

Do tourists perceive the same risks in border tourism? The case of destinations along the U.S.-Mexico border

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Abstract: To gain a deeper insight into tourism within border regions, research is needed to examine the way tourists perceive international borders. It is essential to investigate if tourists perceive the same risks in border areas compared with other tourism destinations. The purpose of this study was to identify salient dimensions of perceived risk in border tourism. Moreover, the relationships among destination familiarity, media exposure, perceived risk, attitude, and intentions to visit destinations along the U.S. – Mexico border have been examined. The findings revealed different types of risks when considering travel to the U.S. – Mexico border region; familiarity and media exposure significantly influenced tourists' perceived risk. In addition, dimensions of perceived risk including personal safety and Border Patrol concern showed a significant relationship with attitudes. This study further identified strong positive relationships between attitude and behavioral intention. Based on the results, several managerial implications have been proposed to reduce the perceived risk of tourists in order to promote border tourism.

Keywords: perceived risk, familiarity, media exposure, attitude, behavioral intentions, border tourism

1. Introduction

Tourism is a sector of the service industry that is distinguished by having a unique experience-oriented and intangible nature (Lovelock & Wirtz, 2007), which makes tourists vulnerable to risks and threats. People still recall catastrophic events that occurred in recent world history such the terrorist attacks in the U.S on September 11, 2001, the 2010 earthquake in Haiti, and more recently, the global spread of the coronavirus disease (COVID-19). Such events could influence people to perceive some level of risk when considering travel, which could influence the decision-making behavior of tourists. In fact, the weakened economy and tourism industry did not immediately recuperate after the Middle East Respiratory Syndrome (MERS) outbreak in 2015 (Choe et al., 2021). Tourists who perceive a higher level of risk tend to have lower intentions to visit a destination (Sönmez & Graefe, 1998b). The studies of perceived risk among tourists have become more prominent in recent years in the context of tourism and various types of travel risk have been identified including health, physical, satisfaction, equipment, time, monetary/financial, cultural, psychological, political instability, terrorism, and crime risks (Matiza & Slabbert, 2021; Reisinger & Mavondo, 2006). The focus on tourists' risk perceptions is often associated with general international travel. However, whether various types of risks identified in the literature could be applied to other tourism destinations, or whether tourists who consider traveling to a specific destination could perceive different types of risk needs further exploration. Prior researchers also support this viewpoint by suggesting that destination-specific risk perceptions should be studied because tourists perceive risks differently based on the destinations (An, 2016; Roehl & Fesenmaier, 1992).

To compound the issue, very little empirical research has investigated tourists' risk perception concerning travel to an international border. Traveling to a border region could be different from other tourism destinations. An international border itself can be a barrier for tourists because the presence of geopolitical boundaries in a region leads to distinctive economic, social, and political circumstances (Timothy & Tosun, 2003). Borders not only can be viewed fearfully by tourists due to their characteristics, but also as an attraction which appeals to tourists because they

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offer beautiful natural scenery and can invoke mythological or frontier imagery (Timothy, 2008). Based on the diverse characteristics of borders, tourists could perceive different types of risk compared to general international tourism. In order to understand the role of borders in tourism and boost competitiveness as tourism destinations, there is a need to examine how tourists perceive borders. However, research related to international border tourism remains limited, with a few notable exceptions. For example, Canally (2004) examined college students' constraints when traveling into a Mexican border city. The results indicated that food and water quality, political instability, and stories about crime were found to be obstacles, which could influence attitudes of students and their intention to travel to a border town in Mexico. These findings further explored tourist perceptions toward border tourism by applying the concept of perceived risk.

Prior studies have explored the concept of perceived risk from multiple perspectives including past travel experience (Jun, 2020; Lepp & Gibson, 2008; Sönmez & Graefe, 1998a), nationality/culture (Kovačić et al., 2020; Park & Reisinger, 2010; Reisinger & Mavondo, 2006; Viet et al., 2020), social media (Rather, 2021; Schroeder & Pennington-Gray, 2014), tourists' characteristics (Carr, 2001; Gibson & Yiannakis, 2002; Lepp & Gibson, 2003), and destination image (Caber et al., 2020; Hamouda & Yacoub, 2018; Loureiro & Jesus, 2019). However, considering the importance of examining risk perception within the realm of tourism, there are still some factors which have not been thoroughly addressed such as familiarity with a destination and the effect of media exposure. This paper explores salient dimensions of perceived risk and examines the relationship between types of risk, destination familiarity, and media exposure in the context of U.S.-Mexico border tourism. This study aims to advance knowledge of the characteristics of border tourism and could potentially revitalize areas located in border regions as tourism destinations.

