (Johnson et al., 2008).

Figure 1. The conceptual framework of the study.



In literature, empirical findings prove both the significant and non-significant negative relationship between perceived risks and satisfaction (Quintal & Polczynski, 2010; Sohn et al., 2016). Chaudhuri (1997) found a strong relationship between customer risk perceptions and negative consumption emotions, these emotions may also have direct influence on satisfaction and dissatisfaction (Mano & Oliver, 1993). Sweeney, Soutar, and Johnson (1999) claim that particular risk factors such as performance, financial and time risk are highly related to post-purchase evaluations that may influence customer value perceptions negatively. Similarly, a high level of perceived risk decreases a traveller's satisfaction and also negatively influences customer repurchase intention (Wirtz & Mattila, 2001). Johnson et al. (2006) explore that perceived risk has a negative effect on the satisfaction of customers with the performance of a cultural organization. Their findings indicate that customers who perceived low risk with the offerings are likely to be lenient in their overall satisfaction. Bennett et al. (2005) claims that while the perceived risk is high in purchase, the post consumption disconfirmation drive satisfaction. These findings are also supported by Li and Murphy (2013) where in common risk factors may negatively impact customers' satisfaction ratings.

Satisfaction is derived from experience with the services and the level of the intensity ultimately mitigate the perception of risk (Jin et al., 2016). Customers who are less likely to engage in risk assessment have the more satisfying experiences (Johnson et al., 2008). The substantial negative relationship between risk factors such as performance, financial and time risk, and satisfaction was further strengthened by Johnson et al. (2008). These findings suggest that if the perceived risk decreases, satisfaction increases (Meng & Elliott, 2008). An et al. (2010) provide an insight for airline companies strategic planning by investigating the effects of perceived risk factors such as natural disasters risk, political risk, physical risk and performance risk on the repeat travellers' satisfaction and repurchase intention. The empirical results show that each risk factor affects travel satisfaction and repurchase intention differently. Jin et al. (2016) found that perceived risk factors such as information risk, performance risk and functional risk have a negative impact on customer satisfaction although other factors such as brand prestige and trust have positive effect on it.

Nevertheless, perceived risk sometimes posits the moderating effect on the relationship between satisfaction and its other antecedents and outcomes (Casidy & Wymer, 2016). Customer's perceptions of service value decrease if the perceived risk of service malfunction increases which diminishes the positive effect of service value on customer satisfaction (Beneke et al., 2013; Tam, 2012). Perceived risk moderates the relationship between trust and satisfaction (Paulssen, Roulet, & Wilke, 2014). It is argued that in low risk situation, satisfaction alone can be the strong predictor of loyalty than other determinants (Paulssen et al., 2014). Casidy and Wymer (2016) found that financial, performance, social and psychological risks have significant negative impact on the relationship between satisfactions and willingness to pay premium price for brand name hotel. These findings are also consistent with prior research that emphasized the importance of customer satisfaction particularly in risky circumstances with other antecedents as a determinant of frequent purchase intention (Anderson & Mansi, 2009; Fornell et al., 2010).

- 1a. Physical risk negatively influence tourist satisfaction with the tourism offers
- 1b. Financial risk negatively influence tourist satisfaction with the tourism offers
- 1c. Performance risk negatively influence tourist satisfaction with the tourism offers
- 1d. Psychological risk negatively influence tourist satisfaction with the tourism offers
- 1e. Security risk negatively influence tourist satisfaction with the tourism offers

### **3. 2. Tourist risk perceptions and attitude towards revisit**

Generally, risk in marketing is viewed as customer's subjective feeling of uncertainty that the consequences of a potential purchase will be either favourable or not favourable (Cox, 1967). If the perceived probability of loss associated with a purchase is high, customer will show negative attitudes towards the purchase (Quintal et al., 2010). Therefore, as it causes an expectation of a probable loss, it is likely to influence individual's attitudes towards a behaviour negatively. Perceived risk may be outweighing reality, travellers may or may not fully realize while travelling a particular destination,

in forming attitude towards destinations. As a result, travelling risk should be studied in relation to tourist attitudes (Baker, 2014). In travel and tourism marketing, understanding the relationship between tourist risk perceptions and tourist attitude is crucial for destination marketers with a view to devise promotional strategies (Baker, 2014). Several studies (e.g. Baker, 2014; Campbell & Goodstein, 2001; Liu et al., 2013; Lobb et al., 2007; Lu et al., 2016; Quintal et al., 2010) have been found supporting this relationship in a variety of contexts.

