





THE ASSESSMENT OF RISK TOLERANCE OF HUNGARIAN TRAVELLERS TOWARDS ABROAD TRIPS

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Abstract. This study identified and examined significant factors affecting the risk tolerance of Hungarian travellers towards abroad trips. Data for the empirical research was derived from an online survey. The final questionnaire included 45 statements describing aspects of travel safety and travel preferences. There was a total of 496 responses, which enabled them to be analyzed. A structural equation modeling (SEM) approach was used to develop the model of risk tolerance assessment. As a result of the study, physical security, price sensitivity, mood-driven factor, and destination's image in the media may be considered as substitutes for determining travellers' risk tolerance. This research contributes to the body of knowledge by supporting the proposition that inner personality traits and image factors may influence tourism preferences, suggesting future studies should use a multivariate approach to explain and predict tourism choices. Tourism managers and private companies operating in this sector can find the results of this study very helpful in planning and promoting tourism to risky destinations.

Keywords: perceived risk, risky destinations, mood-driven, image in the media, price sensitivity, travellers' risk tolerance.

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1. Introduction

In recent years, we have witnessed an increase in the perception that an individual is more likely to be a victim of terrorism, an international conflict, or a health hazard. Tourism may suffer serious consequences as a result of an increasing perception that the world is a more dangerous place to live and travel (World Economic Forum, 2022). Thus, if the tourism industry is to be prosperous, researchers need to increase their understanding of risk perception, the constituent elements of its formation among potential tourists, and how to manage it (Kiyak & Labanauskaite, 2020).

The literature on tourism risk has been criticized for the lack of a theoretical foundation and thereby limiting the creation of new knowledge (Yang et al., 2017; Wang et al., 2019; Cheer et al., 2021). It is apparent that a significant research gap exists in the review literature regarding crisis management, risk management, and disaster management research conducted in the hospitality and tourism sectors, particularly in the digital era; and such a research need is becoming increasingly important following modern challenges such as COVID-19 (Wut et al., 2021) or the Ukrainian conflict (Horiachko, 2021).

Therefore, in light of this, we are particularly interested in identifying and categorizing the underlying risk factors associated with travel destinations and tourism activities in different contexts. The use of valid and reliable scales to assess the level of tourists' risk tolerance and its impact on tourist behavior. An investigation into how uncertainty, worry, fear and anxiety influence the choice of tourist destinations and how they influence tourists' risk tolerance. The ways in which these factors could be mitigated.

There are some factors that can influence tourists' choice of destination, even when there are security risks involved. Some tourists may be more risk-affine or risk-averse than others, depending on their personal and psychological characteristics, as well as their cultural orientations (Ruiz-Sancho et al., 2021; Rahman et al., 2021). And vice versa, some tourists may be motivated by the cultural or experiential aspects of a destination, regardless of the potential hazards (Mitchell & Vassos, 1997; Yang et al., 2015; Karl, 2016; Jackson, 2001). As well, tourists can choose a destination despite the obvious security risks if they perceive the benefits to outweigh the costs, or if they have strategies to cope with the risks. Based on these arguments, we formulate the concept of "Traveller's Risk Tolerance" and place it at the center of our research model.

The tourist's risk tolerance can be viewed as a quantitative assessment of tourism security and how it affects tourists' purchase intention and revisit intention. Detailed discussion and final definitions of this issue will be provided in the corresponding sub-chapter, but for now it can be mentioned briefly again that, based on our literature analysis there is no consensus on the common dimensions of tourism risk tolerance and how it can be measured. Moreover, there is a lack of theoretical foundation to explain the relationship between tourism risk perception and predictors such as psychological and behavioural aspects of travel safety, lack of risk control, infrastructure security and negative destination image in the media. By attempting to fill in these gaps, this study is unique and differs from previous studies in a similar vein.

As a result of the above reasoning, it was determined that the major *purpose of this study* would be to identify and examine factors influencing travellers' risk tolerance. The following *research questions* have been formulated in this context:

1. What are the significant factors that determine and influence tourists' decisions regardless of perceived and potential risks?
2. How influential are each of the elements identified for choosing directions despite obvious risks?

The document is structured as follows. The next section presents a literary basis for 11 constructions that are intended to develop a research model. The five main hypotheses are then presented with their arguments and justifications. Afterwards, a detailed explanation of the methodology and the empirical results is provided. Lastly, we summarize and analyze our observations before drawing conclusions.

2. Literature review

This section discusses a few literary sources that contribute to constructing a study model of travellers' risk tolerance.

2.1. Traveller's risk tolerance

High risk tolerance is an essential quality of global travel and cosmopolitanism, as well as the solid foundation of personal resilience (Riefler et al., 2012; Veréb et al., 2020). Trying to achieve absolute safety at a tourist destination is an ambitious but unattainable goal, as there are always unpredictable and uncontrollable factors that may pose risks or threats to tourists and hosts, such as natural disasters, accidents, diseases, crime, terrorism, civil unrest (UN World Tourism Organization [UNWTO], 1997). At the same time, traveller's risk tolerance may be important for travel planning and decision making, as it can affect the choice of destination, mode of transport, accommodation, activities, and preventive measures.

As part of the framework of this topic, the following research initiatives are worth mentioning. A study conducted by Alan M. Williams and Vladimir Baláž (2013) examined how importance that travellers ascribe to specific types of tourism hazards and risk tolerance influences processes in travel and tourism. Zheng et al. (2021) examined how general public trust can mitigate perceived threat, fear, and travel avoidance after an outbreak of a pandemic. However, despite the fact that the topic is addressed in the studies mentioned and attempts are made to examine it from multiple perspectives, it is unfortunate that the authors fail to bring their reasoning to the final definitions.

