Research article

Destination image's mediating role between perceived risks, perceived constraints, and behavioral intention

Muhammad Umair Nazir *,1, Ida Yasin 2, Huam Hon Tat 2

Putra Business School, Malaysia

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ABSTRACT

This study aims to examine the effect of destination image, perceived risk, and perceived constraints on the behavioral intention of international tourists to revisit Pakistan. The study also seeks to assess the destination image's mediating role in the relationship between perceived risks, perceived constraints, and behavioral intention. A quantitative study with Partial least square structural equation modeling was used to investigate the research hypothesis. The data was collected from international tourists who were in Pakistan or who had visited Pakistan. The findings revealed that perceived risks and perceived constraints negatively impact destination image and behavioral intention. On the other hand, destination image has a positive impact on behavior. Moreover, the study also proved the mediating effect of destination image among the relations of perceived risks, perceived constraints, and behavioral intention. These findings indicate that sometimes it is difficult for destinations to overcome constraints, so destination managers should provide value-added services for substitutes. A positive destination image can overcome risks and constraints, so destination managers should also promote destinations besides mitigating risks. Literature has discussed the mediating effect of destination image in different contexts. However, studies are scarce investigating destination image's effect in alleviating perceived constraints and perceived risks through negotiation mechanisms.

1. Introduction

Understanding travelers’ preferences, behaviors, and interests are necessary for the global tourism industry (Al-Ansi and Han, 2019). Like many other service industries, the nature of the tourism product is intangible (Park et al., 2016). The experience is vulnerable to constraints, threats, and risks (i.e., terrorism, political turmoil, epidemic diseases, psychological trauma, less information, and language barriers). Such vulnerability and susceptibility can destroy the destination image (Chew and Jahari, 2014). Tourists make decisions based on destination image perception rather than reality (Beerli and Martín, 2004; Beritelli and Laesser, 2018; Kani et al., 2017). Tourist destinations compete on destination image perceptions (Baloglu et al., 2014). The destination’s actual attribute is closely represented through the destination image (Martín-Santana et al., 2017). Destination image combines different cognitive, affective, and conative destination images (Pike, 2002). Moreover, affective and cognitive destination images result in a holistic image of the destination (Baloglu and Mc Cleary, 1999).

Risk perception is another important factor in travel decision-making (Khan et al., 2017). With natural threats (i.e., natural disasters, epidemic diseases), safety and security issues have also become threatening tourists (Tavitiyaman and Qu, 2013). Epidemic diseases like COVID 19 and natural disaster incidences may exagerate perceived risks and obstruct international tourists’ arrival (Estrella et al., 2015). Travelers perceive several risks such as physical, health, social, financial, satisfaction, psychological, time, political, and terrorism risks which might affect their traveling behavior (Chew and Jahari, 2014; Khan et al., 2019; Perpina et al., 2019; Rittichainuwat and Chakraborty, 2009).

Besides destination image and perceived risks, travel constraints are essential in travel decision-making (Chew and Jahari, 2014; Khan et al., 2019). Perceived constraints are hinders in performing a particular behavior (Samdahl and Jekubovich, 2018). Constraints are not just the hinders but also attached with benefits and opportunities (Tan, 2017). Destination image can be both positive and negative in tourism research. A strong destination image can overcome perceived risks and perceived constraints (Beerli and Martín, 2004). Past research has revealed that...
tourists revisit the destination despite perceived risks and constraints (Chen et al., 2013; Lepp and Gibson, 2008; Tavitiyaman and Qu, 2013). Revisiting the destination and repeat visitors is the source of advertising through word of mouth and sales generation (Chi and Qu, 2008). Therefore, it is necessary to know about the revisit intention of tourists.

Besides the direct relation of destination image, various studies have used destination image as the mediator in different contexts, i.e., event image (Li et al., 2020), destination image on the relationship between couch surfing involvement and behavioral intention (Kuhzady et al., 2020). Despite the importance of destination image, perceived risks, and perceived constraints, very few studies are conducted to understand the interrelations. Formation of destination image through perceived constraints and perceived risks is the least study area (Beerli and Martin, 2004). The mediating role of destination image between the constructs has not been investigated previously.

Studies that have examined the relationship between destination image and behavioral intention have mixed findings (Huang et al., 2013; Ina and Ramlil, 2014; Jaliyvand and Heidari, 2017; Stylidis and Cherifi, 2018). The relation between perceived risk and behavioral intention has mixed findings (Al-Ansi et al., 2019; Kani et al., 2017; Sánchez et al., 2018). Recent research that tourists revisit the destination despite perceived risks and constraints contradicts various other research that tourists avoid revisiting risky destinations (Hung and Petrick, 2012; Lee et al., 2012; Tan, 2017).

Based on mixed findings, scarcity of knowledge, and escalating vulnerability of tourist destinations to travel risks, travel constraints, and adverse destination images, it is needed to address this research gap. Considering the substantial role of destination perceptions in evaluating revisit behavior, further investigation of revisit intention and travel perception is necessary. Thus, based on existing knowledge, the objectives of this study are to investigate (1) the effect of perceived risk, perceived constraints, and destination image on behavioral intention, (2) the effect of perceived risks and perceived constraints on destination image, and (3) the mediating role of destination image in the relation between perceived constraints, perceived risks and behavioral intention of international tourists.

