

## HUNGARIAN TRAVELLERS' RISK PERCEPTIONS AND THEIR IMPACT ON TRAVEL INTENTIONS IN A MID-PANDEMIC SETTING

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### Abstract

From a general perspective, risk is inherently part of all tourism experience, however, some tourists are less concerned about certain risk factors, while others tend to be more risk-averse which has a negative impact on their intention to travel. This study examines how Hungarian travellers with different socio-demographic characteristics differ in terms of the perception of risk associated with international tourism. The risk factors included in this study are: terrorism, political instability, health risk, natural disasters, and crime. A random sample of 210 Hungarian travellers was tested. A series of paired samples t-test analyses and multiple analysis of variance revealed significant differences in the perceived influence of travel risks on international tourism among respondents with different socio-demographic profiles. Examining how Hungarian travellers differ in terms of travel risk perception contributes to a better understanding of their travel intentions and destination choice.

*Key words: perceived risk, risk factors in tourism, travel intention, socio-demographic factors, Hungary*

## A MAGYAR UTAZÓK ÁLTAL ÉSZLELT KOCKÁZATOK ÉS AZOK HATÁSA AZ UTAZÁSI SZÁNDÉKRA EGY VILÁGJÁRVÁNY IDEJÉN

### **Absztrakt**

Alapvetően minden turisztikai élményhez társul valamilyen szintű kockázat, egyes turisták azonban kevésbé aggódnak bizonyos kockázati tényezők miatt, míg mások sokkal kockázatkerülőbbek, ami negatívan befolyásolja utazási szándékukat. Jelen kutatás azt vizsgálja, hogy bizonyos szocio-demográfiai tényezők hogyan befolyásolják a magyar utazók külföldi utazás során észlelt kockázatát. A kutatás során vizsgált kockázati tényezők a következők: terrorizmus, politikai instabilitás, egészségügyi kockázatok, természeti katasztrófák, valamint bűncselekmények. A kutatás 210 fő magyar utazó bevonásával zajlott. A statisztikai elemzések azt bizonyítják, hogy az utazók szocio-demográfiai különbségei jelentős mértékben hatással vannak az általuk észlelt utazási kockázatokra. A kutatás eredményei hozzájárulhatnak ahhoz, hogy átfogóbb képet kapjunk a magyar utazók utazási szándékát és úticéljuk kiválasztását befolyásoló tényezőkről.

*Kulcsszavak: észlelt kockázat, kockázati tényezők a turizmusban, utazási szándék, szocio-demográfiai tényezők, Magyarország*

## 1. Introduction

Understanding how travellers perceive tourism-related risk may contribute to a better comprehension of travel behaviour and destination choice in terms of risk and safety (KARL – SCHMUDE 2017, BAYRAMOV – AGÁRDI 2018, RITTICHAINUWAT et al. 2018). The present paper aims first, to identify the importance of perceived risk factors associated with international tourism for Hungarian travellers. Second, to determine if the degree of risk associated with each factor varies according to age, gender, education, family lifecycle stage or previous travel experience.

The first chapter of this paper gives the theoretical foundations of the concepts of risk and risk perception, followed by a chapter investigating risk perception from the tourism industry's perspective. The second main chapter of this paper encompasses the empirical research with introducing the research methodology and discussing the results, whereas the major findings of this study are concluded in the last section of the paper, while some of the limitations of the research are also presented.

## 2. Theoretical Background

### 2.1. *The concept of risk and risk perception*

“Everyone is seeking to manage risk, and they are all guessing because if they knew for certain, they would not be dealing with risk (ADAMS 1995 in SJÖBERG et al. 2004:7).” This statement alludes that an adverse outcome may or may not occur in any particular situation, whereas causative factors alter the probabilities of different outcomes. There is no single, agreed definition of risk, as it has been defined in several ways, and has a different meaning in different disciplines (financial risk, political risk, security risk, technological risk), but it is often considered as the likelihood that an individual will experience the effect of danger (SJÖBERG et al. 2004). Wherever it is discussed, it seems to be a consensus about the essence of risk as consisting of the probability of an adverse event and the severity of its consequences (WOLFF et al. 2019). People are expected to differ in whether they focus on probability or consequence (SJÖBERG et al. 2004). In several definitions, risk equals the probability of an undesirable event (CAMPBELL 2006) or means the likelihood of a specific effect originating from a certain hazard occurring within a specified period or in specified circumstances (KIRCHSTEIGER 2002), whereas others define risk as the possibility of an unfortunate occurrence and loss (REISINGER – MAVONDO 2005) or possibility of an unfavourable deviation from expectations (ATHEARN 1971).

Although there is no universally accepted definition, all of the existing risk concepts have one element in common: a distinction between reality and probability. Two major conceptions have been proposed in the field of risk research: real (objective) and perceived (subjective) risk (RITCHIE – JIANG 2019, LEE et al. 2022). Objective risk is calculated from statistics and probability distributions, whereas risk perception is the subjective evaluation of the probability along with people's concern regarding the consequences of a negative outcome (SJÖBERG et al. 2004, RITCHIE et al. 2017). The majority of past studies examined perceived risk rather than real risk since it is hardly possible to identify the actual scope and scale of risks (YANG – NAIR 2014).