In any case, in light of the approaches described above, we are looking for ways to deal with unpleasant givens, as noted in the research objectives. Therefore, based on the previous studies and carefully selected items (supplementary information), for the purposes of this research, *the travellers' risk tolerance is defined as the extent to which they are willing to take on a higher-risk tourist destination based on either perception that the trip is safe, that the risks are under control, or that the positive benefits offset the risks in their subjective decisions.*

2.2. Subjective safety perception

A person's internal feelings or perceptions of being safe or unsafe in a particular situation or environment is a subjective factor that can affect the traveller's tolerance for risk. A traveller's financial resources may influence their perception of safety, since they may enable them to access services and facilities of a higher quality or more secure nature. A study by Hasan et al. (2017) that reviewed the literature on tourist risk perceptions and revisited intention, and suggested that money-related risk is one of the key dimensions of perceived risk that affects tourist decision-making.

Travellers' self-confidence may also influence their perception of safety, since it may increase their resistance to illnesses, injuries, or exhaustion. They may therefore choose destinations that offer a greater degree of healthiness, sanitation, or relaxation, or they may avoid destinations that provide a lower level of these amenities.

In the context of risk, it is important to focus on perceptions of a situation, since personal risk perceptions (i.e., subjective assessments of the negative consequences of an event or

choice as seen from an individual's perspective) have been proven to be more important in determining choice than actual existing risks (Fuchs & Reichel, 2006; Karl, 2016).

We selected three statements (supplementary information) that can provide the basis for subjective safety perceptions, such as personal characteristics, financial resources, health status, and inner preparedness, based on the fact that *subjective safety perception can be defined as an individual's internal feelings or beliefs* regarding safety.

2.3. Information-seeking and planning behaviours of travellers

Among the ways in which tourists can reduce the risks associated with traveling is to seek information (Wang et al., 2019). The information about a destination can be found in a variety of forms, such as brochures, advertisements in newspapers or travel magazines, television programs, radio broadcasts, or information on the Internet, which has been recognized as a more value-added and fast-reaching form of external information sources (Lin et al., 2009) and has greatly helped tourists make travel decisions and plan their trips. Particularly, social media websites including different types of consumer-generated content sites including blogs, wikis, social networks, YouTube, Twitter, Flickr, etc., are popular ones on which individuals can post information about their travel experiences but also for people to search for relevant information (Xiang & Gretzel, 2010). So, *Information-seeking and planning behaviours of travellers can be seen as the actions that travellers take to obtain reliable and accurate information about the destination and to prepare for contingencies and emergencies before their travel.*

Following the logic of this literature, four statements (supplementary information) were selected as the basis for the appropriate dimension.

2.4. Travel safety preferences based on experience

Generally, repeat and experienced travellers have a more positive impression of the destination because they have experienced the location and are substantially more knowledgeable about its conditions. Consequently, experienced travellers have lower risk perceptions, are more relaxed, and have fewer fears (Fuchs & Reichel, 2011). In contrast, tourists who have never visited the destination tend to develop a sense of uncertainty and risk based on exposure to media and other sources (Promsivapallop & Kannaovakun, 2017). Three statements were used in this study to explore personal preferences regarding travel safety (supplementary information).

2.5. Lack of physical risk control

The topic "Lack of physical risk control" may closely relate to tourists' uncontrolled situations with physical well-being (Jonas et al., 2011), such as health risks (Gray & Wilson, 2009; Novelli et al., 2018), political instability (Zbucnea, 2015; Ruan et al., 2017), and crime exposure (Pizam & Fleischer, 2002; Hall et al., 2004). Some of these risk factors are beyond the control of tourists because they are influenced by external factors and events in the destination country. This component of tourists' risk perception has been explored through nine statements (supplementary information).

2.6. Lack of cross-cultural risk control

Lack of cross-cultural risk control for tourists is a topic that deals with the unexpected challenges tourists face when encountering different cultures and languages in their travel destinations. The sources of cross-cultural risk factors, such as language barriers, misunderstandings of cultural differences, and prejudices, can become a very serious source of problems and stressful situations on the spot (Yoo & Sohn, 2003; Hottola, 2004; Mancini-Cross et al., 2009; Lo et al., 2011). Because of this, oftentimes tourists choose destinations that have similar cultures to their own (Yang & Wong, 2012). In this study, three statements (supplementary information) were utilized to explore this aspect of tourists' risk perception.

2.7. Perceived importance of security

Health risks may occur at destinations where accommodations are of poor quality, hygiene and sanitation are inadequate, medical services are not well developed, and clean water is unavailable (World Health Organization [WHO], 2017). In terms of tourism infrastructure security, the physical aspect may be viewed as the protection of the tangible assets and facilities that are essential to the provision of quality and safe tourism services. As a result, it aims to prevent or mitigate potential physical damage. This may include logistical and travel security, secure accommodations, or the development of a system of public health institutions (see a.g. Khadaroo & Seetanah, 2014; Artuğer, 2015). Six statements (supplementary information) have been used to investigate this component of tourists' risk perception.

2.8. Legal security

The legal aspect of tourist infrastructure security refers to laws and regulations that aim to ensure the safety and protection of tourists, tourism facilities and services, and the environment from various threats and risks (Abayeldinov & Kala, 2016). Among the issues that can be addressed by the legal aspect of tourist infrastructure security are: unifying and harmonizing the law regulation of tourism activities, such as contracts, liability, consumer protection, and taxation (Imbeah et al., 2020). The legal aspect of tourist infrastructure security may vary depending on the destination, the type of tourism, and the level of development. However, it is generally recognized that a sound legislative framework is vital for enhancing tourism competitiveness and sustainability in certain tourist directions (Tsviliy et al., 2021). In order to examine this component of tourists' risk perception, three statements were used (supplementary information).

2.9. Price sensitivity factor

Price sensitivity factors in choosing a tourism destination refer to the degree to which tourists are influenced by the prices of tourism products and services, such as flights, accommodation, tours, and activities, when deciding where to travel (Masiero & Nicolau, 2012). Price sensitivity may change depending on the type of tourism product or service. Some tourists may be more sensitive to flight prices than activity prices, while others may be the opposite, meaning they are more willing to pay a higher price for destinations or

products that offer greater value, quality, or uniqueness. Two statements (supplementary information) were used to explore price sensitivity as an aspect of tourists' risk perception.