2. Literature review

2.1. Destination image

Destination image is the combination of emotions, beliefs, ideas, and tourists’ impressions regarding the destination (Crompton, 1979). Destination image combines concepts, beliefs, mental representation, and assertions regarding a tourist’s destination not being physically there (Baloglu and McCleary, 1999). Destination image is categorized as affective, cognitive, and conative (Agapito et al., 2013). Later on, the destination image comprised the organic, induced, and complex images (Chiu et al., 2016). Destination image is different and changes pre-visit, post-visit, and travel phases (Martin-Santana et al., 2017). International and national tourists and residents perceive destination image differently (Abodeeb et al., 2015). Furthermore, leisure attractions, history, and accommodations are the key attractions for competitiveness and unique destination images (Vinyals-Mirabent, 2019).

Length of stay, experience effects, and time passage might cause changes in the destination image (Pike et al., 2019). Similarly, couch surfing involvement also improves the destination image (Kuhzady et al., 2020). In line with previous studies, Pike et al. (2018) revealed that destination image attributes might change accordingly in the short nature of stopover. Warmth and competence dimensions of stereotype content model can indicate destination image's content with a significant relationship with visit intention (Shen et al., 2019). Marketing communication and cognitive image have a substantial impact on overall destination image; besides direct effect, the visitation mediates the relationships (Albert da Silva et al., 2018).

Slak Valek and Williams (2018) elaborated on Abu Dhabi’s perception by residents and tourists to extend knowledge on destination image. Country and destination images are different for international tourists (Zhang et al., 2018b). Visitors, non-visitors, experiencers, and authors perceive destination images differently (Stylidis and Cherifi, 2018). Destination image significantly impacts perceived values and perceived quality (Dmitrovic et al., 2009). The loyalty of tourists towards the destination and satisfaction are affected by destination image attributes (Mioz, 2014). Cognitive and affective destination images significantly affect the overall image (Chiu et al., 2016). Beerli-Palacio and Martin-Santana (2017) revealed a significant impact of cognitive image on affective and global images. Lindblom et al. (2018) stated that cognitive destination image is the predecessor of the affective destination image.

Intention to travel is significantly affected by cognitive and functional images (Huang and Petrick, 2009). Intent to visit Taiwan is affected substantially by destination uniqueness and image, whereas negative image and intention to visit were insignificant (Huang et al., 2013). Positive destination image through visual media significantly impacts attitude (Quintal and Phau, 2015). Intention to visit is affected considerably by destination image (Terzidou et al., 2018). A cognitive and affective image has a significant positive impact on visiting the reality TV show destination (Fu et al., 2016). Cognitive, affective, and unique destination image has a substantial effect on the overall destination image. Moreover, overall destination image has a significant effect on attitude and behavioral intention (Jaliyvand and Heidari, 2017).

City image significantly affects revisit intention, whereas event image does not substantially affect the revisit intention (Li et al., 2020). Country image influences destination image positively, and both destination image and country image significantly impact intention to visit (Chau lagain et al., 2019). It is necessary for destination management organizations to use Twitter for communication and overcome post-terror crises (Oliveira and Huertas-Roig, 2019). Photos create the destination image and echo with text to contribute to interactive interpretation (Zhao et al., 2018).

Destination image attributes covariates with place identity and place attachment; it also influences intention to revisit a sports event significantly (Ninomiya et al., 2019). Iceland’s cognitive, affective, and conative images are consistent with tourism characteristics and young viewer’s travel intention (Hao et al., 2019). In contrast with environmental image, ecological image significantly affects preservative and intrinsic behavior (Lee and Jeong, 2018). Political factors, nuclear radiation, personal safety issues, and perceived risk negatively affects the destination image of North Korea, which in return reduced revisit intention (F. Li et al., 2018).

The impact of a cognitive image on the behavioral intention for visitors who have experience is significant, whereas, for non-visitors, it is insignificant (Tan and Wu, 2016). The country’s image has a significant impact on intention (Alvarez and Campo, 2014). Cognitive and affective destination images significantly impact behavioral intention (Soudien et al., 2017). Destination image significantly affects the intention and attitude of tourists (Kaur et al., 2016). Destination image significantly impacts revisiting or recommending travel experience involvement (Hahm and Severt, 2018). Positive or negative destination image results in positive or negative behavioral intention, respectively.

Hypothesis 1. Destination image is positively related to behavioral intention.

2.2. Perceived constraints

Constraints are barriers or blockages (Crawford et al., 1991). Constraints are the hurdles and hinder to perform a particular activity (Jackson et al., 1993). Constraints do not always work negatively, but they also help improve the quality and destination attributes (Carroll and Alexandris, 1997). Constraints affect types of tourism activities, destination choices, and frequencies. Moreover, the tourism industry can
overcome some constraints, but some constraints are more challenging due to their dependence on constraints negotiation (Mei and Lantai, 2018). Travel constraints also vary from tourist to tourist; others’ constraints could be an opportunity for others (Barreira and Cesário, 2018). Disinterest, personal safety, and institutional barriers are the constraints for students to visit the US-Mexico border (Canally and Timothy, 2007). At the attraction stage, skiers are more vulnerable to constraints (Alexandris et al., 2017). Spending on consumer products is affected by leisure constraints (Chen, 2018).