2. Literature Review

2.1 *Perceived risk in tourism*

The concept of perceived risk has been widely used in diverse fields since it was first introduced in the field of economics during the 1920s (Knight, 1948). From the perspective of tourism, perceived risk is characterized as an individual's assessment of the likelihood of encountering potential hazards or safety concerns while traveling (Fischhoff et al., 1984). Perceived risk as a conceptual framework has received considerable attention in the field of tourism in understanding tourists' perception of risks by examining its constructs and types of risk tourists experience when they travel. As pioneering researchers, Roehl and Fesenmaier (1992) established the concept of perceived risk and seven dimensions of perceived risk: equipment, physical, satisfaction, social, time, financial, and psychological were examined from the perspective of risks in leisure. To expand this work, Sönmez and Graefe (1998b) closely examined three additional risks: political instability, health, and terrorism risks. The results of the study indicated that safety issues of a destination are a strong predictor for tourists to avoid traveling to a destination.

As the concept of perceived risk began to draw attention in the academic field, researchers began examining perceived risk from various perspectives. Hunter-Jones et al. (2007) investigated the increasing youth tourism market, focusing on backpackers, and examined the attitudes related to risk and potential reactions to a possible catastrophe. In the context of perceived risk in international travel, Sönmez and Graefe (1998a, 1998b) identified ten types of risks: functional/equipment, social, time, terrorism, health, psychological, physical, political instability, satisfaction, and financial. One of the key findings in this line of research was that levels of risk perception directly affect choices made regarding international vacation destinations (Kozak et al., 2007; Mäser & Weiermair, 1998; Matiza & Slabbert, 2021). In addition to the ten dimensions of perceived risk identified in previous literature, Han (2005) proposed "communication risk" was an additional aspect that tourists perceived as important when vacationing at international destinations such as Australia and Japan. The results revealed that seven distinct dimensions of perceived risk, including value risk, health risk, social risk, communication risk, terrorism risk, psychological risk, and equipment risk, were recognized as significant components of perceived risk associated with

travel to these particular destinations. The results revealed that seven distinct dimensions of perceived risk, including value risk, health risk, social risk, communication risk, terrorism risk, psychological risk, and equipment risk, were recognized as significant components of perceived risk associated with travel to these particular destinations. Moreover, in a recent study, Emami and Ranjbarian (2019) identified eight types of perceived risks including inappropriate dress, human rights violation, inaccessibility to cash, communication, social risk, securing a visa, crime, and satisfaction for tourists considering travel to Iran.

Even though there is sufficient empirical evidence that indicates tourists perceive risk in different ways depending on the destination, the subject of borders and tourism warrants further research. For example, Martinez (2000) used the Expected Value Model to examine U.S. tourists' individual risk perceptions of criminal victimization on the American side of the U.S.-Mexico border. The results revealed that tourists perceived a higher risk of being a victim of a crime than the actual probability of crime victimization. Considering the results of this research, tourists traveling to destinations along the Mexican border area may be concerned about their physical safety in relation to crime. This outcome is somewhat different from previous studies regarding perceived risks. For example, temporal risk and financial risk in air travel (Boksberger et al., 2007), political instability risk for backpackers (Hunter-Jones, et al., 2007), and socio-psychological risk as well as financial risk (Chew & Jahari, 2014) were found to be the most significant risk factors associated with traveling to Japan. This phenomenon could be attributed to the geographic characteristics of the border. Therefore, identifying the types of risks tourists perceive when considering travel to border areas, and whether these risks differ from previous studies, will make a significant contribution to understanding tourism to destinations along the U.S.-Mexico border.

2.2 Familiarity with destinations

Familiarity is a notion that affects tourist perceptions of constraints or risk in relation to traveling to a destination. Various studies have examined how familiarity influences tourist destination choices (Lee et al., 2021; Lepp & Gibson, 2003; Perdue, 1993). Hales and Shams (1990) investigated tourists' decision-making processes when selecting holiday travel destinations. The results indicated that the majority of respondents (approximately 80%) chose a familiar destination. Cheron and Ritchie (1982) studied leisure activities and identified a significant inverse relationship between risk perception and familiarity. In other words, the greater familiarity individuals have with a leisure activity, the less risk they perceive. This was also supported by Han (2005) who noted that a sense of familiarity was correlated with lower perceived levels of risk when considering travel to a familiar destination. Furthermore, Moon et al. (2021) confirmed that consumers are more likely to use online shopping channels if they are more familiar or have more knowledge about COVID-19. While this concept has been applied in various contexts such as leisure and general international tourism, it has not been explored in relation to border tourism especially within the U.S.-Mexico border. Prior research has noted that familiarity with what is on the other side of a border can alleviate the barrier effect associated with the border (Leimgruber, 1988, 1989). However, there is a lack of empirical research to support this relationship, especially in the context of border tourism. Therefore, this research will contribute to filling this research gap in the tourism literature. The following hypotheses creates a framework for our study:

H1: There will be a significant negative relationship between respondents' levels of familiarity and their perceived risk across all dimensions of risk when considering travel to destinations along the U.S. – Mexico border.