### 2.2. *Risk perception in the tourism industry*

Since tourism is impacted by several external factors, the tourism industry is significantly vulnerable to large-scale risks (RITCHIE – JIANG 2019). Travel risk refers to the possibility of experiencing certain forms of threat while travelling, whereas perceived travel risk is often defined as travellers' perceptions of uncertain outcomes of the travel decision or the negative

consequences of purchasing the tourism product (PARK – REISINGER 2010, SOHN et al. 2016, YOO et al. 2022). In the field of travel risk perception, risk associated with international travel is often related to terrorism, war and political instability, health concerns, natural disasters, and acts of crime. WALKER and PAGE (2003) conclude that these factors vary in intensity and in their level of severity. For instance, terrorist activities happen relatively rarely, yet their severity is particularly high. On the contrary, petty crime is frequent, yet its severity is low. Moreover, recovery is also likely to differ according to the nature and impact of the incident. For example, the recovery period after a terrorist attack can be relatively short, whereas a natural disaster that can cause significant damage to infrastructure may take years for destinations to recover (NOVELLI et al. 2018, RITCHIE – JIANG 2019).

### **2.3. Risk, Safety and Security**

The concepts of safety, security, and risk are overlapping and confusing, therefore clarifying these definitions might be of considerable importance before proceeding with further discussion. It is generally accepted that safety is a basic human need, and as such, it affects human behaviour in general and consumer behaviour in particular (ISAAC – VELDEN 2018). From the tourism point of view, safety on vacation is an expected requirement for any visitor in any destination (BAKER 2014). According to SÖNMEZ and GRAEFE (1998), the safety concerns of tourists and risk are parallel concepts, whereas other studies (MASER – WEIERMAIR 1998, REISINGER - MAVONDO 2005) consider security and safety as the subsets of risk. Using the definition of security from the Servqual model, NARDI and WILKS (2007) defined security as the lack of danger, risk, or doubt. This definition blurs the weak boundaries of safety, security, and risk, as pointed out by YANG and NAIR (2014), concluding that security is the opposite of risk, whereas the concept of safety does not fit into this definition. HALL et al. (2004) propose that tourism security is generally attached to issues of national security and political stability and “resonates with deep seated longings to be safe” (HALL et al. 2004:12). They concluded crime, national security, terrorism, environmental, health, and social issues as security threats concerning the tourism industry. Similarly, PIZAM and MANSFELD (2006) suggest four types of security incidents affecting the tourism industry: crime, civil-political instability, terrorism, and war. According to MICHALKÓ (2020), tourism security is the absence of threats to the effective functioning and development of the tourism market, the reduction or elimination of risks arising from travel and temporary stays, which threaten the traveller and the destination alike. Safety, however, refers to non-human induced incidents, including natural disasters, accidents, and health issues (PIZAM – MANSFELD 2006). HALL et al. (2004) further assert that, as a consequence of globalization and therefore enhanced tourist mobility, tourism-related issues can be elevated from personal safety risk to global security risk, referring to the outbreak of pandemics. The literature, therefore, generally advocates that safety and security are two distinctive, but interrelated concepts (YANG – NAIR 2014).

### **3. Research Methodology**

From a general perspective, risk is inherently part of all tourism experience, however, some travellers are less concerned about certain risk factors, while others tend to be more risk-averse. Understanding how travellers perceive tourism-related risk might contribute to a better comprehension of travel behaviour. The aim of this research was twofold: First, to identify the importance of perceived risk factors associated with international tourism for Hungarian travellers. Second, to determine if the degree of risk associated with each factor varies according to age, gender, education, family lifecycle stage, or previous travel experience.

The following research questions were guiding this study:

1. *What factors of perceived risk are associated with international tourism for Hungarian travellers?*
2. *Do socio-demographic characteristics (age, gender, education, family lifecycle stage) influence Hungarian travellers' perceptions of risk associated with international tourism?*
3. *Does previous travel experience influence Hungarian travellers' perceptions of risk associated with international tourism?*

Substantiated on risk perception literature, five predetermined risk factors were considered in this research that can directly impact travellers' health and wellbeing: terrorism, political instability, health concerns, natural disasters, and crime. Terrorism risk refers to the possibility of being involved in a terrorist act, such as a bomb explosion, or hijacking. The risk of political instability means the possibility of travellers being involved in a political turmoil of the visited destination. Health risk refers to hygiene standards, diseases, and pandemics that might cause harm to travellers. Natural disaster risk implies that travellers may encounter a natural disaster event, such as an earthquake, volcanic eruption, or tsunami, whereas crime risk refers to the possibility of becoming a subject of rape or murder or being robbed during a trip (PIZAM – MANSFELD 2006, KARL – SCHMUDE 2017).

### **3.1. Methodological approach and sampling**

Quantitative research was employed as a methodological approach in this study, with the use of primary data. A self-administered online questionnaire was conducted as a survey instrument that was distributed among Hungarian travellers. Since the population covered all Hungarian citizens who are inclined to travel abroad, the sample was selected by using a non-probability, purposive sample method. The questionnaire was available from the 2<sup>nd</sup> till the 31<sup>st</sup> of October 2020, with a completion time of approximately 10 minutes. A total of 21 questions were included in the survey, comprising of multiple-choice and Likert scale type questions. Out of the total 330 responses obtained, 210 were completed, and only the completed responses were used for data analysis. It should be noted, however, that the sample is not representative.