2.10. Mood-driven action

As a factor in choosing tourism destinations, mood-driven behavior refers to the influence of tourists' emotional states, such as happiness, excitement, boredom, or stress, on their travel decisions, including where to go, what to do, and how to spend their money (Lam & Hsu, 2006). In the absence of rational or planned considerations, mood-driven behavior can lead to spontaneous, unexpected, or impulsive decisions. Mood-driven behavior was examined as an aspect of tourists' risk perception using two statements (supplementary information).

2.11. Negative destination's image in the media

The results of several studies have shown that people perceive risk more positively when they have more confidence in information sources and agencies (Amir et al., 2015; Cui et al., 2016). While uncoordinated and confusing messages, as well as sensational media coverage of the disaster, could adversely affect the image of the destination in a negative way (Kapuściński & Richards, 2016; Veréb et al., 2020). Tourist arrivals to direct destinations may decline due to prolonged negative media coverage. For instance, repeated kidnapping incidents in Sabah have negatively affected Malaysia's tourism sector, in particular the number of tourists arriving (Som et al., 2015). Protracted media storms, which often follow the reporting of well-known crimes, can have devastating effects on countries that rely on tourism as the largest economic driver (Brown, 2015). Using the above as a reference, five statements (supplementary information) have been chosen as part of this study, which will also assist in determining the degree of impact of this factor.

Consequently, we were able to provide theoretical justifications for 11 of the elements that make up our research model. Then we can move on to the consideration of possible interactions between them, in accordance with the objectives of the research that we are conducting.

3. Research hypothesis development

It is hoped that the introductory overview has made it clear that existing categorisations of influences on travellers' perceptions of risk need to be explored, modified, and evaluated. In this section, each set of hypothetical statements will be discussed in greater detail.

3.1. Psychological and behavioural aspects of travel safety affects Traveller's risk tolerance (H1)

In formulating this hypothesis, the following three proposals, which have common characteristics, were considered.

H1a: Subjective safety perception positively affects Traveller's risk tolerance.

A study conducted by Meng et al. (2021) examined the relationship between COVID-19 risk perception, risk knowledge, and travel intention among Chinese travellers. It was revealed that one's self-confidence or lack of confidence in one's health status has an impact on destination choice.

It has also been extensively cited and tested in numerous areas of research to prove the concept of "optimistic bias". This is defined as the tendency for individuals to believe that they are less susceptible to negative experiences than others (Weinstein, 1989). An individual may, therefore, gradually and cautiously rely on one's intrinsic cues in order to reduce feelings of risk as a result of the inherent knowledge being built (Brunel & Pichon, 2004). *In this regard, it is assumed that "Subjective safety perception" can positively affect "Traveller's risk tolerance".*

H1b: Information-seeking and planning behaviours of travellers positively affects Traveller's risk tolerance.

Adding to the above description of the dimension, it can also be noted that travellers' information-seeking and planning behaviors can assist them in adjusting their expectations and attitudes towards travel risks and in coping with uncertainty and ambiguity. Since it has been found that tourists' sense of safety can be recognized from the way they process the information they receive, discuss, and store in their minds (Zou & Meng, 2020). *Consequently, it is assumed that "Information-seeking and planning behaviours of travellers" may positively impact "Traveller's risk tolerance".*

H1c: Travel safety preferences based on experience positively affects Traveller's risk tolerance.

While risk reductions for a first-time visit are primarily based upon external information search, those for repeat visits are built upon concrete personal visitation experience (Reid & Reid, 1993). Hales and Shams (1991) concluded that travellers' previous travel experience may be an indicator of their current as well as future consumption patterns. As experiences increase, travellers may incrementally and behaviorally move toward a preferred, but riskier, holiday destination.

At the same time, some of past research has an intention, but has not been able to finally determine whether prior visits to a particular geographical region or destination result in a lower level of perceived risk for the entire region (Williams & Baláz, 2013; Karl & Schmude, 2017).

In this regard, it would be interesting to check the following *assumption: "Travel safety preferences based on experience" may positively affect "Traveller's risk tolerance".*

The above assumptions can be combined thematically as related to the topic "Psychological and behavioural aspects of travel safety" by which we will mean the cognitive, emotional and action-oriented processes that travellers engage in before, during and after their travel to cope with the uncertainty and ambiguity of travel risks. *Our argument, therefore, is as follows: Psychological and behavioural aspects of travel safety can be considered as an influential predictor to Traveller's risk tolerance.*

3.2. Lack of risk control affects Traveller's risk tolerance (H2)

One of the key factors affecting the choice of risky tourist destinations is the controllability of safety (Horiachko, 2021). In order to formulate the hypothesis related to it, two proposals with common characteristics were considered.

H2a: Lack of physical risk control negatively affects Traveller's risk tolerance.

There are several factors that determine tourists' feelings of physical safety and perceptions of destinations, including level of crime exposure (De Albuquerque & Mcelroy, 1999; Pizam & Fleischer, 2002; Hall et al., 2004), perceptions of health risks (Jonas et al., 2011) and political stability (Zbucnea, 2015; Ruan et al., 2017). In this regard, several studies have suggested that the risk factors that may affect tourists' physical well-being are the most significant influencing factors of overall willingness to accept touristic risks (see e.g., Gray & Wilson, 2009). *Therefore, it is assumed that "Lack of physical risk control" may have a negative impact on the "Traveller's risk tolerance".*

H2b: Lack of cross-cultural risk control negatively affects Traveller's risk tolerance.

Hottola (2004) and Yoo and Sohn (2003) claim that tourists may experience role conflicts, lack of confidence, and defensiveness when traveling overseas due to cultural differences and a lack of language proficiency. Since cultural distance may increase the level of uncertainty and risk faced by tourists in a foreign country, cultural similarity, on the other hand, can indicate the degree of comfort and familiarity tourists may experience (Liu, 2014). In this regard, tourists are more likely to select culturally similar countries as destinations, according to some studies (Mancini-Cross et al., 2009; Lo et al., 2011; Garamvölgyi & Rudnák, 2016; Douglas et al., 2023). *Due to this, it is assumed that "Lack of cross-cultural risk control" might negatively affect "Traveller's risk tolerance".*

The assumptions above can be combined thematically as related to the topic "Lack of risk control". In this context, we refer to travellers who fail to identify, assess or take action to minimize or eliminate potential health, safety, and well-being threats arising from their exposure to environmental, biological, and cultural factors in their destinations as a result of their exposure. Our argument, therefore, is as follows: *"Lack of risk control" can be considered as an influential predictor of travellers' risk tolerance.*

3.3. The development of infrastructure security affects Traveller's risk tolerance (H3)

The hypothesis was formulated using the following two proposals that share common characteristics.