2.3 Media exposure

Advances in communication and technology systems have enabled people to discover places and events happening in the world without visiting them. These advancements have created both advantages and disadvantages for the tourism industry. One pervasive difficulty is the media's focus on negative stories which include crime, terror, or other severe accidents or incident. The media may influence and shape the risk perception of a destination because it is a primary source of

information used by tourists and informs them of risks related to a destination (Avraham & Ketter, 2008). As a result, tourists may perceive a destination to be risky due to the influence of the media based on the risk perception of the destination (Sönmez, 1998; Wang et al., 2021). Sönmez and Graefe (1998a) claimed that travel advisories put out by governments can have the potential to negatively impact tourism. Schroeder and Pennington-Gray (2014) also suggested that exposure to information through media and government travel advisories influence destination risk perceptions. For instance, scholars have noted that high exposure to internet and social media information has strengthened the relationship between perceived risk and panic buying in the era of COVID-19 (Du et al., 2020; Li et al., 2021).

In the context of border tourism, Canally (2004) indicated that the perception related to crime and violence was developed from information on the border from media or from friends and relatives, which were found to be important indicators of students' perceptions of border towns. Considering nearly half of respondents (48%) had heard warnings from friends or relatives about crime or violence in Mexican border towns, word of mouth seems to be the most prevalent form of information on Mexican border towns, and its influence on students' perceptions of safety seems to play a significant role. Sönmez and Graefe (1998a, 1998b) claimed that this is a concern since information obtained from various sources might influence on tourists' perception of risk and their travel making decisions. The findings from previous studies reveal a significant positive relationship between perceived risk and media. However, there is a need for empirical research to investigate if exposure to media has an impact on tourists' perceived risk when considering travel to destinations along the U.S.-Mexico border specifically.

H2: There will be a significant positive relationship between media exposure and perceived risk when considering travel to destinations along the U.S. – Mexico border.

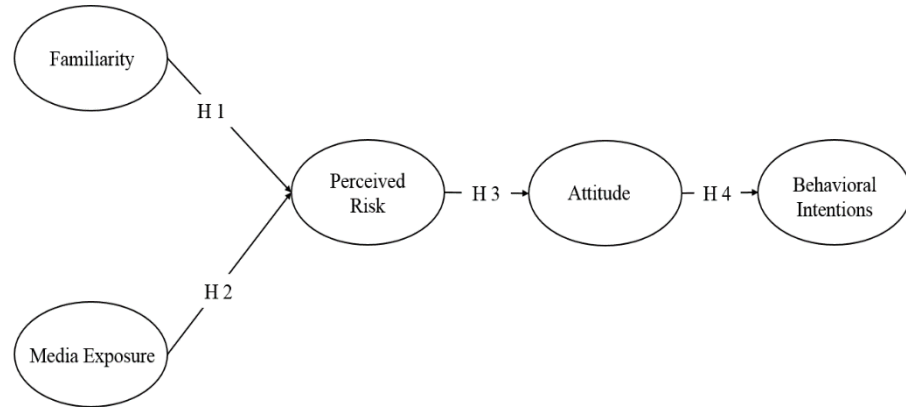
2.4 Attitude and behavioral intention

Decision-making processes related to travel destination choices are complex and become even more complicated with the consideration of potential risks. As the level of risk surpasses the acceptable threshold for a tourist, the presence of risk and fear can lead to changes in travel decisions. Tourism studies often measure the relationship among perceived risk, attitude, and intention (Lam & Hsu, 2004, 2006; Sparks, 2007; Zhu & Deng, 2020). In the context of tourism, attitude is defined as “predispositions or feelings toward a vacation destination or service” (Lam & Hsu, 2006, p. 591). Intentions are referred to as the likelihood of choosing a destination. Empirical evidence indicates that perceived risk has been demonstrated to be a strong predictor of attitude and behavior intention (Sánchez-Cañizares et al., 2021; Sönmez & Graefe, 1998; Suh et al., 2021; Viet et al., 2020). Moreover, prior research has revealed a significant positive relationship between satisfaction and behavioral intention (Schuett et al., 2016; Song et al., 2018; Wang et al., 2020). Sánchez-Cañizares et al. (2021) noted that the perceived risk of travel in situations caused by the COVID-19 pandemic negatively affected both travel attitudes and intentions. Quintal et al. (2010) applied constructs from the Theory of Planned Behavior (TPB) to examine its relationship with perceived risk. The results indicated a negative relationship between perceived risk and international tourists' attitude and a positive relationship between attitude and intentions. However, the scarcity of empirical data on this topic calls for further research to examine the relationships among perceived risk, attitude, and behavioral intentions especially in the context of border tourism, which has been largely ignored in the tourism literature. Based on the previous discussion, the following hypotheses were established as follows:

H3: There will be a significant negative relationship between perceived risk across all dimensions of risk and respondents' attitudes towards considering travel to destinations along the U.S.-Mexico border.

H4: There will be a significant positive relationship between respondents' attitudes and intentions to travel to destinations along the U.S.-Mexico border.