There are four types of constraints for senior citizens: intrapersonal, interpersonal, microstructural, and macrostructural (Huber et al., 2018). Bozic et al. (2017) identified a lack of recommendation, structural, lack of time, inter/intrapersonal constraints a tourist must face while traveling. There is a significant negative relation between preference level and intrapersonal constraints. However, structural constraints, participation, and interpersonal constraints have insignificant relation with calligraphic landscape (Zhang et al., 2012). Chinese female travelers perceive eight types of travel constraints, and they negotiate these constraints using advertising, group travel, donkey travel, children’s support, and being motivated (Gao and Kerstetter, 2016). Lack of interest, safety issues, money, and time constraints are more effective for high temporal distance than low distance; similarly, personality influences constraints more for high temporal distance (Tan, 2020).

Interest constraints are the greatest barrier for both males and females to visit museums; comparatively, women report more structural and interpersonal constraints (Mullens and Glorieux, 2019). Intrapersonal constraints are more effective in precontemplation stage than interpersonal, and structural constraints are more effective in preparation, action, and maintenance (Qiu et al., 2018). The dimensions of interpersonal constraints such as escape, inquisitiveness, emotion, and culture partially affect the revisit intention. Intrapersonal constraints also mediate the relationship between travel experiences and revisit intention (Zhang et al., 2016).

Intrapersonal constraints and school constraints are important for travelers at planning and actual excursion behavior stages; however, constraints do not influence the number of trips and length of stay ( Dale and Ritchie, 2020). Leisure constraints do not influence intention to visit theme parks in the future, whereas leisure constraints partially influence existential authenticity and motivation to a theme park (Tan and Huang, 2020). In line with literature revealed that just perceived incapability dimension of constraints significantly impacts learned helplessness, whereas other dimensions of constraints have no impact on helplessness. Moreover, negotiation does not moderate the relationship between constraint dimensions and helplessness (Wen et al., 2020).

Health constraints significantly affect travel intention, following a larger influence of financial and family constraints, slight effect of time, travel stress, travel companion, and pet constraints. In contrast, no work constraints affect travel intention (Karl et al., 2020). Intrinsic, environmental, and interactional constraints do not affect the travel intention of disabled persons (Zee et al., 2012). In line with previous studies, Uatay et al. (2019) identified interpersonal constraints affect both attitude and travel intention towards solo travel. In contrast, structural constraints do not affect attitude and travel intention. Intention to travel is significantly affected by travel constraints, whereas travel intention is positively influenced by negotiating constraints (Huang and Petrick, 2012). Mainland Chinese tourists’ revisit intention to Hong Kong is not influenced by structural and interpersonal constraints (Huang and Hsu, 2009).

Hypothesis 2. Perceived constraints are negatively related to behavioral intention.

2.3. Perceived risks

Cheron and Ritchie (1982) added satisfaction risk and five dimensions of perceived risks: psychological, financial, performance, social and physical risks. Later, political instability, health risks, and terrorism risks were added as perceived risk dimensions (Sonmez and Graefe, 1998). Rush, instead of risk, motivates tourists for adventurous activities (Buckley, 2012). Equipment failure, health, physical, crime, weather, political issues, and cultural risks are the seven risks identified by (Schoeder et al., 2017). Tourists are categorized based on risk perceptions such as risk-averse, risk avoider, safe novelty seeker, adventurous novelty seeker, and risk-takers (Karl, 2016).

First-time visitors and repeaters both perceive travel and terrorism risk (Rittichainuwat and Chakraborty, 2009). Social risk, language barrier, support of local, evacuation, and treatment in case of terrorism are the risks tourists from Israel face while crossing the Egyptian border (Fuchs et al., 2013). Similarly, terrorism also affected tourist arrivals in Greece (Samitas et al., 2018). Perceived travel risks for first-timers are different as compared to repeaters (Fuchs and Reichel, 2011). Tourists set a benchmark for traveling and destinations above that benchmark compared to safety and security (Koo et al., 2018). Sexual harassment, getting lost, theft, discrimination, social disapproval, and physical abuse are the risks perceived by solo female travelers (Yang et al., 2017).

Individual drifters prefer places with higher risks, whereas tourists in groups are not risk-takers (Williams and Balaz, 2013). Tourists perceive more risks from places with more incidents of terror (Desivilya et al., 2015). Offensive and aggressive street behavior is the predictor of safety and security concern, whereas non-offensive and distracting street behavior do not affect safety and security concern (Millar et al., 2017). Attachment with the homeland, gender, and age make international travel riskier and receptive to threats which result in Russians turning to domestic tourism. In contrast, higher income makes Russians less susceptible to threats (Stephenkova et al., 2018). In comparison, Promsivapallop and Kannaovakun (2018) did not support the argument that young female adults perceive more risk than young males.

Experience of riskier activities results in riskier behavior (Pröbstl-Haider et al., 2016). Tourist demographics, such as age and gender, substantially impact risk perception (Schroeder and Pennington-Gray, 2014). Experiencers perceive fewer risks as compared to first-timers (Russel and Prideaux, 2014). Tourist with victimization experience perceives more risk (Sharifi-Tehrani and Esfandiar, 2018). Environmental health and psychological risks significantly impact satisfaction with destination attributes (Olya & Al-ansi, 2018).

Violent crime is the major security concern for tourists; for some tourists, violent crime might not affect the travel intention, but it can cause (re)visit intention (Hua et al., 2020). Terrorism has a long-term impact on tourists’ minds compared to social and political incidents (Lanour and Gaoied, 2019). Tourists tend to change their tour plans due to terrorism (Walters et al., 2018). Political turmoil also affects the length of stay negatively (Hatefzabar and Chapuis, 2020). Nuclear testing has damaged the destination image of North Korea for Chinese tourists, so the perceived risk, along with the tense regional situation, affected the destination image negatively (F. Li et al., 2018).

