ISSN (PRINT): 1994 - 7658 ISSN (ONLINE): 1314 - 0817

VARNA UNIVERSITY OF MANAGEMENT

European Journal of Tourism Research

http://ejtr.vumk.eu

Domestic and European leisure travel intentions: assessing the role of push motivations, destination safety, travel risk, safety concerns and social risk

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Abstract

Risk is fundamental in the choice, evaluation, and behaviour of tourists, consequently understanding tourists' shifting preferences toward a destination is imperative in the post-COVID era. Thus, this study aims to examine the impact of push motivations on the intention to travel to a European and domestic destination, analyse the interrelated effects between components of risk perception, test the moderating effect of risk perception and investigate the influence of gender and educational level. Based on 1315 tourists and using structural equation modelling, it was possible to find that (1) the motivation to relax and acquire knowledge, and the perception of the destination as safe are predictors of domestic travel; (2) the motivation to acquire knowledge and the risk perception as similar between European and domestic trips positively influence the intention to travel to European destination; (3) travel risk and, indirectly, safety concerns and social risk are deterrent factors of travel intentions; (4) risk perception doesn't affect the reason why people travel; and (5) gender doesn't affect travel motivation, intentions or risk perception, but education level enhances the negative effect of social risk. Mostly, this study adds to the literature by detailing how different motivations and risk perceptions affect travel intentions.

Keywords: sociopsychological travel motivations, travel intention, travel risk, destination safety, social risk, safety concerns

Citation: Carvalho, A. (2022). Domestic and European leisure travel intentions: assessing the role of push motivations, destination safety, travel risk, safety concerns and social risk. *European Journal of Tourism Research* 32, 3214.

1. Introduction

Despite being susceptible to several risks and threats, tourism remains the key developing factor for many countries. In the last two decades, tropical and/or epidemic diseases have been acknowledged as the main events affecting the tourism economy and travel behaviour of tourists (Jonas, Mansfeld, Paz & Potasman, 2011). The coronavirus (COVID-19), contrarily to other epidemic outbreaks, caused a systemic global financial and economic crisis, as well as health-safety problems worldwide (Gössling, Scott & Hall, 2021).

Since the beginning, the international, regional and local lockdowns disrupted the normal circulation flows, which impacted the tourism industry and the economy in general in a way never seen before (Skare, Soriano & Porada-Rochon 2021). Moreover, the study of Fotiadis, Polyzos & Huan (2021) predicts that this impact will represent losses of 50% for the next year, their 12-month forecast for the arrival of international tourists proves this deterioration in tourism demand. According to the authors, these losses will persist until the next summer, causing a setback in tourism growth of around 15 years. In this sense, the estimated effect of the COVID-19 pandemic will be much more negative than those observed in other pandemic events (Fotiadis *et al.*, 2021; Gössling *et al.*, 2021; Skare, Soriano, and Porada-Rochon, 2021). Besides, Kim (2020) supports that pandemics like COVID-19 can be a new paradigm in tourism. It is estimated that every four to five years a new pandemic can occur. Therefore, it is crucial to comprehend the impact of risk perception in pandemic contexts and encourage domestic and international tourism activities.

Several studies have investigated risk perception among travellers and how risk is reflected in the behaviour of tourists, however, the majority of the studies focus on analysing the impact caused by risks such as political, terrorism, and crime-motivated attacks rather than analysing health risk (Jonas *et al.*, 2011). Moreover, risk perception is often described as a set of attributes related to risks that tourists can face during their journey, instead of being divided into components (He, Park & Roehl, 2013). Additionally, the impact of the COVID-19 pandemic on the tourism industry is unparalleled (Del Chiappa, Bregoli, Fotiadis, 2021; Fotiadis, Woodside, Del Chiappa, Séraphin, & Hansen, 2021; Gössling *et al.*, 2021). From the start of this pandemic, numerous descriptive researches have been carried out, but it is still necessary to understand and empirically validate how tourism and the behaviour of tourists could be in a post-COVID-19 era (Kock, Nørfelt, Josiassen, Assaf & Tsionas, 2020).

Furthermore, previous literature on health crisis has focused its analysis on the potential demotivators to travel, rather than the reasons for travelling. In this sense, Zenker & Kock (2020) recognized the importance of examining tourists' decision-making during the COVID-19 pandemic. Since potentially social isolation rules, changes in individuals' daily lives, and travel restrictions may have transformed the impact of travel motivations on intention to leisure travel (Çolakoğlu, Yurcu & Avşar, 2021). In the same way, the pandemic raises questions regarding domestic tourism and its role in the short-term and long-term recovery of the tourism industry (Assaf, Kock & Tsionas, 2021).

Therefore, given the gaps found in the literature, this study purposes to examine the influence of push travel motivations and risk perception on the intention to travel. More precisely, the study aims to: 1) test the influence of different types of push travel motivations (Relaxation/Escape, Excitement/Adventure, Knowledge, Socialization and Prestige) on the intention to travel to a European and to a domestic destination, 2) analyse the interrelated effects between components of perceived risk and potential mediating effects 3) investigate the moderating effect of risk perception, including the following components in the analysis travel risk, destination safety, safety concerns, European versus

domestic travel risk and social risk, and 4) examine how sociodemographic factors like gender and education level influence the perception of risk, push travel motivations and travel intentions.