Figure 1. Proposed conceptual model



3. Methodology

3.1 Survey instrument

Quantitative research methods were applied to establish conceptual models and test the proposed hypotheses. In order to ensure consistency, constructs were measured using scales obtained from previous studies. Familiarity was measured with two items (e.g., “I am knowledgeable about the region”) based on those used by Cho (2001) and Han (2005). The measurement scales of media exposure were composed of four items (e.g., “I read what is going on in the media surrounding U.S.-Mexico border issues”) were adopted from prior research (Martinez, 2000; Schroeder & Pennington-Gray, 2014). The measurement of perceived risk consisted of 25 items which were mostly adopted from past studies associated with international travel (Canally & Timothy, 2007; Han, 2005; Timothy & Tosun, 2003). Three items were developed for the study that directly related to traveling to the U.S.-Mexico border region (e.g., “Drug traffickers in this destination are more likely to create problems for me,” “Showing my passport at checkpoints seems unnecessary,” and “Showing authorities my identification at checkpoints would be an important safety measure”). All items of perceived risk, familiarity, and media exposure were rated on a five-point Likert scale (1=not at all to 5=extremely). The items of attitude and intention to travel to destinations along the U.S.-Mexico border (El Paso and Big Bend) were based on the measurement scales of the TPB (Ajzen, 1988, 1991; Lam & Hsu, 2004). Attitude contained ten items allowing respondents to rate their perception of travel (e.g., unenjoyable-enjoyable, safe-dangerous) and measurement of intention contained two statements, (e.g., “I would like to travel to El Paso and Big Bend, Texas in the future”); both were measured on a 7-point semantic differential scale.

3.2 Study area

As perceived risk can vary by task, Mitchell (1994) advocated utilizing a buying scenario when crafting a methodology. In order to examine perceived risk when traveling to the Mexican border region comprehensively, two different destinations were selected as target scenario destinations: El Paso and Big Bend, Texas. Both cities are located close to the Mexican border, but they have different characteristics as travel destinations. El Paso is located in west Texas, where Texas, New Mexico and Mexico connect. The population of El Paso is estimated to be close to 680,000 and the cultural make-up of the city is largely Hispanic (80%). The landscape of El Paso

consists of 256 square miles (663 km²) of developed urban area, which offers a variety of activities or attractions (e.g., downtown tours, shopping, museums).

Big Bend, on the other hand, is located in Brewster County. Although it is one of the largest counties in the United States, the local population consists of approximately 9,500 individuals. The cultural make-up is approximately 40% Hispanic or Latino. The landscape is largely characterized by 1,251 square miles (3,242 km²) encompassing Big Bend National Park which is one of the largest, most sparsely populated, arid, rugged, and remote national parks. It lies 315 miles southeast (about a six-hour drive) of El Paso, providing a variety of natural and cultural attractions (e.g., hiking, camping, horseback riding). Since El Paso and Big Bend are situated on the Rio Grande River directly across from Ciudad Juárez and Boquillas, Mexico, vehicles on highways leaving El Paso and Big Bend are stopped at checkpoints to be visually inspected and questioned by Border Patrol agents. No documentation is required at a border patrol checkpoint for US citizens; however, individuals are asked some questions regarding the trip. Non-US citizens should carry the appropriate documentation (e.g., passport/visa) as border patrol agents are required to verify the immigration status of each foreign traveler.

3.3 Data collection

This study consisted of a sample size that was five to twenty times the number of estimated parameters (Kenny, 2014) utilizing an online panel survey. Online panel surveys are distributed through professional companies that have retained a distribution list of respondents paid to complete surveys. By using a panel survey for research data collection, the researcher is able to impose limitations on survey respondents, declare the length of the survey, request specific demographics based on the research purpose, and require all surveys to be completed without missing responses. The panel company then contacts those who meet the research criteria and invites them to participate in the survey when convenient.

Thus, an online survey company, Survey Monkey, was used to identify a cross-section of Texas residents and respondents that were at least 18 years old living in Texas. An equal gender response rate preference was requested to provide an even balanced sample response. After developing an online survey questionnaire using a Survey Monkey account, survey links were created. The survey links were sent to the company and distributed to survey panels that were already registered to Survey Monkey as members. The data collection period ran from July 8-11, 2015. While data collection methods generally have their own advantages and disadvantages, previous studies have shown that panel survey findings are valid and consistent (Li & Petrick, 2008; Quintal et al., 2010).

3.4 Data analysis

The statistical software, Statistical Package for the Social Sciences 23 (SPSS) and Analysis of Moment Structures 23 (AMOS) were used for data analysis. In order to address concerns relating to panel respondent representativeness and non-response bias, cross-validation of demographic sample characteristics was completed using data from the US Census (2015). The characteristics of the respondents were analyzed using descriptive statistics and exploratory factor analysis (EFA) was then run to generate dimensions of perceived risk. A total of four research hypotheses were tested through Structural Equation Modeling (SEM) using AMOS.

4. Results

4.1 Profile of the survey respondents

Of 490 respondents who completed the survey, two responses were deleted after data screening, as they were below the age of 18. As shown in Table 1, 52.3 % were female and 47.7% were male, with an average age of 43 years. Slightly less than half of respondents were in their 20's and 30's (43%) and slightly more than half of respondents had a college degree (56%). The majority

of respondents (93.2%) were from the USA and half of the respondents (50.8%) were working full-time. The majority (73.2%) of the respondents were White/Caucasian while 10.2 % of respondents considered themselves Hispanic or Latino. The median income of the respondents ranged between \$50,000 and \$99,999.