Familiarity seekers perceive health and communication risks higher than novelty seekers; young adults with experience have lower risk perception. In comparison, risk dimensions such as crime and false practice risk, health, communication, and over-commercialization risks do not influence travel intention except political risk (Promsivapallop and Kannaovakun, 2018). Perceived risk negatively affects attitude, but the perceived risk does not affect behavioral intention (Hsieh et al., 2016).

Perceived risks, particularly terrorism, negatively impact visiting internationally (Sonmez and Graefe, 1998). Perceived risks have a significant adverse effect on behavioral intention (Floyd et al., 2004). Perceived risk has a significant impact on local food consumption intention (Zhang et al., 2018a, 2018b). Perceived risks are different for tourists from peaceful places; they perceive less risk and usually are risk-takers (Desivilya et al., 2015). Financial risk, environmental risk, social risk, health, and psychological risks have a significant negative impact on using a product and the intention to recommend (Olya &
Alansi, 2018). Besides the perception of risk, risk knowledge also affects risk aversion attitude and travel intention (Zhu and Deng, 2020).

**Hypothesis 3.** Perceived risks are negatively related to behavioral intention.

### 2.4. The mediating role of destination image

Cognitive and affective destination images have a significant impact on the overall image and intention to recommend. Moreover, the overall destination image also mediates the relation between affective and cognitive destination images and overall destination image (Stylidis et al., 2017). Destination image mediates the relationship between intention to visit and consumption value (Gómez et al., 2018). Holistic destination image mediates the relationship between revisit intention and affective and conative image not insignificant between cognitive image and revisits intention (Stylos et al., 2016). City image mediates the relationship between event image, satisfaction, and revisits intention (Li et al., 2020). Destination image partially mediates the relationship between travel motivation and destination travel intention (Caber et al., 2020).

Perceived risks such as cultural, health, psychological, financial, and political risks negatively affect destination image (Parrey et al., 2018). Perceived risks have a significant negative impact on destination image (Kani et al., 2017). Tourists perceive more risk from the destinations with negative destination image (Carballo et al., 2017). Cognitive and affective destination images are affected by financial and socio-psychological risks. In contrast, physical risk has no significant impact on cognitive and affective destination images; moreover, the relationship between perceived risks and behavioral intention is significantly mediated by destination image (Chew and Jahari, 2014). Perpiña et al. (2021) integrated the behavior model by merging affective and cognitive components of destination image and perceived risk in a single construct and identified that both cognitive and affective components influence overall evaluations.

The consumption value and intention to visit are significantly mediated by destination image (Gómez et al., 2018). For a riskier continent, regardless of national or regional variability, regardless of knowledge about a place, people apply sweeping generalization over the entire continent, especially in Uganda (Lepp et al., 2011). Perceived risk pre-travel and post-travel significantly affect destination image perception (Xie et al., 2020). Perceived risks moderate the relationship between destination image and overall satisfaction. Moreover, risks also moderate the link between satisfaction and behavioral intention (Tavitiyaman and Qu, 2013). Crime-related safety & security concerns are the predictors of destination image, whereas panhandling-related concerns do not predict destination image (Millar et al., 2017). Overall, risk perception moderates the relationship between destination image and travel intention (Caber et al., 2020).

Social quality risk and travel constraints significantly negatively affect both destination image medical and non-medical attributes. In contrast, physical health and destination risks influence just destination image medical attributes (Khan et al., 2020). Security gaps also affect the perceptions of destination image, as Terrah et al. (2020) identified a significant difference between expectations and perceptions of the airport and hotel security. Online identity and sense of community constraints have no impact on affective image and emotion, and they do not moderate the relationship between emotion and affective image. In contrast, information search constraint has a significant negative impact on emotion (Fu and Timothy, 2021).

Structural and intrapersonal constraints have a significant impact on the destination image. A strong destination image could dominate cultural constraints. Destination image also mediates the relation between perceived constraints and behavioral intention (Chen et al., 2013). Travel constraints and destination image have negative relation for repeaters, whereas a positive relation for first-timers (Tan, 2017). There is also a significant relationship between destination image and perceived constraints (Chen et al., 2013). Gender affects enemy image with a significant impact of gender and generation on barbarian and ally images (Chung and Chen, 2019).

Figure 1 shows the study’s conceptual framework; the study adapted the reflective model because, first, results are more powerful and less biased in reflective specifications (Chang et al., 2016). The causality direction is from construct to items. Change in indicator did not cause a change in the construct. All the indicators shared a common theme; the constructed concept did not change with dropping an indicator (Jarvis et al., 2003). Second, past studies (Khan et al., 2017, 2019; Parrey et al., 2018; Park et al., 2017) used reflective models for their studies.