Campbell and Goodstein (2001) conducted a study to investigate the effect of perceived risk on consumer product evaluation incongruity and found that low risk perception leads consumer stimulation to evaluate the product positively while high risk perception leads consumers to become more conservatives to purchase the product. Similarly, a number of prior studies (e.g. Chang et al., 2005; Vijayarathy & Jones, 2000) have revealed that risks factors associated with the product and service negatively influence consumers' attitude and or purchase intention. Lobb et al. (2007) claim that customers' risk perception with the food safety affects their attitude and attitude emerges as the antecedent of intention to purchase, behavioural intention. Here, attitude to behaviour is considered as being conceptually different from the broader concept of attitude towards an object. In addition, Quintal et al. (2010) propose that perceived risk factors such as financial loss, performance loss, physical loss, psychological loss, social loss and convenience loss influence negatively tourists' attitudes towards visiting Australia, South Korea and Japan. The relationship between risk factors, customer attitude and behavioural intention entertain that individual perceived risks entailed in a behaviour will influence his or her attitude towards the behaviour as well as intent to engage in that behaviour (Chi, Yeh, & Hung, 2012; Faqih, 2013).

Baker (2014) opined that traveller's risk perception may cause travel anxiety towards a destination, which leads traveller's negative attitude towards a destination, this is likely to produce negative results for the travel decision-making. Individuals' different perceptions of risk factors associated with the object may influence their intention to engage in leisure activities differently (Lu et al., 2016). Therefore, the findings of prior studies show that all risk dimensions do not show the same direction towards the behaviour. Liu et al. (2013) have made an attempt to test how perceived risks including financial risk, product risk, psychological risk and time risk influence customer's attitude to group-purchase and purchase intention. The findings reveal that product risk and psychological risk significantly affect consumers' attitudes and purchase intention. These findings were further supported by Lu et al. (2016) where it has been established that the influence of high or low perceived risk do not influence the relationship between attitude and behavioural intention. The relationship between perceived risk, attitude and behavioural intention has been empirically hypothesized and tested as being also principally connexion determinant in prior studies.

- 2a. Physical risk negatively influence tourist attitude towards repurchase the tourism offers
- 2b. Financial risk negatively influence tourist attitude towards repurchase the tourism offers
- 2c. Performance risk negatively influence tourist attitude towards repurchase the tourism offers
- 2d. Psychological risk negatively influence tourist attitudes towards repurchase the tourism offers
- 2e. Security risk negatively influence tourist attitude towards repurchase the tourism offers

### **3.3. Tourist risk perceptions and revisit intentions**

Tourism literature demonstrates that the number of research works regarding the views of repeat visitors has been increasing significantly. In this context, several studies (e.g. Artuğer, 2015; Cetinsoz & Ege, 2013; Chew & Jahari, 2014; Sohn et al., 2016) have been conducted to elicit the major risk factors perceived by tourists with travel destinations, and their impact on tourists' repeat visit behaviour. These studies show that tourist risks perceptions have an impact on the travel behaviour of tourists and their intention to revisit a destination in the future. Sonmez and Graefe (1998) investigated how different risk types such as equipment, financial, health, physical, political stability, psychological, satisfaction, social, terrorism and time affected tourists' future travel plans for different destinations, focusing mainly on political unrest and terrorism. Results exposed perceived risks and safety as stronger predictors of avoiding revisit plans to Asia, South Africa, Middle East and Africa

because of the high risk of terrorism and political unrest. Likewise, perception of high risk clearly affects tourists' behaviour if tourists perceive that a destination is likely to be a target of attack, they tend to avoid it and cancel the next travel plans (Crompton, 1992; Floyd et al., 2003; Kozak et al., 2007).

Similarly, Qi et al. (2009) found that violence risk and socio-psychological risk had significantly negative impacts on participants' intention to re-visit China. Even though it is not statistically significant, risk factors such as personal safety, cultural risk, violence risk and socio-psychological risk were negatively predictive of the intention to attend the Olympic Games in China. Similarly, Rittichainuwat and Chakraborty (2009) reveal travellers' perceptions on terrorism, travel cost, disease and travel inconvenience varies if they are first time or repeat, and their risk perceptions influence their repeat visit intentions. An et al. (2010) focused that the risks associated with natural disasters, politics and performance affect whether tourists will revisit or not revisit. The results, moreover, show that each risk factor affects travel satisfaction and repurchase intention differently. Cetinsoz and Ege (2013) conducted a study to find out how the risk level perceived by the tourists visiting Alanya during their stay affected their revisit intention and found physical risk, satisfaction risk and time risk negatively affect tourist revisit intention. Quintal et al. (2010) also made similar claim in prior studies that perceived risk influenced negatively tourists' attitudes towards visiting Australia, South Korea and Japan.