Table 1. Comparison of Population

Variables	Survey Participants (%)
Median age	42 years old
Gender	
Female	255 (52.3)
Male	233 (47.7)
Education	
High school and below	102 (20.9)
College degree	273 (56)
Graduate degree	113 (23.1)
Race	
White/Caucasian	357 (73.2)
Asian	44 (9.0)
Hispanic/Latino	50 (10.2)
Black/African American	33 (6.8)
Employment	
Full-time	248 (50.8)
Part-time	47 (9.6)
Homemaker	56 (11.5)
Student	43 (8.8)
Retired	80 (16.4)
Others	14 (2.9)
Income	
Less than \$20,000	51 (10.5)
\$20,000 to \$44,999	136 (27.9)
\$50,000 to \$99,999	182 (37.3)
Over \$100,000	119 (24.4)

4.2 Measurement model

To check the construct validity and to reduce the items into a smaller number of dimensions, factor analysis with Varimax rotation was performed on 25 perceived risk items using 488 responses from the entire sample. Using eigenvalues of one as a cutoff, a five-factor solution was produced. The MSA score was 0.917, which fell within the meritorious range according to Hair et al. (1998). This initial five-factor solution explained 60% of the total variance, which meets the satisfactory level of 60% (Hair et al., 1998). Two items (e.g., “I will be perfectly safe” and “Showing my passport at checkpoints seems unnecessary”) were deleted for cross-loading.

In the next trial with 23 variables, five factors having eigenvalues greater than one were extracted. The MSA index dropped slightly to 0.916 while the percentage of the total variance explained slightly increased to 60.74%. Therefore, the five-factor dimension with 23 variables was determined to best represent the underlying dimensions of perceived risk (see Table 2). The five factors identified in the study were labeled as personal safety (factor 1), conveniences (factor 2), border patrol concerns (factor 3), border patrol importance (factor 4), and communication concern

(factor 5). Other variables including familiarity, media exposure, attitude, and behavioral intentions were extracted as one dimension. Cronbach's alpha values were above acceptable levels (above 0.60) except for factor 4 (border patrol importance) and factor 5 (communication concern). The reliability of 'border patrol importance' (0.55) and 'familiarity' (0.53) were slightly below acceptable levels. Cronbach's alpha increases as more items in the scale increase. Increasing the number of items can be a method to drive the alpha to a satisfactory level (Hair et al., 2006). This reflects the notion that instruments and scales with a higher number of items are more dependable. It also signifies that comparing alpha levels between scales with different amounts of items is not suitable. Considering the number of items for 'border patrol importance' and 'familiarity' it makes sense that the reliability for these factors is lower than other factors. A high value of Cronbach's alpha is indicative of suitable internal consistency for items in a scale, but it is not indicative of a unidimensional scale (Gliem & Gliem, 2003). Given the exploratory and sensitive nature of the current study, although, factor 4 and factor 5 showed relatively lower Cronbach's alpha values, they were retained for further analysis as these factors were one of the key dimensions in this research.

Table 2. Measurement properties

Items	Factor Loading	Eigen Value	% of variance	Cronbach's α
FACTOR 1: PERSONAL SAFETY		5.77	25.07	.92
I am more likely to be a victim of crime than on other trips	.84			
I am more likely to witness violence than on other trips	.81			
Crime due to drug trafficking is more likely to create a problem than on other trips.	.80			
I am more likely to be hurt by strangers	.79			
I would feel worried about my personal safety	.78			
News I have heard about this destination would discourage me from doing some activities	.71			
I am more likely to get sick from food or water than on others trips I would take	.68			
There is a higher possibility of contracting infectious diseases than on other trips I would take	.66			
Dealing with an unexpected health issue would be more of a concern than on other trips	.58			
FACTOR 2: CONVENIENCES		2.86	12.42	.75
The internet will be easy to access	.79			
I would be able to use my cell phone easily	.73			
The cleanliness of tourist facilities would meet my standards	.64			

Getting help if my car breaks down would not be a concern	.57			
I would not worry about access to good health care services	.56			
Local residents would welcome tourists like me	.56			
FACTOR 3: BORDER PATROL CONCERNS				
		2.17	9.41	.76
Answering customs and immigration related questions would be intimidating	.82			
I would worry about procedures at border check points	.82			
I would be afraid of breaking an unfamiliar law	.59			
FACTOR 4: BORDER PATROL IMPORTANCE				
		1.59	6.93	.55
Showing authorities my identification at checkpoints would be an important safety measure	.78			
The presence of the border patrol would make me feel safe	.76			
FACTOR 5: COMMUNICATION CONCERNS				
		1.59	6.91	.63
I would not be concerned about communication problems with other people	.74			
It is important to interact with people who speak English.	.69			
Communicating with local residents will be difficult	.53			