### **3.2. Method of the analysis**

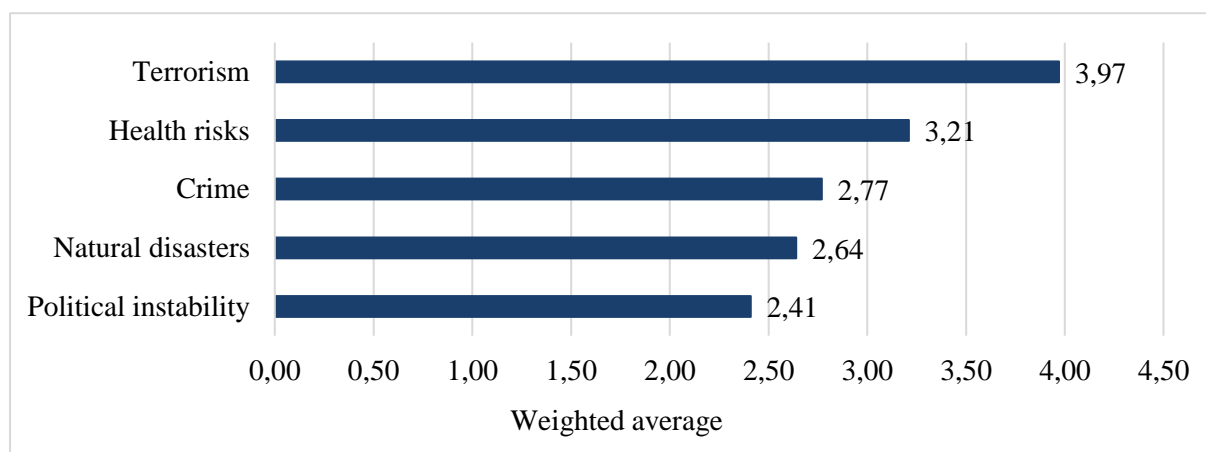
Data were prepared for the analysis with the use of data cleansing methods, while SPSS software was used to analyse data. Statistical tests used in this research included correlation analyses, multiple analysis of variance (ANOVA), a series of paired samples t-tests, and logistic regression. The level of significance was accepted below the value of 0.050, while values between 0.050 and 0.059 were considered marginally significant.

## **4. Results and Discussion**

### **4.1. Factors of perceived risk associated with international tourism**

Respondents were asked to rank the predetermined risk factors based on the influence they have on their intention to travel abroad. Frequencies and the weighted average method were used to evaluate the responses of Hungarian travellers. *Figure 1* represents the ranking of the predetermined risk factors. Results show that terrorism was ranked first place, followed by health-related risks. Crime was ranked in third place, whereas natural disasters were ranked as the fourth influencing risk factor while political instability was considered the least important risk factor of international tourism.

Figure 1: The importance of risk factors



Source: Own editing, 2022

Furthermore, 47.62 per cent of the respondents agreed that terrorism is the most influencing risk factor associated with international tourism, whereas health-related risks were considered as the most significant risk factor by 22.86 per cent of the respondents. In a mid-pandemic setting, however, health concerns were expected to receive higher perceptions. It should be noted, though, that the survey was conducted in the stagnation period of the first wave of the current pandemic, which may contribute to the lower level of perceptions of travellers.

The findings of this research are consistent with some of the previous studies on travel risk perception. Some studies suggest that terrorism is the most influential risk factor in long-term travel behaviour (LANOUAR – GOAIED 2019). On the other hand, the analysis of RITTICHAINUWAT and CHAKRABORTY (2009) proposes that health risks, with an emphasis on infectious diseases, have a higher impact on travel decisions than terrorism risk. Other authors argue, inconsistent with the findings of this research, that political instability is the most influential risk factor (JIN et al. 2019). It is therefore an ongoing debate on which type of risk is perceived to be the most influential among travellers and how the differences in the perceptions of tourists could be explained (KARL et al. 2020).

#### **4.2. Socio-demographic differences in the perception of travel risk**

The literature suggests that certain socio-demographic characteristics have an impact on the perception of travel-related risks (REISINGER – MAVONDO 2005, KOZAK et al. 2007, PARK – REISINGER 2010, KARL et al. 2015, RITCHIE et al. 2017). The socio-demographic variables included in the analysis were age, gender, the highest level of education completed, and family lifecycle stage, as substantiated by the literature.