**Hypothesis 4.** Perceived constraints are negatively related to the destination image.

**Hypothesis 5.** Perceived risks are negatively related to the destination image.

**Hypothesis 6a.** Destination image mediates the relation between perceived constraints and behavioral intention.

**Hypothesis 6b.** Destination image mediates the relation between perceived risks and behavioral intention.

### 2.5. Research method

This study used a positivist, deductive approach, in which the Hypothesis is deduced based on general theory (Sekaran and Bougie, 2016), and a quantitative technique with questionnaire survey method to collect...
data that is easy to explain, efficient in time, and low in money consumption (Saunders et al., 2009). A cross-sectional data collection method was used, as it is easier to approach research targets, personal identities are not required, and respondents feel free to respond in less time (Spector, 2006). The questionnaire was distributed with cover letter elaborating the purpose of the survey assuring the confidentiality to the respondents. In addition, researchers conducted the study involving human participants with institutional committee's ethical standards (Putra Business School Research Ethical Committee headed by Prof. Dr. Zulkornain Yusop, Reference Number: PBS/PhD/PBS18122250 dated June 29, 2020).

2.6. Research instrument

The study used well-established survey scales developed by previous studies. All the items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) because fully labeled provides benefits to the researchers (Eutsler and Lang, 2015). Moreover, five and seven-point Likert scales produce the same mean scores on rescaling (Dawes, 2008). The other reason for using the Five-point scale was the past researchers, i.e., (Khan et al., 2017, 2019; Park et al., 2017; Parrey et al., 2018) who used five-point Likert scale. The destination image was measured on eleven items scale developed by (Khan et al., 2017; Park et al., 2017). Three items scale of behavioral intention was adapted from (Lam and Hsu, 2004). Perceived risks were measured on eight items scale developed by (Parrey et al., 2018). Ten items scale of perceived constraints was adapted from (Huang and Hsu, 2009; Khan et al., 2019). Tourists’ demographics such as age, gender, marital status, region, occupation, and income were also measured.

Table 1. Respondent’s profile.

| Demographic characteristics | % |
|-----------------------------|---|
| Gender                      |   |
| Male                        | 53 |
| Single                      | 50 |
| Marital Status              |   |
| Married                     | 47 |
| Separated                   | 3  |
| 18–24                       | 14 |
| 25–34                       | 34 |
| Age                         |   |
| 35–44                       | 25 |
| 45–54                       | 14 |
| 55–64                       |  8 |
| Employed full time          | 64 |
| Employed part-time          | 12 |
| Employment Status           |   |
| Housewife/House worker      | 10 |
| Temporarily unemployed/Looking forward Retired | 3 |
| Student                     | 11 |
| Less than 2000              | 27 |
| 2000–3999                   | 24 |
| Monthly Income              |   |
| 4000–6999                   | 16 |
| 7000–9999                   | 12 |
| more than 9999              |  1 |
| Ethnicity                   |   |
| Asian                       | 44 |
| European                    | 38 |
| Australian                  |  3 |
| North American              | 10 |
| South American              |  5 |

Table 2. Validity and reliability for constructs.

| Constructs                  | Items                                                                 | Alpha | Loading | AVE  | CR   |
|-----------------------------|-----------------------------------------------------------------------|-------|---------|------|------|
| Destination Image (DI)      | Pakistan has a quality tourism infrastructure                         | 0.919 | 0.621   | 0.556| 0.932|
|                             | Pakistan has a good climate                                          |       | 0.819   |      |      |
|                             | Pakistan is safe and stable                                          |       | 0.776   |      |      |
|                             | Pakistan has a good quality of life                                  |       | 0.643   |      |      |
|                             | Pakistan has appealing local cuisine                                 |       | 0.689   |      |      |
|                             | Pakistan has a variety of unique attractions                          |       | 0.768   |      |      |
|                             | Pakistan is rich in cultural heritage                                |       | 0.810   |      |      |
|                             | Pakistan is a good place for shopping                                |       | 0.728   |      |      |
|                             | Pakistani people are interesting and friendly                         |       | 0.803   |      |      |
|                             | Pakistan is a pleasant place to visit                                 |       | 0.825   |      |      |
|                             | Pakistan has several springs                                         |       | 0.685   |      |      |
| Perceived Constraints (PC)  | You do not have enough money to revisit Pakistan                      | 0.870 | 0.647   | 0.505| 0.889|
|                             | You do not have enough holidays to revisit Pakistan                   |       | 0.572   |      |      |
|                             | No information about places to visit in Pakistan                      |       | 0.758   |      |      |
|                             | The weather is not favorable in Pakistan                              |       | 0.810   |      |      |
|                             | Areas you want to visit are too far away in Pakistan                  |       | 0.619   |      |      |
|                             | No one to travel with you                                            |       | 0.743   |      |      |
|                             | Family and friends are not interested in traveling to Pakistan       |       | 0.689   |      |      |
|                             | Pakistan is not novel to you anymore                                  |       | 0.806   |      |      |
| Perceived Risk (PR)         | You feel overall the experience of vacation will not be a good value of money | 0.907 | 0.698   | 0.606| 0.924|
|                             | You feel the threat of becoming sick while traveling or at the destination |       | 0.847   |      |      |
|                             | You feel psychological trauma because of others' negative comments about the destination |       | 0.827   |      |      |
|                             | You feel there is a chance of physical danger to my health while on vacation |       | 0.852   |      |      |
|                             | You feel that you might get caught up in political turmoil while vacationing |       | 0.811   |      |      |
|                             | You perceive language barriers while vacationing                      |       | 0.530   |      |      |
|                             | You perceive the risk of a terrorist attack while vacationing         |       | 0.806   |      |      |
|                             | You feel that you will not receive enough personal satisfaction from this vacation |       | 0.804   |      |      |
| Behavioral Intention (BI)   | You intend to revisit Pakistan                                       | 0.950 | 0.958   | 0.909| 0.968|
|                             | You intend to recommend Pakistan to others                            |       | 0.957   |      |      |
|                             | You plan to revisit Pakistan                                         |       | 0.946   |      |      |
Wilson (2019) ranked at 3rd potential adventurous destination by British for a country with the potential to be the number one tourist destination. The contribution to Pakistan’s GDP is just 8.83 billion US dollars, which is far less than other countries (Calderwood and Soshkin, 2019). The tourism sector’s contribution has an equal chance of selection, and it is used when the sampling frame is available (Veal, 2006). There was no sampling frame available, so the study used a non-probability purposive sampling technique (Chen and Tsai, 2007). The data was collected through online sources (Facebook messenger, YouTube, and Email) and face-to-face. First, the targeted responses were identified through Facebook pages and YouTube blogs; then, the google form link was sent through Facebook messenger, YouTube video comments, and emails. Face to Face responses was collected from tourists at the tourist places. The data was collected from June to September, as it is the peak time of tourism in Pakistan.