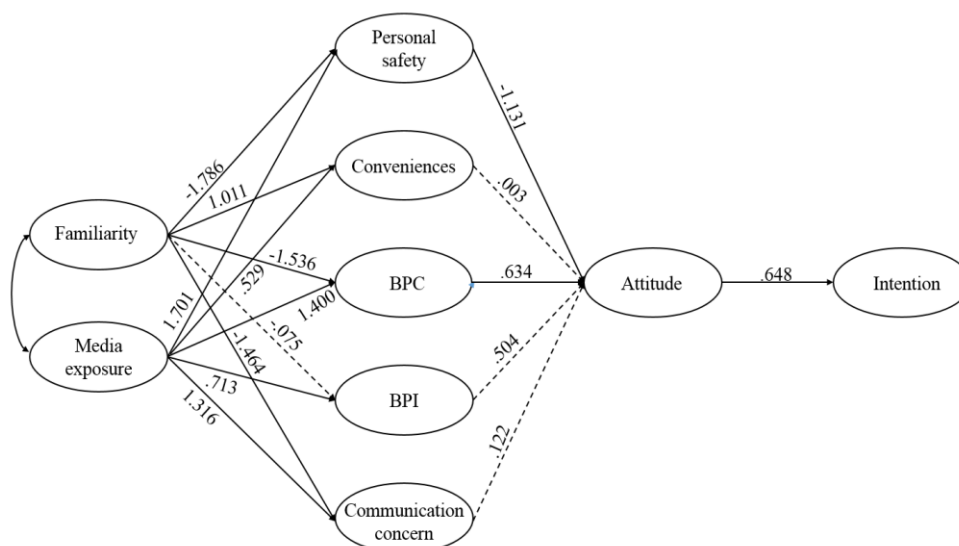
4.3 Structural model

Exploratory factor analysis (EFA) was used for model development in this study. EFA is often considered more suitable than CFA when the relationship between the latent factors and variables is unknown and not substantiated enough by theory or previous research. Since CFA does not show how well the items are loaded into non-hypothesized factors (Kelloway, 1995) and items were developed to measure perceived risk for this study, EFA was used. To estimate the structural model, Maximum Likelihood (ML) estimation was used and sixteen paths were estimated. The fit indices were chosen based on recommendations to evaluate the structural model put forth by Kline (1998) and Hu and Butler (1998). The following shows the model fit indices: $\chi^2=2.190$, (df=623, $p < 0.001$), CFI=0.936, NFI=0.889, and GFI = 0.870, RMR = 0.049, and RMR = 0.112. Although there are general guidelines regarding model fit acceptance (e.g., CFI should be at least 0.90), these cut-offs tend to be arbitrary (Bollen, 1989). In addition, Hatcher (1994) pointed out that a model does not have to demonstrate all of these characteristics in order to be acceptable. Even though the fit

indices of NFI and GFI were slightly lower than the ideal accepted level, they were sufficiently close to be utilized for further analysis. Fig. 2 presents the standard coefficients for each proposed path.

The results indicated that familiarity and personal safety ($\beta = -1.786$, $p < 0.05$), BPC ($\beta = -0.075$, $p < 0.05$), and communication concern ($\beta = -1.464$, $p < 0.05$) are negatively related to each other. However, familiarity was positively related to conveniences ($\beta = 1.011$, $p < 0.05$). Therefore, hypothesis 1 was partially supported. The relationships between exposure to media information and the five dimensions of risk when traveling to destinations along with the U.S. – Mexico border revealed that media exposure positively contributed to all of the dimensions of risk. Thus, hypothesis 2 was supported. Considering the relationships between the dimensions of perceived risk and attitude, only personal safety and BPC showed significant relationships as personal safety was negatively related to attitude ($\beta = -1.131$, $p < 0.05$) while BPC ($\beta = 0.634$, $p < 0.05$) showed a positive relationship with attitude. Therefore, hypothesis 3 was partially supported. In terms of the relationship between attitude and intention, there was a positive relationship between attitude intentions ($\beta = 0.648$, $p < 0.05$) suggesting as respondents exhibit a more favorable attitude towards traveling to destinations along the U.S. – Mexico border, their intention to visit to such destinations also increases. Therefore, hypothesis 4 was supported.

Figure 2. Structural model



Notes: * $p < 0.05$

** BPC (Border Patrol Concerns), BPI (Border Patrol Importance)

*** Dashed lines indicate paths that are not significant at the .05 level

5. Discussion

The results indicated that all dimensions of perceived risk except border patrol importance was significantly related to familiarity. Specifically, personal safety, communication concern, and border patrol concerns had an inverse relationship with familiarity, suggesting that as potential tourists become more familiar with regions near the U.S.-Mexico border such as El Paso and Big Bend, their perceptions related to personal safety, communication concern, and border patrol concerns decrease. In a broader context, these results are somewhat supported by previous studies suggesting that individuals who are familiar with vacation destinations are likely to have a lower level of perceived risk towards those destinations (Cheron & Ritchie, 1982; Han, 2005).