H3a: The perceived importance of security negatively affects Traveller's risk tolerance.

In Yang and Nair's (2014) review of risk in tourism, the authors assert that risk and risk perception are multidimensional concepts related to issues such as uncertainty avoidance, worry, anxiety, and fear. Thus, individuals who have a high degree of uncertainty avoidance refrain from engaging in activities whose outcomes may not be clearly predictable. From a risk-taking propensity context, this could mean tourists may decide not to travel to desti-

nations with less developed touristic infrastructures including transportation or accommodation as it is more difficult to estimate or predict the outcome of their vacation in such a destination (Karl, 2016). Due to this, it is *assumed that "General (physical) infrastructure security" might affect "Traveller's risk tolerance"*.

H3b: Level of legal security positively affects Traveller's risk tolerance.

It has been demonstrated that abuses of human rights, violent confrontations, and other aggressive incidents motivated by political agendas negatively affect tourist arrivals. While autocratic regimes have not engaged in any open violence, tourist arrivals are lower than those in more democratic regimes (Neumayer, 2004). Evidence indicates that a more independent judicial system and a higher quality legal system contribute to the development of tourism in a country (Gozgor et al., 2019). When a country has legal security corresponding to global standards, tourists are more likely to feel confident and trusting in the destination, as they feel protected by the country's laws and regulations (see e.g., Tarlow, 2011; Shadova et al., 2015; Preko & Gyepi-Garbrah, 2023). Therefore, it is *assumed that "Legal security" may positively impact the "Traveller's risk tolerance"*.

Assuming that the development of infrastructure tourism security involves the cooperation and coordination among various stakeholders, such as governments, tourism businesses, local communities and tourists themselves we have combined the two above assumptions into the following hypothesis: Infrastructure security affects traveller's risk tolerance.

3.4. Security-unrelated factors affects Traveller's risk tolerance (H4)

Despite the fact that the main subject of the presented study is related to tourist risks perception, it seems interesting to separate two dimensions that have side meanings.

H4a: Price sensitivity positively affects Traveller's risk tolerance.

The modern traveller has learned that since substantial price differences exist for the same or similar products, they are not required to pay full price for the same or similar products if they make effective use of the price information available (Yu, 1997; Kah et al., 2022). A number of studies have demonstrated the influence of price-sensitivity factors on tourism activities. More price-sensitive travellers make increased efforts in their tour information searches than those who are less price-sensitive (Kah et al., 2022). People are different, and a traveller who is highly sensitive to price is more likely to attend activities that are offered at a lower price than one who is less sensitive (Masiero & Nicolau, 2012). Money has always been a motivating and driving factor in any kind of activity. Accordingly, it has been *assumed that the taking into account "Price Sensitivity Factor" can significantly increase the level of "Traveller's Risk Tolerance"*.

H4b: The factor of Mood-driven action positively affects Traveller's risk tolerance.

It is quite natural for some groups of people to make vacation decisions in the absence of rational or planned considerations, as has already been outlined in the description of the corresponding dimension. As a result of mood-driven behavior, spontaneous, unexpected, or impulsive actions can be taken. For instance, in general, "sensation or novelty seekers"

are more tolerant of risk and despite the similar perceptions of risk, are more inclined to travel to those regions that are perceived as riskier (Lepp & Gibson, 2008). Accordingly, *it has been assumed that “Mood-driven action” factor might positively affect “Traveller’s Risk Tolerance”*.

Therefore, the following was hypothesized: Traveller’s risk tolerance can be significantly affected by non-security factors.

3.5. Negative destination’s image in the media affects Traveller’s risk tolerance (H5)

There is a low percentage of tourists who travel to countries that are negatively portrayed in the media (Amara et al., 2012). The majority of tourists follow closely and trust the information in the media, making them more sensitive to the mood of the current media news (Veréb et al., 2020; Wang & Yan, 2022). In a bibliometric study conducted by Pandey and Joshi (2021), 627 papers across 25 years were analyzed from the Scopus database and found that information and communication were important factors influencing destination choice. According to research, images in news stories in the media can impact both regular travellers and potential travellers (Keim & Somerville, 2017; Lepp & Gibson, 2008). Also, in response to fears, potential tourists became more aware of security needs and more concerned about them. In the majority of cases, this information is gathered from a variety of media sources, including TV and newspaper news bulletins, blogs and discussions online, social media, documentaries, and biographies and other non-fiction works (Veréb et al., 2020). *As a result, the following hypothesis was developed: A negative image of a destination in the media can have a significant negative impact on a traveller’s risk tolerance.*

As a result, we have developed a research model that includes attitudes related to tourism safety and risk-taking consists of ten explanatory and one explained dimensions (Figure 1).

These constructions formed the basis of 5 working hypotheses, which were further tested and discussed.

4. Material and methods

The purpose of this section is to provide an overview of the data collection process, the sample characteristics, and the research methodology.