Two hundred forty-three respondents (224 online, 19 face to face) sent the questionnaire back. Responses with missing values higher than 5% should be excluded (Hair et al., 2017). Forty-two responses with higher missing values were excluded. Two hundred-one respondents were used for further analysis, which meets the required sample size criteria, i.e., 119 by G*Power.

The sample size was determined on the following basis:
There should not be too small or too large a sample size, but it should be moderate (Kothari, 2016). The sample size should be enough to identify the relationship effects (Fink et al., 2010). A sample size between 200 to 400 is critical (Hair et al., 2014). Sample-to-variable ratio preferred 15:1 or 20:1 are appropriate to determine sample size (Hair et al., 2018; Memon et al., 2020). There are three independent variables; according to the 20:1 ratio, the sample size for this study is 60. A power analysis was conducted to obtain an appropriate sample size using G*Power software (Memon et al., 2020). The research identified a sample size of 119 respondents obtained by three predictors, the probability of null Hypothesis rejection 0.05, the medium effect size and the Value of power 0.15, and the power value (1 - error probability) 0.95. Out of 201 respondents, 53% were male, and the remaining were female. Most of the respondent’s 44%, were Asian, backed by 38% European. Most of the respondents, 64%, were full-time employed, and 50% were single. Table 1 provides the demographics of respondents.

### 2.7. Data collection procedure and sampling

This study aimed to know to revisit international tourists’ intentions based on destination image, perceived risks, and perceived constraints. So, the international tourists in Pakistan were the target population. Pakistan was chosen as Pakistan stands at 121st number out of 140 countries (Calderwood and Soshkin, 2019). The tourism sector’s contribution to Pakistan’s GDP is just 8.83 billion US dollars, which is far less for a country with the potential to be the number one tourist destination. Wilson (2019) ranked at 3rd potential adventurous destination by British Backpackers (Ahmed, 2019). This lacks infrastructure, less coordination within departments, and safety and security issues (Arshad et al., 2018).

In the probability sampling technique, every element of the population has an equal chance of selection, and it is used when the sampling frame is available (Veal, 2006). There was no sampling frame available, so the study used a non-probability purposive sampling technique (Chen and Tsai, 2007). The data was collected through online sources.

### 3. Data analysis & results

#### 3.1. Measurement model

A measurement model and structural model were measured using Partial Least Square (PLS) – Structural Equation Modeling (SEM) and the software used in SmartPLS 3.3.2 (Hair et al., 2012). PLS-SEM is useful for theory development (Hair et al., 2017). PLS-SEM can handle a small sample size. The 201 sample size used in this study can be considered small; moreover, it is unnecessary to report each indicators’ standard deviation and mean values (Hair et al., 2014).

This study used internal consistency reliability, indicator reliability (outer loadings), convergent and discriminant validity to analyze the measurement model. For internal consistency reliability, Cronbach’s alpha and composite reliability (CR) were used. Cronbach’s Alpha value ≥0.7 and composite reliability (CR) ≥ 0.8 are considered satisfactory (Hair et al., 2018). Table 2 shows that Cronbach’s Alpha and CR values are satisfactory, so the study constructs have internal consistency.