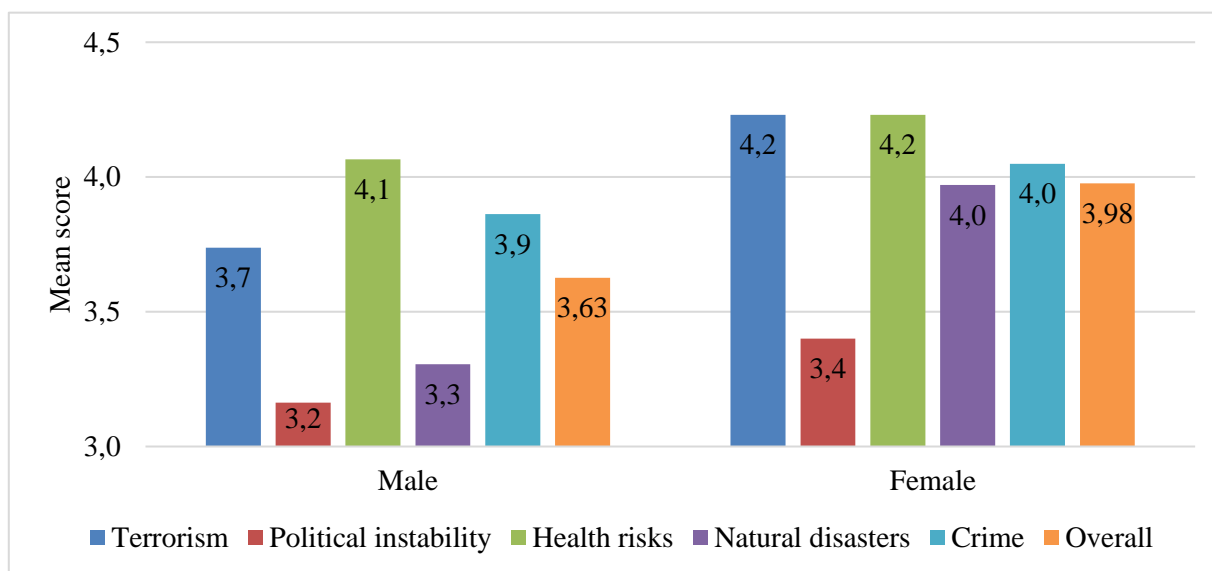
##### **4.2.1. Gender as a determinant of perceived risk**

The literature is inconsistent in regard to gender differences in the perception of travel-related risk. SÖNMEZ and GRAEFE (1998) found no gender differences in the perception of travel risks, whereas other studies proposed that gender does influence the perception of tourism-related risks (CARR 2001, LEPP – GIBSON 2003, KOZAK et al. 2007, PARK – REISINGER 2010). The results of the analysis of variance suggest that the perceptions of terrorism risk ( $p=0.013$ ) and natural disaster risk ( $p=0.003$ ) vary according to the gender of travellers. Gender, however, does not influence the perceptions of neither political instability ( $p=0.220$ ), health-related risks ( $p=0.389$ ) nor the risk of the acts of crime ( $p=0.268$ ).

The differences in travel risk perception in terms of gender are represented in *Figure 2*. The major distinction among the genders is between the perceptions of the risk of natural disasters

and terrorism, with females perceiving higher levels of risks than male travellers. This finding is consistent with the literature since female travellers are more concerned about natural disasters and the risk of terrorism (KOZAK et al. 2007). Similarly, PARK and REISINGER (2010) found that women tend to perceive higher risk of encountering natural disasters than men. Although these differences are not significant, it can be observed that women are more concerned about all the five risk factors than men. The findings of this research are therefore consistent with previous studies with women perceiving higher levels of risks than men (CARR 2001, LEPP – GIBSON 2003, PARK - REISINGER 2010, CSAPÓ – TÖRŐCSIK 2020).

Figure 2: Gender differences in travel risk perception



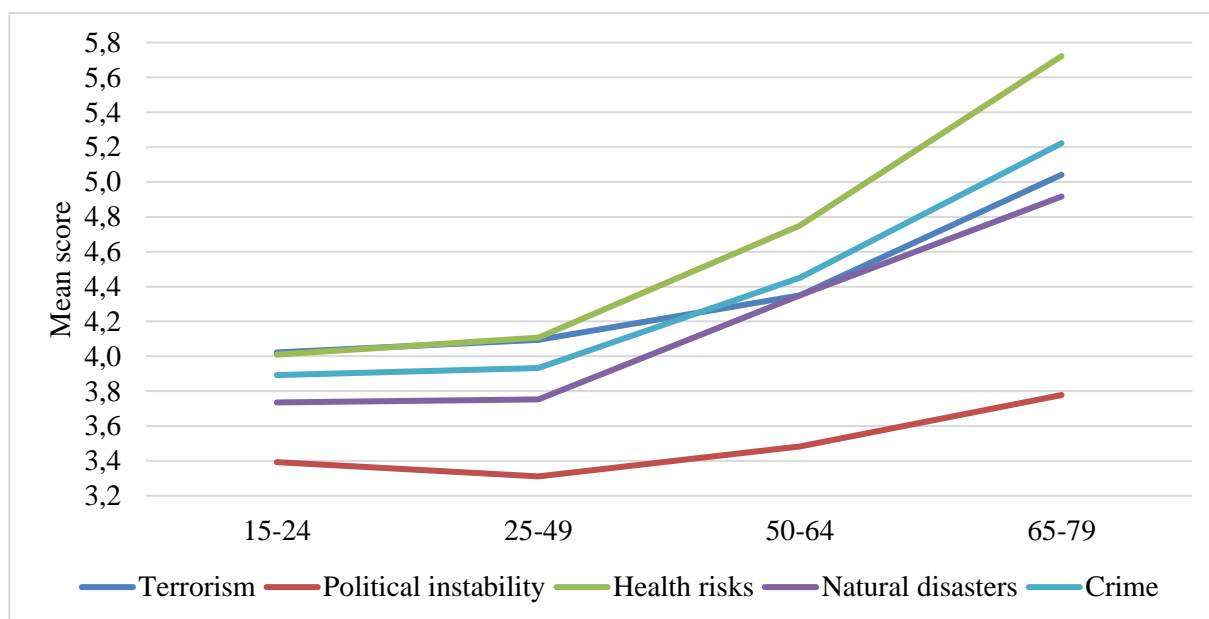
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#### 4.2.2. The age of travellers as a determinant of risk perception

It is a consistent pattern in the literature that age is an important socio-demographic factor in the analysis of people's risk perception. The findings of this research suggest that age affects travellers' perceptions of health risks ( $p=0.000$ ), natural disasters ( $p=0.040$ ), and the acts of crime ( $p=0.002$ ), whereas it has no statistically significant impact on the perceptions of risk concerning terrorism ( $p=0.170$ ) and political instability ( $p=0.706$ ).