4.1. Data collection and main sociodemographic characteristics of the sample

The data for the empirical research are taken from an online questionnaire survey. The online interface of the questionnaire was created using LimeSurvey questionnaire editing software. Participation in the survey was voluntary, and the questionnaires were completed anonymously on the basis of a random survey. Initially, 1000 respondents were set as the target. The online questionnaire was open for completion between 13 June 2022 and 4 September 2022. A total of 709 responses were received. The decision was made to exclude incomplete responses from further analysis (those that do not complete more

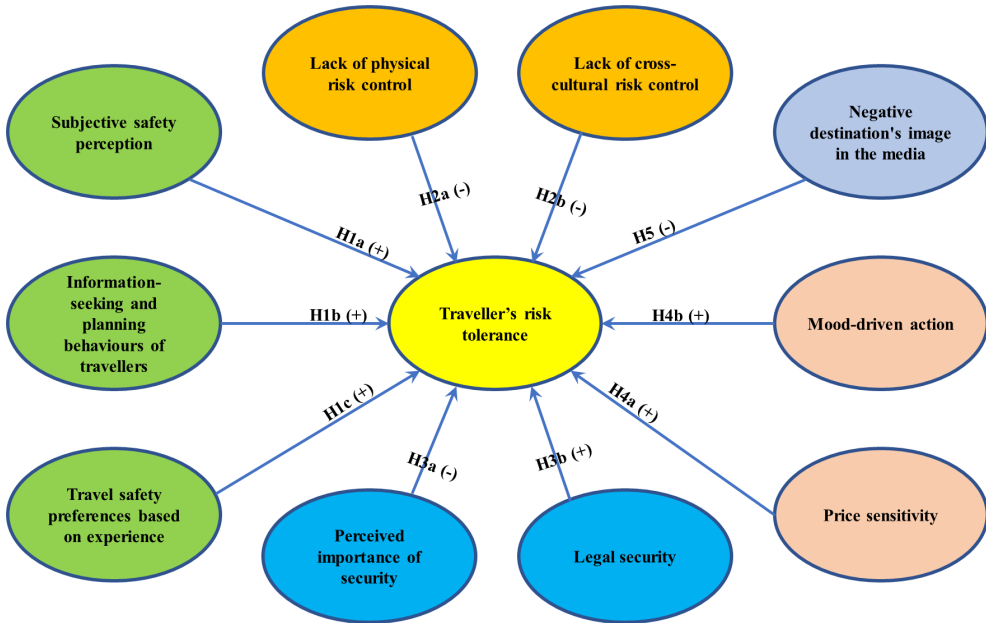


Figure 1. Research model (source: own editing)

than half of the full items). As a result, there were only 496 responses, which allowed them to be analyzed.

65.2% of respondents were female and 34.8% male (Table 1). In terms of age, most respondents – 35.3% – were in the 43–57 age group. In terms of highest level of education completed, 57.9% of respondents have a college or university degree. In terms of respondents' educational attainment, the sample was over-represented with higher education compared to high school graduates. This distribution by educational attainment can be seen as favorable in that it allows us to gain an insight into the views of respondents with higher education and more favourable conditions in terms of their financial and existential situation. In terms of marital status, 62.3% of respondents are married or in a civil partnership. Most respondents (55.4%) live in the capital. 10.5% of respondents live in a large city (large city = municipality with a population of over 100,000) and 15.1% in a medium-sized city (medium-sized city = population of 20–100,000). Regarding the income situation of the household, 54.6% indicated the "average" option in terms of per capita household income.

Table 1. Travel habits and main sociodemographic characteristics of the sample, $n = 496$ (source: authors' research)

Variable	Category	Number of respondents	Percentage
Gender	Woman	323	65.2
	Man	173	34.8

End of Table 1

Variable	Category	Number of respondents	Percentage
Age	18–21 years old	18	3.6
	22–35 years old	82	16.5
	36–42 years old	50	10.1
	43–57 years old	175	35.3
	58–65 years old	73	14.7
	Over 65 years old	98	19.8
Qualification	Primary education, vocational training	15	3.0
	High-school graduation	158	31.9
	College, university	287	57.9
	PhD	36	7.3
Marital status	Single	118	23.8
	Married, cohabiting	309	62.3
	Divorced, widowed	69	13.9
Type of place of residence, settlement	Village, farm	12	2.4
	Municipality (under 5 thousand inhabitants)	34	6.9
	Small town (5–19 thousand inhabitants)	48	9.7
	Middle Town (20–100 thousand inhabitants)	75	15.1
	Large city (over 100 thousand inhabitants)	52	10.5
	Capital	275	55.4
Household income situation*	Significantly below average	8	1.7
	Below average	47	9.9
	Average	259	54.6
	Above average	128	27.0
	Significantly above average	32	6.8
Frequency of travel abroad	Less than once a year	189	38.1
	Annually	169	34.1
	Every six months	116	23.4
	Monthly	17	3.4
	Several times a month	5	1.0
How to travel abroad	Travelling alone, self-organised	79	15.9
	On a package trip	20	4.0
	Traveling with friends, acquaintances	74	14.9
	Travelling with family, spouse/partner/boyfriend – girlfriend	286	57.7
	You are taking part in a trip organized by a travel agency	37	7.5

Note: *absolute and percentage distribution of valid responses.

In addition to socio-demographic data, the question on the frequency of foreign travel was the most frequently selected (38.1%), followed by “I travel abroad less than once a year” (34.1%) and “I travel abroad annually” (34.1%). When asked about the type of trip, 57.7% of respondents chose “travelling with family, spouse/partner/girlfriend”. A “business trip” or a “visit to a disaster site” were relevant for a small number of respondents.

4.2. Research methods

Eleven key groups of statements were used to construct the dimensions of the study. In the final questionnaire, 45 statements were included defining aspects of travel safety (supplementary information). For conversion into a survey format, the items were written as declarative statements containing an active verb, referencing traveller's experiences, and able to be rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire items were designed based on the current literature (supplementary information). For Traveller's risk tolerance, five items were raised, primarily from Sönmez and Graefe (1998), Riefler et al. (2012), Wang et al. (2019), and Zheng et al. (2021). Subjective safety perception, Travel safety preferences based on experience, Lack of cross-cultural risk control, and Legal security were respectively established with three items, with major reference to the empirical studies of Hasan et al. (2017), Meng et al. (2021), Promsivapallop and Kannaovakun (2017), Yang and Wong (2012). The constructs of information-seeking and planning behaviors of travellers and Negative destination's image in the media were derived from research conducted by Wang et al. (2019) and Veréb et al. (2020). The constructs of two-two items Price sensitivity and Mood-driven action were primarily developed based on the studies of Masiero and Nicolau (2012) and Liu et al. (2022). Lack of physical risk control construct was designed based on Gray and Wilson (2009) and Novelli et al. (2018). The six-item Perceived importance of security construct was developed based on Khadaroo and Seetanah (2014) and Artuğer (2015).