### Table 3. Cross-loading.

| Constructs       | Destination Image | Perceived Constraints | Perceived Risks | Behavioral Intention |
|------------------|-------------------|-----------------------|----------------|---------------------|
| Di1              | 0.621             | -0.248                | -0.061         | 0.328               |
| Di2              | 0.819             | -0.332                | -0.216         | 0.483               |
| Di3              | 0.776             | -0.347                | 0.047          | 0.343               |
| Di4              | 0.643             | -0.303                | -0.06          | 0.337               |
| Di5              | 0.689             | -0.238                | -0.062         | 0.31                |
| Di6              | 0.768             | -0.333                | -0.036         | 0.354               |
| Di7              | 0.81              | -0.32                 | 0.001          | 0.328               |
| Di8              | 0.728             | -0.268                | -0.032         | 0.325               |
| Di9              | 0.803             | -0.378                | -0.018         | 0.307               |
| Di10             | 0.825             | -0.308                | -0.082         | 0.363               |
| Di11             | 0.685             | -0.31                 | -0.173         | 0.387               |
| Pc1              | -0.229            | 0.647                 | -0.261         | -0.248              |
| Pc2              | -0.171            | 0.572                 | -0.189         | -0.091              |
| Pc3              | -0.231            | 0.758                 | -0.305         | -0.272              |
| Pc4              | -0.425            | 0.81                  | -0.232         | -0.395              |
| Pc6              | -0.239            | 0.619                 | -0.271         | -0.166              |
| Pc7              | -0.357            | 0.743                 | -0.237         | -0.213              |
| Pc8              | -0.28             | 0.689                 | -0.117         | -0.37               |
| Pc9              | -0.323            | 0.806                 | -0.251         | -0.378              |
| Pr1              | -0.141            | -0.251                | 0.698          | -0.156              |
| Pr2              | -0.099            | -0.265                | 0.847          | -0.214              |
| Pr3              | -0.098            | -0.228                | 0.827          | -0.191              |
| Pr4              | -0.017            | -0.247                | 0.852          | -0.114              |
| Pr5              | -0.035            | -0.247                | 0.811          | -0.079              |
| Pr6              | 0.087             | -0.28                 | 0.53           | -0.099              |
| Pr7              | -0.057            | -0.232                | 0.806          | -0.171              |
| Pr8              | -0.052            | -0.282                | 0.804          | -0.122              |
| B1               | 0.427             | -0.346                | -0.194         | 0.958               |
| B2               | 0.454             | -0.379                | -0.17          | 0.957               |
| B3               | 0.483             | -0.43                 | -0.213         | 0.946               |

Bold values are representing the values of representing variable.

### Table 4. Fornell-larker criterion.

| Constructs       | 1       | 2       | 3       | 4       |
|------------------|---------|---------|---------|---------|
| Behavioral Intention | 0.954   |         |         |         |
| Destination Image   | 0.479   | 0.746   |         |         |
| Perceived Constraints| -0.406  | -0.416  | 0.710   |         |
| Perceived Risks     | -0.203  | -0.094  | -0.318  | 0.778   |

Bold values are representing the values of representing variable.

### Table 5. Heterotrait-monotrait (HTMT).

| Constructs       | 1       | 2       | 3       | 4       |
|------------------|---------|---------|---------|---------|
| Behavioral Intention | 0.504   |         |         |         |
| Destination Image   |         |         |         | 0.443   |
| Perceived Constraints|         |         | 0.198   | 0.379   |
| Perceived Risks     |         |         |         |         |

### Table 6. Collinearity statistics VIF.

| Constructs       | 1       | 2       | 3       | 4       |
|------------------|---------|---------|---------|---------|
| Behavioral Intention |        |         |         | 1.298   |
| Destination Image   |         |         |         | 1.431   |
| Perceived Constraints|         |         | 1.194   | 1.112   |
| Perceived Risk      |         |         |         |         |
reliability. For indicator reliability and convergent validity factor loadings, average variance extracted (AVE) and composite reliability (CR) were analyzed. 0.708 is the recommended Value of factor loading, with 0.505 to 0.909 and composite reliability ranged from 0.889 to 0.968. Table 3 shows that indicator's loadings ranging from 0.530 to 0.958. AVE value of variables ranging from 0.505 to 0.909 and composite reliability ranged from 0.889 to 0.968.

Discriminant validity ensures that the constructs are not reflected and unrelated to each other. There are three ways to measure discriminant validity; Cross-loadings, Fornell-Larker Criterion, and Heterotrait-Monotrait (HTMT) ratio. For cross-loading, indicators on the designated latent variable should be higher than the loadings of other variables. If the indicators are higher than the loadings of other constructs, constructs are not interchangeable. Table 3 shows that indicator's loadings on assigned variables are higher than the loadings on all other constructs, establishing discriminant validity. It indicates that there is no cross-multiplication between the constructs. And there is no cross-influence between perceived risk and perceived constraints.

For Fornell-Larker Criterion, AVE's square root on diagonal values should be greater than the corresponding correlations' values. The study meets the criteria, as shown in Table 4. Henseler et al. (2016) recommended HTMT as the alternative approach to measure discriminant validity. HTMT should be less than 0.85 Ringle et al. (2018). Table 5 shows that the value of HTMT is less than 0.85, which meets the required value of discriminant validity.

### 3.2. Structural model

On the validation of the measurement model, at the second step structural model was tested. Normal distribution of data is not required for PLS-SEM, as it uses nonparametric statistical techniques (Hair et al., 2017). VIF value should be less than 5, and in some cases, it should be less than 3.3 to avoid multicollinearity (Hair et al., 2018). There is no multicollinearity between independent constructs (destination image, perceived constraints, and perceived risks) and in mediation cases (perceived risks and perceived constraints) constructs. Table 6 shows that all the VIF values are less than 5 or 3.3. Therefore, there is no relationship or cross multiplication between perceived constraints and perceived risks.