The differences in the perception of travel risk among the age groups are illustrated in Figure 3. Results show that older tourists, belonging to the 65-79 age group, are significantly more concerned about health-related risks than their younger counterparts, with the youngest travellers being the least concerned about such risk. Travellers belonging to the 50-64 age group also have higher perceptions of health-related risks than travellers between the ages of 15 and 24. This finding is substantiated by the literature on age and risk perception hence it is a consistent pattern that health-related risks are more important for older travellers (WILLIAMS – BALÁZ 2013).

Figure 3: Perceived risk factors by age group



Source: Own editing, 2022

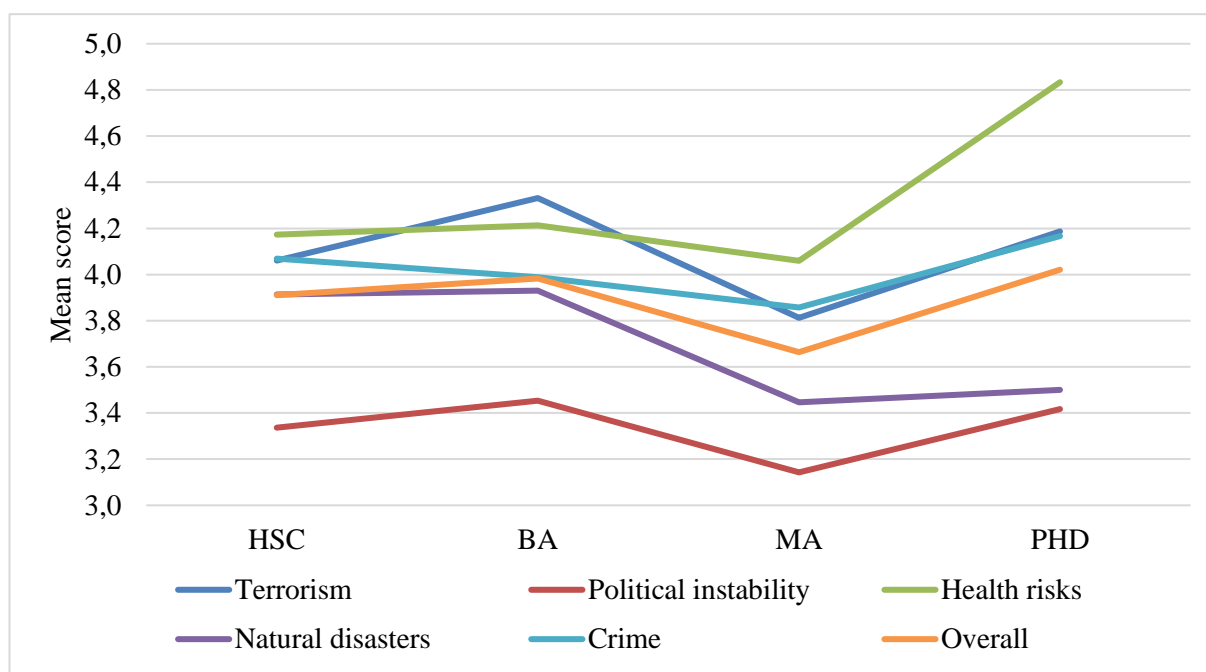
Likewise, travellers belonging to the 65-79 age group perceived significantly higher levels of natural disaster risk and the risk of crime than travellers between the ages of 15-24. A significant difference can also be found between the perception of 50-64-year-old travellers and the 25-49 age group, with the former perceiving higher levels of risk concerning natural disasters. With regards to risk associated with the acts of crime, travellers between the age of 50-64 have significantly higher perceptions than the youngest respondents.

It can be concluded that travellers belonging to the 15-24 age group have similar perceptions than those of the 25-49 age group. Above the age of 50, however, the perception of risk and age are directly proportional with older travellers having higher perceptions of risk associated with international tourism. Although SÖNMEZ and GRAEFE (1998) did not find any relationship between travellers' age and their perception of risk, the results of this research are consistent with the risk perception literature hence younger people tolerate more risk than older ones (GIBSON – YIANNAKIS 2002, REISINGER – MAVONDO 2005, PARK - REISINGER 2010, WILLIAMS – BALÁZ 2013, CSAPÓ – TÖRŐCSIK 2020, ZILKER et al. 2020). It is also important to note, as the current research was conducted in a mid-pandemic setting, that due to the COVID-19 pandemic, younger segments are more optimistic about travelling abroad (SZABÓ 2022) which could be explained by their lower levels of perceived risks concerning international travel.