Initially, the constructs of the theoretical model were tested for validity. Confirmatory factor analysis (CFA) was used to test the reliability of the latent constructs representing the research dimensions. The confirmatory factor analysis was performed within Structural Equation Modeling (SEM) (Byrne, 2016). The reliability of the latent constructs was confirmed by testing the Cronbach's alpha. A value of the Cronbach's alpha coefficient above 0.7 indicated adequate internal consistency of the latent construct (Cortina, 1993). The reliability of a latent variable consisting of two statements was not checked by the Cronbach's alpha coefficient but by the Spearman-Brown coefficient, adopting the suggestion of Eisinga et al. (2013). A value of the coefficient above 0.7 is considered to be appropriate. The validity of the latent constructs was checked using the average variance extracted (AVE) and composition reliability (CR) indicators. The AVE value indicates the average proportion of the variances of the statements that make up a given latent construct that are compressed into the given artificial variable. A value of the indicator higher than 0.5 is considered acceptable (Hair et al., 2009; Baumgartner & Homburg, 1996). The compositional reliability (CR) indicator expresses the common fraction of variances for the statements that make up each latent construct. The threshold criterion for the value of CR requires that the CR of each latent variable in the model should be 0.7 (Hair et al., 2009). If the value of the average explained variance indicator is below the threshold value of 0.5, but the value of the compositional reliability indicator is above 0.7, the reliability of the latent structures is acceptable (Lam, 2012; Fornell & Larcker, 1981). The discriminant validity of the model was assessed using the Fornell and Larcker criterion (Fornell & Larcker, 1981): the square root of the average variance extracted by a construct must be greater than the correlation between the construct and any other construct. IBM SPSS Statistics 27.0 and AMOS 23.0 software were used to run the tests.

5. Results

The first part of this section provides the validity test results, along with mean and SD values for each construct and item. The second section presents the results pertaining to the structural model based on the hypotheses.

5.1. Validity tests and descriptive statistical analysis of the model's dimensions

The weight values obtained as a result of the control factor analysis exceed the threshold of 0.5 for all but the statement SFTYP2, which belongs to the dimension "Subjective safety perception", but are also close to 0.5 for the statement with the lowest weight value. The lowest value of the Cronbach's alpha indicator (0.639) measuring the internal consistency of the scales belongs to the dimension "Subjective safety perception". Although this value does not reach the value of 0.7, indicating a good internal consistency of the constructs, it can still be considered acceptable. The average variance explained (AVE) for five latent variables was below 0.5, while the composite reliability index (CR) was above 0.7 for all these constructs, indicating that the research dimensions are well measured in the model.

The values in Table 2 indicate adequate discriminant validity among latent constructs: the square root of each AVE in the diagonal is above 0.5 and higher than the inter-correlation of latent factors in the model.

Convergent validity and discriminant validity confirm that this questionnaire was valid and reliable for collecting data in the studied population.

The mean and standard deviation values of the scores for the statements that constitute the research dimensions (supplementary information) indicate that, on the five-point Likert scale used, Hungarian travellers have a low risk tolerance (1.70) and are less prone to mood-driven action (1.61).

The average of five dimensions exceeds the neutrality level of the five-point scale. Hungarian travellers attach greater importance (4.45) to Security of general infrastructure, including accommodation security, logistic security, information security, event security, health security and financial and banking safety. They are more likely to act in a safety-conscious manner by gathering information (4.13) and by relying on their own experience (4.09). Their perception of the importance of legal security, including relying on unified norms, procedures, and practices in laws and cyber security, resulted in an average score of 3.63 on a five-point scale. The importance of subjective safety was rated by Hungarian travellers with an average score of 3.35.

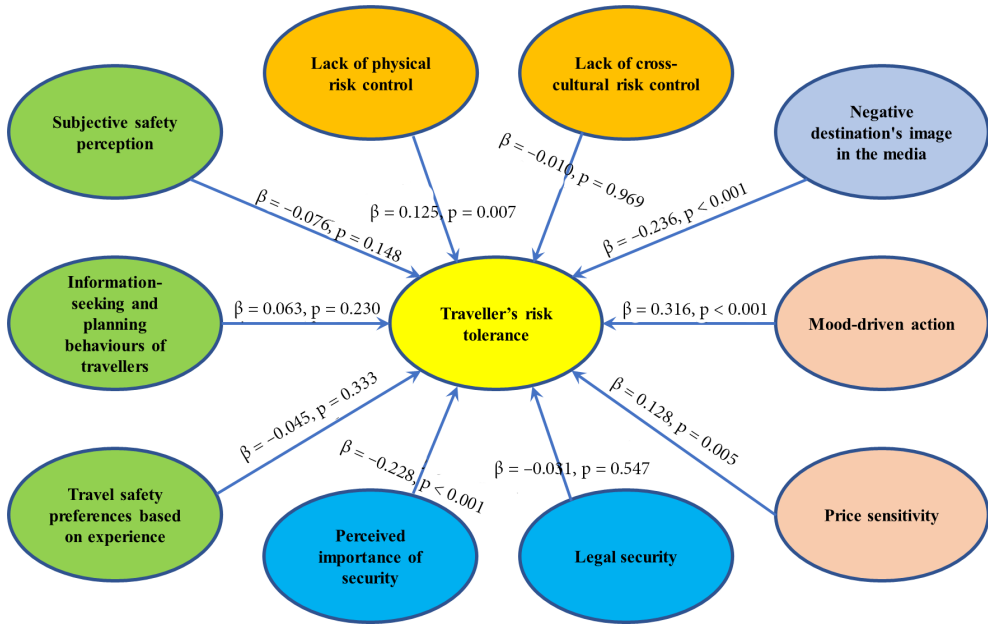
5.2. Structural model and hypotheses test

The assumptions of the research model hypothesis framework on the relationships between the study dimensions were tested using structural equation modeling (SEM). Among the ten explanatory dimensions included in the model, it's been verified the significant effects of six latent constructs on the target dimension of traveller's risk tolerance (Figure 2). The values of the standardized regression coefficients associated with the verified effects are circled in red. Of the three dimensions used to measure tourism-related safety awareness, only subjective safety perception has a weak negative effect on