The relationship between familiarity and conveniences were positive implying that as tourists became more familiar with El Paso and Big Bend, they increasingly perceived traveling to those

destinations as convenient. However, the relationship between familiarity and border patrol importance was not statistically significant. This could be due to the fact that both of the destinations are located within U.S. territory, where border procedures at checkpoints are enforced and the presence of the border controls. The findings also indicated that media exposure and risk perception are positively related, suggesting that the more tourists are exposed to media, the higher levels of risk they perceive. This finding is consistent with the existing body of research suggesting that higher amounts of violence in mass media serves to elevate the public's risk perception and panic buying (Du et al., 2020; Li et al., 2021; Surette, 2007). Media exposure had a significant effect on the dimension of "personal safety". As individuals are exposed to stories about border issues in the media, their concerns about personal safety, particularly in relation to crime, food, and water tend to increase. On the other hand, the effect of media on conveniences was the lowest when considering travel to El Paso and Big Bend. These destinations are located within the U.S. and respondents may have preconceived expectations. For instance, respondents may assume that being within the U.S., they could easily access the internet or use their mobile devices.

Although the relationship between tourists' perceived risk and traveling intentions (e.g., Kovačić et al., 2020; Viet et al., 2020) has been extensively examined in tourism literature, investigating the correlation between tourists' perceived risk and attitude especially in the context of border tourism has been relatively unexplored. According to the results of the current study, there was a negative relationship between personal safety and attitude, but a positive relationship between border patrol concerns and attitude. Our findings suggest that an increase in respondents' concerns about their personal safety when contemplating a trip to either El Paso or Big Bend is associated with a more negative attitude.

It is interesting to note that the relationship between border patrol concerns and attitude shows a positive relationship. Even though respondents think that answering customs and immigration related questions would be intimidating and they worry about procedures at border checkpoints, their attitude regarding traveling to El Paso and Big Bend is favorable. Respondents might recognize border procedures as inconvenient, yet they may perceive these measures as necessary for enhancing the safety of the destinations. The relationship between communication concern and attitude displayed a positive correlation, although it did not reach statistical significance. This lack of significance could be attributed to respondents' expectations of minimal communication issues, given that El Paso and Big Bend are located within the United States. It seems that having additional language skills may not be a major determinant associated with decision making on the U.S. side of border travel. In terms of the relationship between attitude and intention when considering travel to El Paso and Big Bend, a positive relationship was shown, suggesting that the more respondents have a positive attitude towards travel to those destinations, their intention to travel also increases. Such positive relationships have been strongly supported by existing studies in tourism literature (Quintal et al., 2010; Sánchez-Cañizares et al., 2021; Sónmez & Graefe, 1998)

6. Implication

6.1 Theoretical implications

This research has several theoretical implications. This study is one of the first to introduce the concept of perceived risk into the context of border tourism using the U.S.-Mexico border as a destination. It is important to note that even though perceived risk has been examined in the context of tourism, mostly from the perspective of international travel studies, examining perceived risk concepts in border tourism remains limited. Applying the concept of perceived risk to unexplored contexts contributes significantly to our comprehension regarding the topic.

The results contribute to the literature related to perceived risk of tourists by identifying specific dimensions associated with travel to border regions. In the current study, five dimensions of risk perception were identified which differentiates from the findings of past studies. Existing

literature indicates that dimensions of perceived risk in general international tourism commonly identified include: 'Time Risk', Financial Risk', 'Equipment Risk', 'Physical Risk', 'Health Risk', 'Social Risk', 'Psychological Risk', 'Political Instability Risk', 'Terrorism Risk', and 'Satisfaction Risk' (Cheron & Ritchie, 1982; Matiza & Slabbert, 2021; Sönmez & Graefe, 1998a, 1998b; Stone & Mason, 1995). The current study makes a significant contribution by identifying perceived risk dimensions closely related to border tourism, such as border security problems and physical safety issues associated with drug trafficking. Specifically, newly developed items regarding risks that tourists would deal with when going through border procedures and safety measures as well as risks associated with specific types of personal safety were identified. This indicates that the dimensions of perceived risk in traveling to destinations along the U.S.-Mexico border are different from dimensions of perceived risk in general international travel. Furthermore, this supports the view that the types of perceived risk are specific to the situation due to variation from one destination to another (Sharifpour et al., 2013).

This study examined the relationship of perceived risk and tourists' attitudes toward traveling to the U.S.-Mexico border. Even though perceived risk in tourism has attracted significant attention and empirical evidence has identified a strong correlation between perceived risk and travel intentions, research on the effect of perceived risk on attitude has been limited. Therefore, this study has made a substantial contribution to the exploration of how tourists' attitudes change when considering travel to border regions and their perceptions of various risk factors. Our study revealed that if tourists perceive elevated levels of risk when contemplating travel to the U.S.-Mexico border region, their inclination towards visiting the area becomes negative. However, positive attitudes may lead to greater intentions to travel to the destination. Our results are consistent with previous literature (Han, 2005), despite the focus on distinct tourist destinations. These findings also provide researchers insight into understanding risk perception in the context of border travel, which has rarely been studied within the context of destination choices.