Lee and Chi (2014) carried out a study to reveal whether the perceived risk of falling rocks would have an impact on the tourists' intention to revisit. The results show that tourist risk perceptions of falling rocks was not directly responsible for having an impact on the intention to revisit although it did have a non-direct impact. Likewise, Chew and Jahari (2014) study with Malaysian tourists who had visited Japan before and concluded only perceived physical risk affects their intention to revisit. The empirical findings of Artuğer's (2015) study demonstrate that the socio-psychological risk, time risk, physical risks, financial risks and performance risk perceived by foreign tourists during their holiday in Marmaris did have an impact on their intentions to revisit Marmaris district of Mugla province in Turkey. In short, a quite number of studies (e.g. An et al., 2010; Artuğer, 2015; Cetinsoz & Ege, 2013) have been found to justify the relationship between tourists' risk perception and their revisit intention in different tourism and socio-cultural contexts. Most studies found a negative relationship between tourists' risk perception and their revisit intention.

- 3a. Physical risk negatively influence tourist revisit intention
- 3b. Financial risk negatively influence tourist revisit intention
- 3c. Performance risk negatively influence tourist revisit intention
- 3d. Psychological risk negatively influence tourist revisit intention
- 3e. Security risk negatively influence tourist revisit intention

### **3. 4. Tourist satisfaction, attitude towards revisit and revisit intention**

In literature, customer satisfaction has been discussed as the antecedents and consequences of other behavioural constructs, most frequently with behavioural intention and customer loyalty (Ekinci, Dawes, & Massey, 2008; Yoon & Uysal, 2005). Moreover, both the customer satisfaction and the attitude are being used in the consumer behaviour as the determinant of behavioural intention (Huang, 2007). However, very little attention has been paid to investigate the relationship between tourist satisfaction and tourist attitude conceptually and empirically (Choi & Choo, 2016). Perhaps, assuming the similar or overlapping nature between satisfaction and attitude constructs, the relationship between two constructs has not been studied extensively (Huang, 2007). However, despite having the conceptual similarity between satisfaction and attitude constructs, a significant causal relationship may exist between them (Choi & Choo, 2016; Ekinci et al., 2008; Huang & Hsu, 2009).

In consumer behaviour literature, a number of studies (e.g. Anderson & Sullivan, 1993; Ekinci et al., 2008; Fornell, 1992; Huang & Hsu, 2009; Oliver, 1980; Olsen, 2002; Suh & Pedersen, 2010; Woodside, Frey, & Daly, 1989) have demonstrated customer satisfaction as one of the significant predictor of

customer attitude that influences behavioural intention. Oliver (1980) proposed that customers' satisfaction with the products and services has a positive influence on their attitude, and this attitude also significantly increases consumers' repeat purchase intention and loyalty. These findings were supported by the findings of Woodside et al. (1989), Fornell (1992) and Anderson and Sullivan (1993), who indicated that customer higher satisfaction with the company's offers brings greater loyalty, which is referred to a positive attitude towards the company's products. If the customers are more concerned about the quality of service providers, the level of their satisfaction with the company increased, which also results in positive attitude to spread word of mouth and repurchase intention (Beatty, Morris, James, Kristy, & Lee, 1996; Harris & Goode, 2004; Johnson, et al., 2006; Olsen, 2002). Chen (2012) claims that the higher the satisfaction, the more positive the consumer's attitude and, subsequently, the higher the consumer's loyalty. Choi and Choo (2016) reveal that consumers' perceived social benefit and functional benefit positively influenced their satisfaction with the sales person, and the satisfaction has a significant positive effect on consumers' brand attitude to buy foreign brand.