#### 4.2.3. The level of education as a determinant of perceived risk

Results indicate that education has no statistically significant impact on the perceptions of any of the predetermined risk factors (terrorism  $p=0.423$ ; political instability  $p=0.788$ ; health risk  $p=0.238$ ; natural disasters  $p=0.710$ ; crime  $p=0.777$ ). Respondents were grouped into four categories based on their highest level of education they completed: travellers with completed high school (HSC), Bachelor's degree (BA), Master's degree (MA), and Doctoral degree (PhD). Figure 4 represents the perceived risk of respondents by the highest level of education completed.

Figure 4: Perceived risk by highest level of education completed



Source: Own editing, 2022

The literature suggests that better-educated travellers perceive lower levels of travel risk than less-educated travellers (ROWE – WRIGHT 2001; HALLAHAN et al. 2004, PARK – REISINGER 2010, CSAPÓ – TÖRŐCSIK 2020) which appears to contradict the findings of this research hence results indicate that travellers with the highest level of education have the highest overall perception. However, it should be noted that only the perception of health risk is statistically significant, in fact, only a marginally significant relationship exists between the perception of highly-educated travellers and lower-educated travellers concerning health-related risks, whereas travellers with a master's degree perceive the lowest level of risk associated with international tourism. SUNDBLAD et al. (2007) noted that the level of education can increase an individual's sense of control which implies lower levels of perceived risk. On the other hand, HAKES and VISCUSI (2004) argued that more educated people have a lower level of risk bias which could indicate either higher or lower risk perception. Similarly, LAVER et al. (2001) found that better-educated travellers are likely to be more informed about travel risks and hold less misconceptions about the real risk than less-educated tourist. However, some authors have failed to find any significant relationship between travel risk perception and the level of education (SÖNMEZ – GRAEFE 1998, SJÖBERG 2004, WILLIAMS – BALÁZ 2013, KARL et al. 2020).

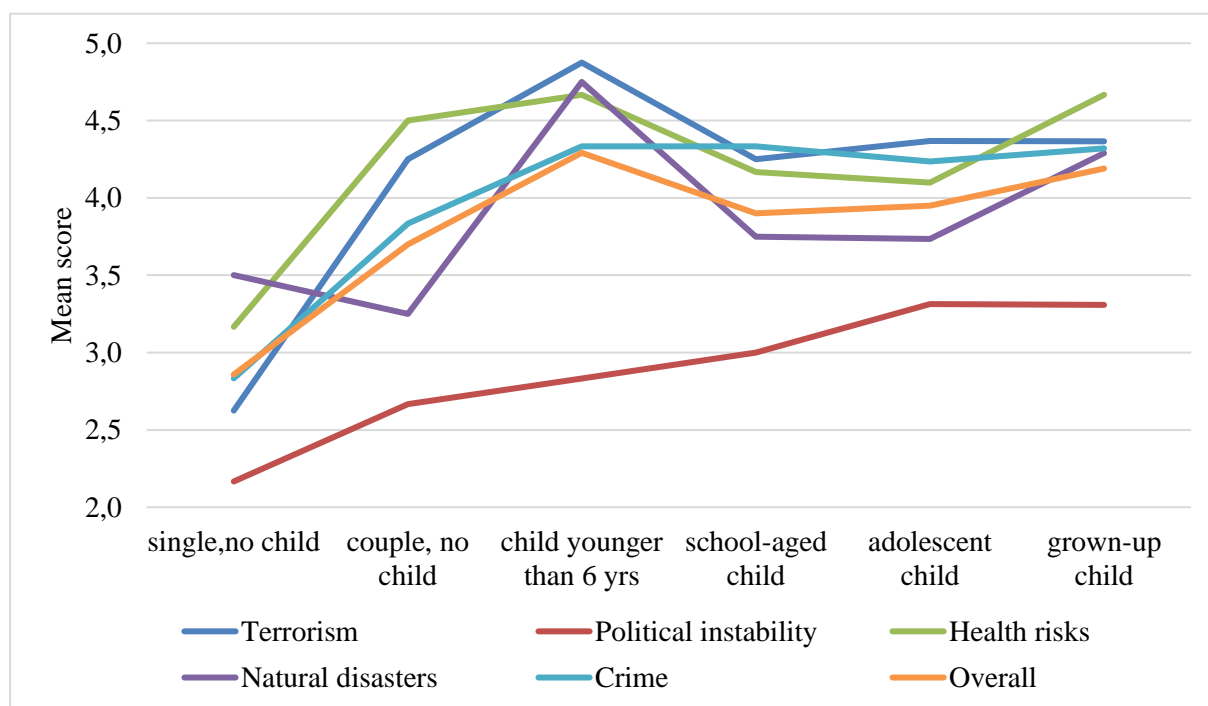
#### 4.2.4. Family lifecycle stage as a determinant of perceived risk

While existing risk perception studies have incorporated a variety of socio-demographic variables such as age, cultural differences, gender, and education, a limited number of studies have included family lifecycle stage as a determinant of perceived travel risk, yet they are rather focusing on the subject of children as travel companions. It is of great importance, however, for tourism professionals to understand how travellers perceive tourism risk in different stages of the family lifecycle and to observe the underlying differences or similarities.

Results of the current study show that the perception of travel risk significantly varies according to family lifecycle stage in the case of each risk factor (terrorism  $p=0.000$ ; political instability  $p=0.049$ ; health risk  $p=0.001$ ; natural disasters  $p=0.003$ ; crime  $p=0.003$ ).