6.2 Practical implications

There are empirical implications that should be considered by practitioners interested in boosting border tourism by attracting tourists to border regions. The results of the current study suggest that tourists who are familiar with border regions perceive less risks at such locations. Moreover, our research revealed that individuals in the Texas tourist market exhibit a higher association of personal safety when considering travel to the U.S.-Mexico border region. Specifically, tourists tend to prioritize issues related to food safety, risk of being a crime victim, and drug trafficking. Therefore, tourism practitioners should identify methods to mitigate these specific elements of risk through educational incentives (Choe & Schuett, 2020). For instance, practitioners and professionals in the tourism industry should ensure the provision of easily accessible and accurate information for first-time travelers to such destinations. This information may be crucial for advising tourists on matters related to food or water consumption in the area.

Tourism officials should be aware that potential tourists who consider traveling to the U.S.-Mexico border region also have concerns about crime and drug issues. Creating a safe environment for tourists is essential (Prideaux & Dunn, 1995; Schuett et al., 2016); therefore, establishing unified partnerships among tourism industry officials, public and private stakeholders, and law enforcement agencies would be the most effective approach to inform potential tourists about safety issues. Perceptions of safety seem to be strongly related to border inspections at checkpoints and the presence of the Border Patrol, which is increasingly necessary in specific tourist destinations such as the Mexican border region. Due to the characteristics of an international border, strict regulations and rigid border patrol inspections are required. Tourists recognize border inspections as an important safety measure, but it can also be a perceived risk due to lack of familiarity with procedures. According to Canally (2004), respondents expressed dissatisfaction with standing in

line and fear of possible arrest. The act of waiting in line and undergoing interviews may be a factor that contributes to the perception of risk for tourists. Therefore, tourism industry officials, public and private stakeholders, and law enforcement agencies should cooperate to find a way to address both issues: enforcing the law and alleviating anxiety related to border procedures. These strategies would promote positive attitudes among tourists regarding traveling to the border region, and further contribute to increasing their behavioral intention to visit the area.

The results of the current study indicate that the impact of media exposure on tourists' risk perception is quite significant. Tourists can discover what is happening in the world without travelling due to advancements in technology and communication systems. The impact of the disadvantages of technology on the tourism industry can be tremendous especially when individuals hear about negative stories involving drugs or other crime issues. These may result in shaping negative images of tourist destinations. Consequently, tourists may perceive a destination as risky, regardless of the report's accuracy. As a result, tourists may avoid traveling to such destinations. Therefore, tourism professionals should screen information that is dispersed through the sources that will have greater influence on their target markets. The coverage in the media that a tourist destination receives should be observed regularly in order to provide accurate information. If misinformation is found, it should be addressed before potential tourists perceive it as reality. Moreover, in general, the media tends to focus on events and accidents that happen on the border while the positive experiences of tourists at the border region are often overlooked by the media. While negative incidents from around the world are easily accessible, it is more challenging to come across positive stories that can leave potential tourists with favorable impressions of a destination.. Therefore, tourism practitioners should seek to build a destination image that provides a unique experience for tourists considering the characteristics and benefits of "border tourism" that other tourism products do not offer. Moreover, it will be important to share positive travel experiences through social media platforms such as Facebook or Twitter (Choe et al., 2022) by tourists who traveled to the border region which would assist in reducing unnecessary perceived risk or fear for potential tourists that are considering traveling to border regions.

5.3 Limitations and future studies

While the findings of the present study hold significance within the body of literature on perceived risk, there are a few limitations to consider. Data was collected only from Texas residents through an online survey panel; therefore, findings and conclusions of this study may not be generalized across the entire tourist population. Moreover, a higher percentage of White/Caucasian respondents (73.2%) compared to non-White/Caucasian respondents could have resulted in respondent bias concerning race and ethnicity. Future research should consider the racial and ethnic composition of respondents to ideally draw conclusions that are more accurate for the general population. Furthermore, looking at cultural differences in terms of different types of risk perception by race, ethnicity, or nationality would be meaningful in order to understand the characteristics of perceived risk on a global scale. Thirdly, since this study sought to identify specific dimensions of perceived risk in relation to border tourism, some risk perception items were developed for this study that have not been validated in the past. Finally, data for the study were collected using online surveys. Therefore, responses from non-survey panelists or from respondents who have difficulty accessing online surveys were excluded. In addition, the short period of time for data collection may be a limitation of the study.

Based on the outcomes of the current study, further research should be carried out to develop a more reliable scale of perceived risk in the context of border tourism. By doing so, the scale could be applied to measure tourist's perceptions of risk in U.S. border tourism in different settings such as California, Arizona, and New Mexico. It would be interesting to determine if potential tourists perceive the same dimensions of risk or which type of risk is perceived significantly (or is the most

prevalent) when considering travel to destinations located in other states which share a border with Mexico. To extend the scope of the investigation, comparing tourists' perceived risk of travel to the Mexican border region with other international border regions such as Canada, Europe, or parts of Asia would also be meaningful.

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