Table 2. Discriminant validity based on the Fornell and Larcker criterion, n = 496 (source: author's research)

	RSKT	SFTYP	INFSK	EXPR	PHRSK	CLRSK	GESEC	LGSEC	PRSEN	MOOD	MEDIA
RSKT	0.713										
SFTYP	-0.126	0.610									
INFSK	-0.123	0.137	0.625								
EXPR	-0.176	0.135	0.314	0.710							
PHRSK	-0.038	0.231	0.213	0.153	0.766						
CLRSK	-0.158	0.251	0.204	0.279	0.417	0.659					
GESEC	-0.283	0.206	0.370	0.410	0.248	0.360	0.718				
LGSEC	-0.158	0.282	0.346	0.262	0.334	0.328	0.593	0.693			
PRSEN	0.094	0.100	0.010	0.038	0.158	0.083	0.095	0.076	0.906		
MOOD	0.323	-0.007	-0.262	-0.180	-0.138	-0.152	-0.186	-0.029	0.106	0.774	
MEDIA	-0.242	0.170	0.208	0.246	0.313	0.385	0.256	0.200	0.183	-0.167	0.675

Note: RSKT = Traveller's risk tolerance, SFTYP = Subjective safety perception, INFSK = Information-seeking and planning behaviors of travellers, EXPR = Travel safety preferences based on experience, PHRSK = Lack of physical risk control, CLRSK = Lack of cross-cultural risk control, GESEC = Security of general infrastructure, LGSEC = Legal security, PRSEN = Price sensitivity, MOOD = Mood-driven action, MEDIA = Negative destination's image in the media.



$\chi^2/df = 2.149$; CFI = 0.918; TLI = 0.906; RMSEA (90% CI) = 0.048 (0.045–0.052)

Figure 2. Structural model corresponding to the conceptual model, n = 496 (source: authors’ research)

travel-related risk-taking propensity. The effect of safety-conscious action based on information-seeking acquisition and experience acquisition cannot be confirmed by the results of the structural model.

The results obtained for the structural model hypotheses show that two of the five hypotheses were fully and one partially proven (Table 3). The hypothesis H1 on safety awareness in tourism, according to which safety-conscious action reduces risk-taking propensity, was rejected. Travelers’ subjective safety perception has no significant effect on their risk tolerance ($\beta = -0.076$, $p = 0.148$). Safety awareness based on information acquisition has no significant effect on risk tolerance decisions related to travel arrangements ($\beta = 0.063$, $p = 0.230$). Neither the effect of travel safety preferences based on experience could be demonstrated ($\beta = -0.045$, $p = 0.333$).

Table 3. Evaluation of hypotheses based on SEM results, n = 496 (source: authors’ research)

Hypothesis	Standardized regression coefficient (beta)	S.E.	p-value	Result	Conclusion
H1a. Subjective safety perception → Traveller's risk tolerance	-0.076	0.066	0.148	Subjective safety perception does not significantly affect the traveller's risk tolerance.	H1 is not supported

Continued Table 3

Hypothesis	Standardized regression coefficient (beta)	S.E.	p-value	Result	Conclusion
H1b. Information-seeking and planning behaviours of travellers → Traveller's risk tolerance	0.063	0.069	0.230	Travellers' information-seeking and planning behavior has no significant impact on their risk tolerance.	
H1c. Travel safety preferences based on experience → Traveller's risk tolerance	-0.045	0.027	0.333	The effect of experience-based security awareness does not significantly affect the traveller's risk tolerance.	
H2a. Lack of physical risk control → Traveller's risk tolerance	0.125	0.047	0.007	The difficulty of controlling direct (physical) risk positively affects the traveller's risk tolerance. The effect is small.	H2 is not supported
H2b. Lack of cross-cultural risk control → Traveller's risk tolerance	-0.010	0.043	0.969	A stronger perception of Lack of cross-cultural risk control related to travel (e.g. language difficulties) does not significantly affect the traveller's risk tolerance.	
H3a. Perceived importance of security → Traveller's risk tolerance	-0.228	0.071	<0.001	The perception of the importance of security has a weak negative impact on the traveller's risk tolerance.	H3 is only partially supported
H3b. Legal security → Traveller's risk tolerance	-0.031	0.050	0.547	The perception of the importance of Legal security cannot be justified and its significant impact on the traveller's risk tolerance cannot be justified.	
H4a. Price sensitivity factor → Traveller's risk tolerance	0.128	0.032	0.005	Price sensitivity has a weak positive impact on traveller's risk tolerance.	H4 is supported

End of Table 3

Hypothesis	Standardized regression coefficient (beta)	S.E.	p-value	Result	Conclusion
H4b. Mood-driven action → Traveller's risk tolerance	0.316	0.068	<0.001	Mood-driven action has a moderately strong impact on traveller's risk tolerance.	
H5. Negative destination's image in the media → Traveller's risk tolerance	-0.236	0.040	<0.001	Weak negative destination's image in the media impact on risk willingness for travel can be justified.	H5 is supported

The increased consideration of physical (direct) risks to physical health and well-being does not reduce, but rather increases, the traveller's risk tolerance ($\beta = 0.125$, $p = 0.007$). This can be explained by the fact that Hungarian travelers choose destinations with low or medium physical risks (supplementary information). More serious consideration of lack of cross-cultural risk control from potential language difficulties and the lack of formal diplomatic representation does not significantly reduce the risk appetite for travel planning ($\beta = -0.010$, $p = 0.969$). On this basis, hypothesis H2 is rejected.

The perceived importance of security is justified as a factor reducing risk-taking willingness for overseas trips ($\beta = -0.228$, <0.001). However, the higher importance attached to legal security does not significantly reduce risk tolerance among Hungarian travellers ($\beta = -0.031$, $p = 0.547$). Hypothesis H3 is only partially accepted.