For structural model bootstrapping with 5000, resample was used to assess beta value, std. error, t-value, effect size, $R^2$, and $Q^2$ values. First direct relations between variables were evaluated. Based on the calculation of path coefficients as displayed in Table 7, all the relations have $t$-values larger than 1.645, thus significant at the 0.05 significance level. Destination image has significant positive effect on behavioral intention ($\beta = 0.294; p < 0.05$), perceived constraints have significant negative impact on behavioral intention ($\beta = -0.378; p < 0.05$), similarly perceived risks has also significant negative impact on behavioral intention ($\beta = -0.295; p < 0.05$). Explaining 35% variation in behavioral intention. Moreover, perceived risks ($\beta = -0.251; p < 0.05$), and perceived constraints ($\beta = -0.496; p < 0.05$), have significant negative impact on destination image, which explains 23% percent variation in destination image. Thus, all the direct relation hypotheses H1, H2, H3, H4, H5 were supported. P-value guides the audience either the relationship exists or not. It does not guide with the effect size. $f^2$ value indicates the effect size, a value larger than 0.2 indicates a small effect, a value greater than 0.15 shows medium, and higher than 0.35 shows the substantial effect (Cohen, 1992). As the values of $f^2$ in Table 7 show that perceived constraints have a medium effect on behavioral intention, perceived risk, and destination image have small effects on behavioral intention, perceived risk is small. In contrast, perceived constraints have a medium effect on destination image.

Besides, through the blindfolding procedure, the predictive relevance of the model was examined. Value of $Q^2$ larger than 0 indicates predictive relevance of model (Hair et al., 2017). All two $Q^2$ values for behavioral intention, perceived risk is small. In contrast, perceived constraints have a medium effect on destination image. Besides, the mediation effect was investigated. Based on the calculation of path coefficients through bootstrapping as displayed in Table 8, all the two indirect effects, $\beta = -0.146, \beta = -0.074$, are significant with $t$ values 2.954 and 1.989, there is mediation, and the relations are statistically significant if 0 is not straddled in between the limits of confidence interval (Preacher & Hayes, 2004, 2008). Confidence interval values in Table 8 (LL = -0.259, UL = -0.067), (LL = -0.153, UL = -0.012) do not straddle 0 in between, so the mediation effects are statistically significant. So, the mediation Hypothesis H6a and H6b are significant.

### 4. Discussion and conclusion

This study contributes to the existing knowledge of tourism literature in two ways. First, this study verified the relation between perceived constraints, perceived risks, and destination image. Few studies address
destination image formation through perceived risks and perceived constraints (Chew and Jahari, 2014; Khan et al., 2017; Lepp et al., 2011). To confirm relationships among these constructs, authors call for further investigation (Chen et al., 2013; Chew and Jahari, 2014; Khan et al., 2017). When risks and constraints are examined in this study, the relations are relevant to international tourists to Pakistan in re-forming their destination image. Second, this study contributes to the literature by integrating risks, constraints, and destination image. Investigating the mediating role of destination image between the constructs as well. Our findings support the argument that destination image mediates the relation among constructs significantly. The perception of risks, destination image, and constraints by international tourists for the riskier destination were understood.

This study identifies the relationship between perceived risks, perceived constraints, and destination image. This study investigates constraints, risks, and destination image as an individual construct to understand international tourists’ behavior. This study found a significant relationship between perceived risks, perceived constraints, and destination image. Moreover, this study also found a significant impact of perceived constraints, perceived risks, and destination image on behavioral intention. The results constraints to intention (β = 0.294; p < 0.05), risk to intention (β = 0.378; p < 0.05) indicates that international tourists may not intend to revisit the riskier destination if they perceive constraints and risks. Results also indicate that tourists intend to revisit the destination if they perceive a positive destination image. The results align with previous research (Huber et al., 2018; Kani et al., 2017; Khan et al., 2019; Lepp et al., 2011; Olya & Al-ansi, 2018; Parrey et al., 2018).

As the perceived risk and perceived constraints have a significant negative impact on behavioral intention and destination image, this might be good for repeat visitors as the travel costs are lower in such a situation. In such a situation, there should be promotions by destination management organizations to reduce negative perceptions. Destination managers should provide quality infrastructure, safety and security, quality food, and a better environment. Value for money services such as airfare, family tours, and accommodation should be provided to tourists for risk substitutes.

This study’s second finding is the mediating role of destination image between perceived risk, perceived constraints, and behavioral intention. Past researchers revealed that destination image, if properly managed has a significant influence on behaviors. Existing findings illustrate that managers should mitigate risks and alleviate constraints to improve destination image and behavioral intention.

4.1 Limitation and future research

The research investigated destination image, perceived constraints, and perceived risks with international tourist’s revisit intention. The study also analyzed the mediating role of destination image between perceived constraints, perceived risks, and behavioral intention. All the relations were significantly supported. Our research also elaborates the importance of constraints and risks in developing destination image. Although this study contributed to tourism literature by understanding destination image, perceived constraints, and perceived risks, it also has some limitations. The current study was limited to investigate the behavioral intention of international tourists to Pakistan. The sample size of 201 international tourists may also not represent the total number of tourists to Pakistan. Still, our sample is adequate as G*Power (Memon et al., 2020).

Furthermore, the study took uni-dimension of destination image, constraints, and risks to understand international tourists’ travel behavior. Future research should consider cognitive, affective, overall, and conative destination images, structural, intrapersonal, and interpersonal constraints. Getting data through online sources also has its limitations. Although this way of data collection is feasible and convenient, still, it lacks generalizability. However, data collection through online sources was due to the unavailability of the sampling frame. The other reason to collect data through online resources was due to epidemic COVID 19. There are fewer issues with method biases in data collection through online resources (Chew and Jahari, 2014; De Beuckelaer and Lienvens, 2009).

Declarations

Author contribution statement

Muhammad Umair Nazir: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. Ida Yasin, Huan Hon Tat: Analyzed and interpreted the data.

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Data will be made available on request.

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The authors declare no conflict of interest.

Additional information

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