In travel and tourism literature, the relationship between satisfaction and revisit intention has been discussed frequently; however, less attention has been paid to discuss the relationship between tourist satisfaction and tourist attitude (Huang, 2007). A number of studies in this context of (e.g. Kozak & Rimmington, 2000; Yoon & Uysal, 2005) have demonstrated that satisfied tourists are more likely to spread word-of-mouth and willingly recommend a destination to other people, which may mean that satisfied visitors hold a positive attitude towards the destination and future visitation (Huang, 2007). Tian-Cole and Crompton (2003) opined that service quality is the cognitive belief about a destination's features or attributes, while satisfaction is the affective psychological response to a destination. Both overall service quality and overall satisfaction contributes to the formation of attitude, which includes both cognitive and affective components. The findings of Huang and Hsu (2009) postulate that mainland Chinese visitors' satisfaction had a strong positive effect on their attitude and intention towards revisiting Hong Kong. In this study, attitude towards revisit was found to play a significant mediating role in the total effect of satisfaction and revisit intention. Suh and Pedersen (2010) reveal that fantasy sports participant's attitude mediates the relationship between satisfaction and actual use.

Service quality influences participant's satisfaction, satisfaction influences attitude, and in turn participant's attitude affects their actual use. Here, attitude towards revisit is a conditioning behavioural intentions towards a destination (Deng & Li, 2013; Lee, Lee, & Lee, 2005), that is conceptualized as an affective predisposition to future visitation of a destination (Huang & Hsu, 2009). The attitude towards revisit might propel travellers towards a behaviour or repeal them away from that behaviour (Deng & Li, 2013). This finding is analogous to the theory of planned behaviour (Ajzen, 1991) that postulates the important theoretical explanation for the relationship between tourist attitude and behavioural intention.

- 4a. Tourist satisfaction has a positive influence on their attitude to revisit
- 4b. Tourist satisfaction has a positive influence on their revisit intention
- 4c. Tourist attitude to revisit has a positive influence on their revisit intention

#### 4. Methodological issues

In tourism, each tourist has a certain risk perception threshold that they can bear or carry. When tourist risk perception level exceeds this threshold, it affects their behavioural intention (Dirk, 2003). However, tourist cannot assess the negative results properly while making travel decision even after making the visit (Chen et al., 2009). Therefore, assessing the tourist risk perceptions and their effect on behavioural intention are two important issues (Cui et al., 2016). Currently, the assessment process of tourism risk perception and their effect on tourist behaviour fairly rely on both the quantitative and the qualitative research. However, quantitative studies continue to be dominant particularly for the assessment of risks and their impact in tourism context, with approximately 70% of the prior research conducted in this way. In addition, data acquisition and data processing are two widely

used methods for tourism risk perception assessment. Moreover, researchers use questionnaire to get quantitative data, supplemented by interviews and statistics. Based on the particular research context, questionnaires are distributed as the most commonly used approach by personally administered or by mail or more recently online (Table 6).

Currently, a number of statistical analysis tools and techniques, mainly descriptive statistics, correlation analysis, regression analysis, variance analysis, cluster analysis, factor analysis and structural equation modelling are being widely used to explore the dimensions of risk perception, develop