The comparison of perceived risk factors of travellers in different stages of the family lifecycle is illustrated in *Figure 5*. Concerning overall differences in the perception of travel risks between travellers in different stages of the family lifecycle, single, child-less travellers had the lowest perceptions, whereas parents with small children perceived the highest levels of risk. Moreover, travellers having an adolescent or grown-up child perceived higher risk than those with school-aged children and child-less travellers. One possible explanation for this finding could be that travellers with grown-up children are presumably relatively older and it has been found formerly that the perception of risk increases after a certain age.

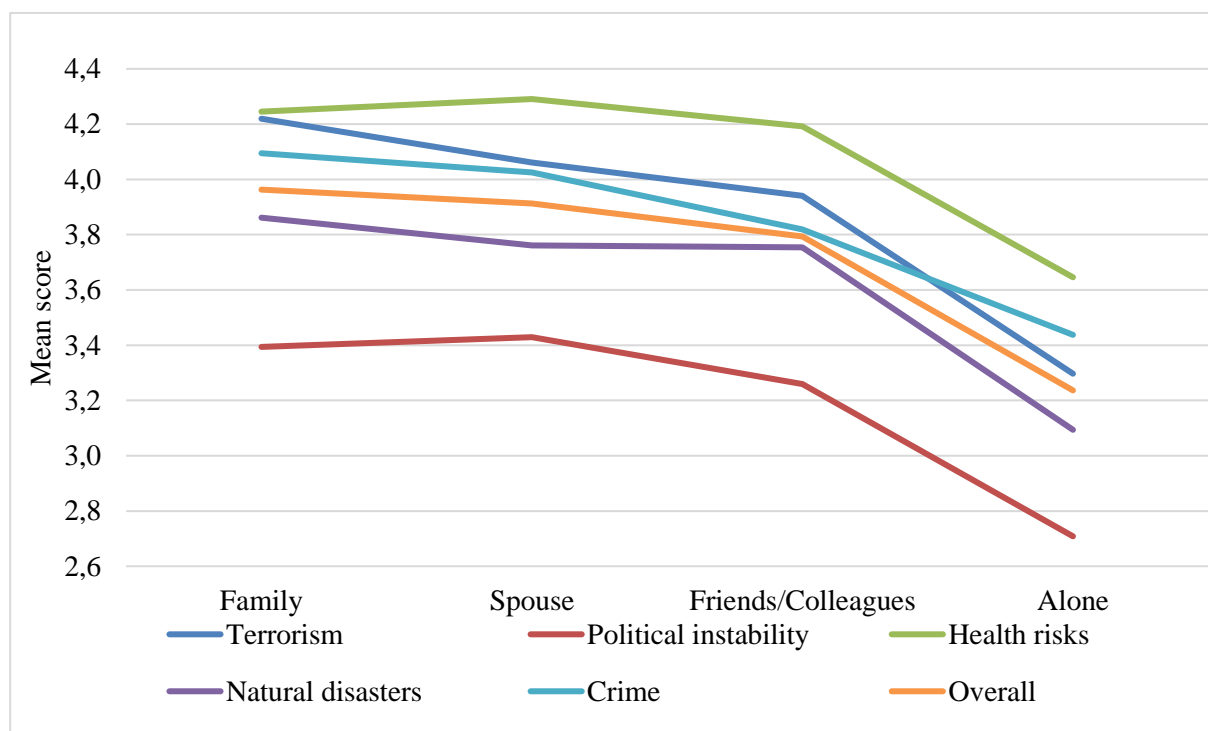
Figure 5: The perception of risk by different stages in the family lifecycle



Source: Own editing, 2022

Previous studies suggest that travel behaviour and risk perception changes along with lifespans, with an emphasis on travel companionship, indicating that travelling with young children could increase risk perception (SÖNMEZ – GRAEFE 1998; KARL et al. 2020, RITCHIE et al. 2017). On the same line, WILLIAMS and BALÁZ (2013) concluded that individual travellers are more likely to take risks. On the contrary, WEBER and HSEE (1998) argue that travellers who travel alone perceive higher risk than those travelling with family and friends hence being in a group can increase the safety feelings of travellers against potential risks. The differences in travel risk perception based on travel companionship are illustrated in *Figure 6*. Results of the current research suggest that, although no statistically significant relationship exists, those travelling alone had lower levels of travel risk perceptions than respondents who have company during their trip. Travellers who have family members accompanying them perceived the highest travel risks, followed by those travelling with their spouse and friends or colleagues.