Hypothesis H4 is fully supported: price sensitivity factor ($\beta = 0.128$, $p = 0.005$) and mood-driven action ($\beta = 0.316$, $p < 0.001$) have a demonstrable positive effect on risk-taking in travel decisions. Negative messages in the media can be shown to reduce the risk-taking propensity in travel decisions ($\beta = -0.236$, $p < 0.001$), thus hypothesis H5 is confirmed.

6. Discussion

It has been observed that physical risk control affects travellers' risk tolerance. This result is generally consistent with empirical studies that examine the effect of lack of physical risk control on tourist arrivals (see e.g., Pizam & Fleischer, 2002; Polas et al., 2022). However, it is also important to note that the intention to change travel plans is only slightly associated with physical risk control. This may be explained by the fact that isolated, poorly controlled risk episodes have little long-term impact on visitation but have a greater impact in the short run. In the long run, stable regions can be more attractive to both service providers and tourists (see e.g., Kozak et al., 2007). Due to this circumstance, the second hypothesis, which also includes this assumption, is considered unproven.

Also, it should be noted that the assumption that a general infrastructure's security affects travellers' risk tolerance has been proven correct. Indeed, risk is not just one thing, but many things that make people feel unsure, worried, anxious, or scared. Some people prefer not to undertake activities that may result in unexpected outcomes. They might avoid traveling to places where tourism facilities are not well developed, such as transportation or accommodation. It's harder for them to predict what's going to happen on vacation in such places (Karl, 2016) and this aspect of the situation in the context of the study has turned out to be significant for Hungarian tourists. At the same time, this effect, which is part of the third hypothesis, cannot be called significant and predominant. Consequently, the hypothesis as a whole was rejected.

According to the fourth hypothesis, the price sensitivity factor and the mood-driven factor are the sums of two non-risk factors in the presented research model. The results obtained support the conclusion that it is fully proven.

This is quite consistent with previous proposals in this regard. Sönmez and Graefe, for example, have conducted risk analyses and final decisions concerning destination choices (1998, p. 125) stating that "potential tourists select the destination which best matches their needs by offering the most benefits for the least cost (or risk)". The general logic of consumers behavior in this case: neglecting other factors consumer will pay more for a product based solely on its price, while ignoring other potential differences (Kah et al., 2021). In the context of considering the fourth hypothesis of the study, this can also be associated with a general tendency not to burden yourself with the analysis of any risks when making a decision about a trip. For whatever reason, or against, but as we have already mentioned, this is a reality in the deciding processes.

Related explanations have also been proposed by researchers regarding the effect of the mood factor. As a form of leisure, tourism may be characterized by pleasure, novelty, change, voluntariness, and non-utility. For some people leisure travel experiences are often defined in juxtaposition to everything routine and boring, as cathartic breaks enhanced by novelty, fun, recreation, situational disinhibition, license for thrills, and liminality/liminoidity (Berdychevsky & Gibson, 2015; Qiao et al., 2021). Also pondering reasons why some individuals have higher levels of risk-taking propensity than others, Zuckerman construed his "sensation seeking" as "a trait defined by the seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experience" (2007, p. 49).

Last but not least, the factor of a negative image of the destination in the media was quite predictable. Thus, the fifth hypothesis was fully proved. Evidence suggests that destination image factors are more influential than real risk factors in determining travel intentions. In addition to the authors (see e.g., Lepp & Gibson, 2008; Amara et al., 2012; Keim & Somerville, 2017; Veréb et al., 2020; Pandey & Joshi, 2021).

7. Conclusions

This study contributes *theoretically* to examining the empirical significance of existing studies and provides new insights into understanding destination choice from a risk acceptance

perspective. According to the study, physical security, price sensitivity, mood-driven factor, and destination's image in the media can be considered as substitutes for determining travellers' risk tolerance. Psychological and behavioral aspects, lack of cross-cultural risk control, and legal security did not significantly influence the key study dimension.

Although the study yielded significant outcomes, it has *limitations*. Firstly, the results do not reflect possible changes in perceptions of safety and risk over time. Depending on when the data were collected, there is a possibility that the results might vary. As well, respondents may change their minds due to a variety of factors while they are actually making risky decisions. For a more comprehensive understanding of the impact of risk tolerance on destination choice, additional factors need to be tested as potential moderators. Although the above limitations reduce the generalizability of the findings, they do not reduce the value of demonstrating the approach that can be taken to analyze travel risk perception and tolerance for it.

A few considerations about the *future development* of this topic are also worthy of mention. Since this study explored the perceived risk of tourists from a general perspective, its conclusions may be limited for comparison with other studies of similar nature. A future study may examine alternative methods that could include more choice alternatives and provide a more accurate representation of research aspects. A potential avenue for future research would therefore be to repeat this study by incorporating a number of factors: familiarity; typology of visitors based on their motivations; distribution according to demographic characteristics of visitors, such as party composition and income; and personality types. Analyzing such independent variables in relation to risk perceptions may facilitate understanding the role they play in variances.

Considering received results *in practical terms* could be very useful for public managers involved in the planning and promotion of tourism, as well as for private companies operating in this sector. This research can be applied to market segmentation, marketing strategies, and a better understanding of who in this world of increasing turmoil is likely to follow in which direction.

Considering that mood-driven behavior is quite obvious attributes for "sensation seekers", the achievement target groups can be identified as thrill and adventure seekers, experience seekers, boredom susceptibility, and disinhibitive individuals. It is therefore logical for marketers to tailor their advertising messages to the cultural preferences of Hungarian tourists. To appeal to mood-driven factors, a number of strategies could be developed.

Also of great importance is the practicality of the find in terms of price sensitivity. In this vein, we have to agree with the statement that tourism, like other economic activities, flourishes most effectively when it fits into the context of general economic policies and programs. For example, in 2011, the Japanese government announced a campaign of free flight tickets worth 1 billion Yen to revive tourism after the Fukushima incident, which resulted in an abrupt drop in leisure tourists. Based on the findings of this study, this kind of practice is strongly substantiated.

Media sensationalism can exacerbate risk misperceptions, creating unreasonable concerns among potential travellers, resulting in significant anxiety over the long term. Regarding this matter, it can be suggested that marketers should provide tourists with more risk-reduction opportunities (e.g., more information about a destination) to reduce travellers' stress levels.

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