**Table 6. Tourist risk perceptions: Research approach, methods and methodology**

Author (s)	Data sources and sample	Data processing
Roehl and Fesenmaier (1992)	Random sampling, Survey using drop and collect method (404)	Factor analysis, Cluster analysis
Sonmez and Graefe (1998)	Systematic random sampling, A mail survey (500)	Logistic regression analysis
Campbell and Goodstein (2001)	Two stage study, 67 managers in fully employed MBA programme	ANOVA, ANCOVA
Wu et al. (2001)	Personal administered questionnaire	Summary analysis, factor analysis, and geographic information systems
Myron, Heather, and Lori (2004)	Telephone survey, Statistical yearbook (365)	Principal component analysis, Regression analysis
Fuchs and Reichel (2006)	Stratified sampling, Face to face interview (776)	Factor analysis, Pearson Correlations
Johnson et al. (2006, 2008)	Random sampling, personal survey (401)	Confirmatory Factor Analysis-LISREL
Lobb et al. (2007)	Stratified random sampling, Face to face interview (533)	Ordered probit estimates
Liu and Gao (2008)	Snowball sampling method, Questionnaire survey	Correlation analysis, factor analysis, variance analysis and cluster analysis
Rittichainuwat and Chakraborty (2009)	Qualitative and Quantitative approach; Semi-structured interview; Self-administered questionnaire	MANOVA; Exploratory Factor Analysis; Confirmatory Factor Analysis
Chen et al. (2009)	Self-administered questionnaire	Factor analysis and multiple regression analysis
Zhang (2009)	Questionnaire survey, Statistical data	Correlation and variance analysis
Quintal and Polczynski (2010)	Quantitative approach; Convenience sampling techniques; Self-administered pen-paper survey (378)	Confirmatory Factor Analysis; Structural Equation Modeling (SEM)
An et al. (2010)	Simple random sampling, personal interview (270)	T-test, ANOVA, Regression analysis
Quintal et al. (2010)	Online panel survey (400)	Structural Equation Modeling (SEM)
Fuchs and Reichel (2011)	Stratified sampling, Face to face interview (760)	ANOVA, Cross-analysis, Post hoc Scheffe test
Lepp et al. (2011)	Online survey (286)	MANOVA
Li, Zhang, and Dong (2011)	Questionnaire survey	ANOVA, SEM
Liu et al. (2013)	Online based survey (578)	Correlation and multiple regression
Zhang (2012)	Personal administered survey	Multiple regression analysis
Chen and Zhang (2012)	Interview, Questionnaire survey	Significant analysis, one-way ANOVA and factor analysis
Cetinsoz and Ege (2013)	Quantitative approach, Simple random sampling (559)	Exploratory Factor Analysis; Multiple correlation analysis
Fuchs, G. (2013)	Depth interview (12), Questionnaire survey (579)	Factor analysis, discriminant analysis and coding instructions
Chew and Jahari (2014)	Online survey web link (278)	Confirmatory Factor Analysis; Structural Equation Modeling (SEM)
Hossain et al. (2015)	Random sampling; personal administered questionnaire (602)	PLS based Structural Equation Modeling (SEM)
Casidy and Wymer (2016)	Quantitative approach; Web-based survey (388)	Structural Equation Modeling (SEM)
Sohn et al., 2016	Quantitative; Self-administered survey questionnaire (564)	EFA; CFA; Structural Equation Modeling (SEM)
Jin et al. (2016)	Convenience sampling, self-administered questionnaires (398)	Structural Equation Modeling (SEM)

the specific constructs, to assess the validity of constructed scales, and to examine the relationship between risk dimensions and their consequences on tourist behaviour. And, the statistical software includes Excel, SPSS, SAS, AMOS and Visual FoxPro is being widely used to analysis the data. Recently, some researchers have applied GIS software to present the longitudinal distribution of tourist risk perception in the form of thematic maps. Therefore, this paper suggests using the quantitative approach with survey data to test the proposed model empirically.

### **5. Summary, limitations and future research directions**

Nowadays, tourists are more concerned about risk factors associated with travel destinations. As a result, the issue of tourist safety and security concern has received much attention by the scholars in travel and tourism studies even though the research on travel risk perception during travel started a couple of decade ago. Since then, scholars in tourism discipline have been putting effort to explore the characterization of tourism risk, dimensions of risk, the evaluation of risk perception, and its impact on traveller behavioural intention from different perspectives. However, the common dimensions to develop a basis of risk perception for travel and tourism studies and their effect on traveller attitude, satisfaction, and behavioural intention to revisit have not been evidently directed in previous studies. The present paper intends to clarify the concept of tourist risk perceptions and highlight the different definitions generated for it from different point of view. In order to do so, prior research to highlight the true sense of the concept in both consumer behaviour and tourism has been presented. Also, an attempt to thoroughly review has been made to address the underlying contents constituting the key dimensions of tourist risk perceptions. Moreover, this paper provides a general framework containing the fundamental constructs of risk dimensions for building a common ground from the tourism perspective. Then, the theoretical propositions have been developed focussing the causal paths amongst the different constructs that present how destination's risk dimensions influence traveller attitude, satisfaction and behavioural intention.