Figure 6: Perceived risk and travel companionship



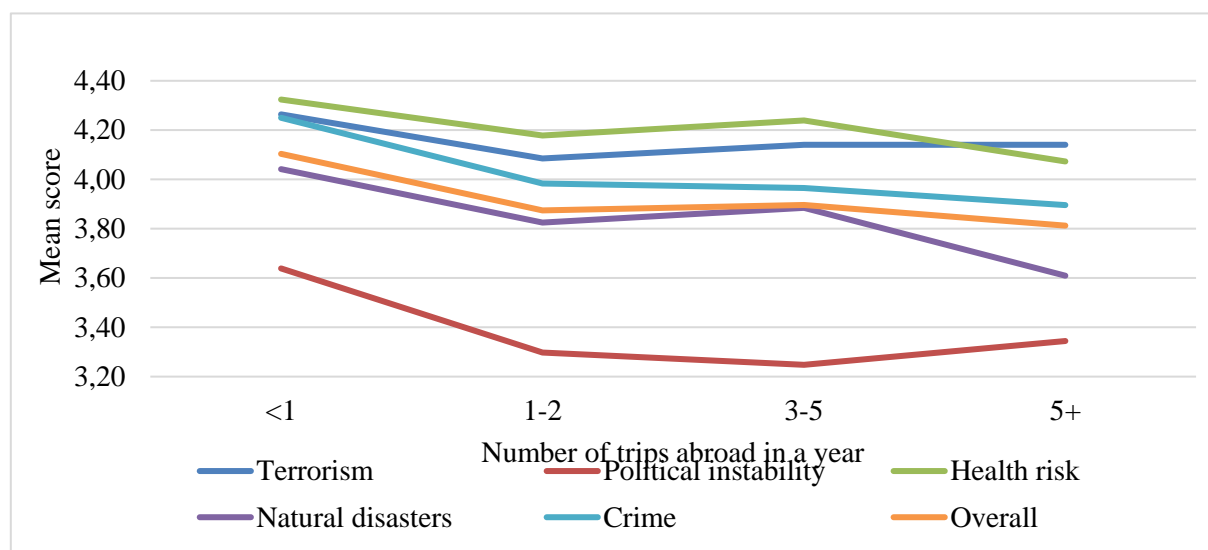
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#### 4.3. Previous travel experience and perceived risk

Existing literature suggests that previous travel experience reduces the perception of certain risks concerning international tourism (LEPP – GIBSON 2003, WILLIAMS – BALÁZ 2013, SHARIFPOUR et al. 2014, KARL et al. 2020). In contrast with the findings of previous studies, the results of the current study indicate that past travel experience had no statistically significant impact on any of the predetermined risk factors concerning international tourism (terrorism  $p=0.884$ ; political instability  $p=0.395$ ; health risk  $p=0.811$ ; natural disasters  $p=0.582$ ; crime  $p=0.425$ ).

The interrelationships between travellers with different travel regularity patterns are represented in *Figure 7*. There are no statistically significant differences between travellers with different travel experience in terms of the perception of risk concerning terrorism, natural disasters, crime, nor health-related risks. Respondents travelling abroad less than once a year, however, perceived significantly higher risk concerning political instability than those travelling more than once a year. Although previous travel experience was not a significant characteristic in relation to the risk factors associated with international tourism, travellers who have the least travel experience were found to have the highest perceptions of travel risk, whereas, in general, tourists with the most travel experience were less concerned about the risk factors than their counterparts.

Figure 7: Previous travel experience and perceived risk



Source: Own editing, 2022

## 5. Conclusions

The aim of this research was twofold: First, to identify the importance of perceived risk factors associated with international tourism for Hungarian travellers. Second, to determine if the degree of risk associated with each factor varies according to age, gender, education, family lifecycle stage, or previous travel experience.

The results of the analysis suggest that terrorism is a major concern for Hungarian travellers, strictly followed by health-related risks, then the risk of crime and natural disasters, whereas political instability was considered the least important factor.

It is a consistent pattern in the literature that certain socio-demographic factors may influence the perceptions of travel risks. In terms of gender, the findings of this research indicate that women perceive higher levels of risk than men. The current research also revealed that, above the age of 50, the perception of risk and age are directly proportional, with older travellers having higher perceptions of risk associated with international tourism. Moreover, results also suggest that travellers with the highest level of education have the highest overall perception of travel risk. While existing risk perception studies have incorporated a variety of socio-demographic variables, a limited number of research has included family lifecycle stage as a determinant of perceived travel risk. It is of great importance, however, for tourism professionals to understand how travellers perceive tourism risk in different stages of the family lifecycle and to observe the underlying differences or similarities. Results suggest that single, child-less travellers had the lowest perceptions, whereas parents with small children perceived the highest levels of travel risk. In terms of travel companionship, the findings indicate that those travelling alone had lower levels of travel risk perceptions than respondents who have company during their trip.

The research has also found that past travel experience reduces the perception of certain risks concerning international tourism. It should be noted, however, that this research only analysed travel regularity (i.e. the number of trips in a year) which alone might not be an adequate pattern to assess previous travel experience in detail. Consequently, a more comprehensive approach is recommended for future research to operationalise past travel experience, including travel frequency (i.e. the number of trips in previous years), past experience of risk, and repeat visit tendency.

A further limitation of the current research is that only a quantitative approach was employed, while augmenting the research with a qualitative approach could provide a deeper insight into interrelations in the perception of travel risk according to psychological factors, socio-demographic characteristics, and previous travel experience. Investigating respondents' personal travel experiences could also reveal interrelations, therefore adding open-questions to the questionnaire, as well as conducting interviews could ensure a more in-depth analysis.

Since destination choice could be influenced by individual perceptions of travel risk (PIZAM – MANSFELD 2006), socio-demographic characteristics (SHARIFPOUR et al. 2014), and destination attributes (KARL et al. 2020), examining how Hungarian travellers differ in terms of travel risk perception may contribute to a better understanding of their travel intentions. However, it should be of interest to further analyse their destination choices in order to comprehend which destinations certain tourists prefer or which destinations they would avoid in the case of an unfavourable event. In order to analyse destination preferences, the segmentation of Hungarian travellers based on their perceived travel risk could be of great relevance for future research.

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