Based on the literature reviewed, a general summary has been drawn to present the conclusion words step by step. *First*, tourist risk perception is a multi-dimensional concept consisting of various risk factors associate with travelling and travel destination. Tourist risk bearing ability and their perceptions vary depending on the characteristics of tourist as well as the travel destinations. *Secondly*, as tourist risk perception is a subjective matter, the evaluation results of risk perception differ even though the same objects are offered to all. However, according to the literature reviewed, primarily tourists are more concerned about physical risk, performance risk and financial risk, and then they pay more attention on the other risks such as psychological risk, time risk, safety risk and natural disaster risk. These findings support to meet our first research objective for this study. *Thirdly*, the empirical studies on tourism risk perception reveal that the correlation between risk perception and travel behaviour is negative in general aspects. However, lack of theoretical foundation is still evident presenting the relation amongst tourism risk dimensions with other generic concepts of behavioural science such as attitude, satisfaction and behavioural intentions in current literatures. Therefore, a longer effort has been made in the present paper to find out and summarize the relevant literatures with a view to develop a conceptual model. *Fourth*, since the relationship between the concept of satisfaction and attitude to revisit has been overlooked in prior literature due to similar and overlapping meaning, this paper put effort to make it clear that the attitude to behaviour is different than the broader concept of attitude discussed in consumer behaviour studies. Likewise, attitude to revisit and revisit intention also poses distinct meaning to represent behavioural direction to travel destinations. Also, a certain correlation has been found between the level of risk perception, attitude, satisfaction and behavioural intention in the literature. These findings are also addressing our second research objective where it is claimed to develop a conceptual model including the aforementioned factors. *Fifth*, in order to assess the traveller risk perceptions in tourism, researchers tend to apply multi-dimensional model that does not follow any fixed method. Research to address the

questions of what data are required to evaluate risk perception, the relevant questionnaire is first designed in line with the different tourism scenarios, then the “Likert scale” is typically used to quantify the underline dimensions of risk perception. Both the descriptive and the inferential statistical methods are widely used to process the results as well as to complete the evaluation of tourism risk perception. Finally, although the proposed conceptual model has yet to test and validate by any empirical research, this conceptual framework is about one step ahead presenting the new path and direction to assess the tourist revisit intention. The propositions and their integrative relationship of this conceptual model provide a foundation to direct future research in multiple contexts, particularly in tourism destinations.

The perceived risk at a travel destination has now been considered as one of the crucial role playing factors in the traveller’s decision-making (An et al., 2010; Cui et al., 2016; Roehl & Fesenmaier, 1992; Sonmez & Graefe, 1998). Moreover, tourists risk perception also affects their satisfaction, attitude to revisit and revisit intention (An et al., 2010; Horvat & Došen, 2013; Qi et al., 2009; Quintal et al., 2010). From the managerial perspective, assessment of tourist risk perception is important because providing better tourism offers are not enough to attract tourist as well as survive in the competitive tourism markets. If the tourism service providers fail to assess the level of risk associate with their offers, unable to deliver their offer with minimal risk, they will struggle to survive in the market place and in turn that will result in high customer turnover, decrease the market share, and losing the business profitability (An et al., 2010; Artuđer, 2015; Cetinsoz & Ege, 2013; Rittichainuwat et al., 2003). If the tourists find the tourism offers risky, and get bad experience then they would never plan to visit or buy this product in future, and even they would not refer it to others. By assessing the risks in tourism, destination marketers can apply risk minimizing and reduction strategies to create positive image of their tourism offers that will in turn spread more positive words to attract new tourists. In addition, assessment of the integrated relation amongst the risk, satisfaction, attitude and revisit intention also helps to secure tourist loyalty, create competitive advantage, and warrant more profitable business growth.

Since the past few decades a number of research works have been done to assess the risks associated with travel destination and their effect on tourist behaviour. However, assessing risk dimensions and their effect on the other antecedents of tourist behaviour is still under research. Due to lack of proper knowledge about the risks associated with their tourist destination as well as an integrated theoretical framework to address the issues properly, many tourism service providers fail to realize their customer expectations, experience and intention towards their offers. Therefore, developing a conceptual framework containing the tourism risk issues with the aforementioned factors and their empirical validation can yield more reliable results. Hence, future researches are needed to test and validate the proposed conceptual model in different tourism and socio-cultural contexts. This conceptual model only includes the common risk dimensions and their relation with satisfaction and attitude to revisit. Future researches are encouraged to incorporate other risk dimensions such as disaster risk, terrorism risk, loss of novelty seeking risk, opportunity loss risk and their impact on destination image and tourist behavioural intention. Since, the findings of prior studies show that the relationship of risk dimensions with tourist behavioural intention and other antecedences of behavioural intention is negative in almost all contexts. Therefore, our immediate future plan is to test the proposed model empirically in the context especially novelty seeking and adventure tourism activities where the school of thought claims positive relation between risk dimensions and tourist behaviour.

#### Declaration

I, on behalf of all the co-authors, declare that this paper has not been submitted fully or partially elsewhere to publish, and all authors have contributed and approved the current form of the manuscript to be submitted.

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