Theoretically and managerially, this study aims to contribute to adding knowledge about tourism behaviour post-COVID period and to improve the understanding of risk perception, which can be used to redefine tourism strategies and tactics.

The study is organized as follows. First, it presents the theoretical background, the conceptual framework and research hypotheses. Second, data and research methods are explained. Finally, the last two sections present the results, conclusions, implications and limitations of this study.

2. Theoretical Background and Hypotheses

2.1. Push Travel Motivation and Intention

The reason why people travel is one of the main questions in tourism research, consequently travel motivations have been widely studied. For Prebensen, Woo, Chen & Uysal (2013), travel motivation is at the heart of travel behaviour because the motivation of tourists is vital to comprehend, clarify and theorize travel behaviours.

In this sense, travel motivation is usually defined as an inner state, a psychological need or desire, which influences the individual to choose and participate in a given touristic activity (Baloglu & McCleary, 1999; Dann, 1981). Therefore, motivation is the impulse to satisfy physiological and psychological needs (Fodness, 1994) and constitutes a psychological state that leads individuals to achieve their desired goal (Jang & Wu, 2006).

According to Albayrak & Caber (2018), motivations can be analysed from four perspectives: "need-based, values-based, benefits sought or realized, and expectancy theory" (p. 202). From a sociological perspective, the "push" and "pull" motivation theory proposed by Dann (1981) refer that push factors are intrinsic to the person. They are sociopsychological needs, such as escapism, the feeling of belonging, self-assessment or status, that lead the tourist to action. Hence, push factors establish the individual's desire to travel and drive tourists to make a travel decision. On the contrary, pull factors are external. They are cues that prompt tourists to make travel decisions (Jang & Wu, 2006) and appeal to the individual to a certain destination (Jang, Bai, Hu & Wu, 2009). In this sense, economic aspects (e.g., travel cost, annual income, inflation, exchange rate employability) and the attributes of the destination are pull factors of travel motivation.

In line with Dann's conceptualization, this study only analyses the push motivational factors. According to Baloglu & McCleary (1999), there are seventeen sociopsychological motivations that can be clustered into five categories: relaxation/escape, excitement/adventure, knowledge, social and prestige. In the same way, Pearce & Lee (2005) revealed that the most important motivational dimensions are escape, novelty, relationship and self-development. While the study of Lin & Nawijn (2020) points to a decrease in the importance of the relationship-seeking motive as one of the four dimensions of travel motivation. In the context of a crisis, most studies focus on demotivators to travel, so there is a lack of research on tourists' motivations to travel. Based on Herzberg's motivation theory, Aebli, Volgger & Taplin (2021) explore, through in-depth interviews, the tourists' motivation to travel to a domestic and an international destination during the COVID19 pandemic. The authors identified four predominant travel motives that are closely linked to the push motivation factors of Dann's conceptualization: "physical and mental wellbeing", "social connectedness", "personal growth" and "relaxation". In the same way, Çolakoğlu *et al*. (2021) reported that participants' perceptions of social isolation, anxiety and

mental well-being increase push travel motivations, i.e., the desire for adventure, escape, prestige, rest and relaxation, and social interaction is now bigger.

Travel intention transforms travel motivation into behaviour because it is a consequence of a mental process that leads to action (Jang *et al*., 2009). Thus, the intention is the mere indication of how much tourists are willing to engage in a behaviour. Consequently, motivation is a crucial factor in the process that a tourist takes in regard to the decision to travel (Prebensen *et al*., 2013). Baloglu & McCleary (1999) and Wong, Law & Zhao (2018) found that travel motivation has a positive impact on the intention to visit an international destination. However, Hamouda & Yacoub (2018) have shown that the impact of the travel motivation on the intention to visit a destination is only significant for the 'knowledge' dimension and insignificant for the other three dimensions ("relaxation", "entertainment" and "prestige"). Moreover, Li & Cai (2012) argued that only novelty and knowledge influence travel behavioural intentions. In this sense, the authors claim that further research on the antecedents of travel behavioural intention is needed.

To the best of my knowledge, no study has empirically tested whether the impact of push motivations on intentions to travel for leisure has changed, in the context of the COVID-19 pandemic. Therefore, the following hypotheses are proposed:

Hypothesis 1: a) *Relaxation/escape,* ***b)*** *knowledge acquisition,* ***c)*** *socialization,* ***d)*** *prestige and* ***e)*** *excitement/adventure motivations positively influence the tourist's intention to visit a domestic destination.*
Hypothesis 2: a) *Relaxation/escape,* ***b)*** *knowledge acquisition,* ***c)*** *socialization,* ***d)*** *prestige and* ***e)*** *excitement/adventure motivations positively influences the tourist's intention to visit a European destination.*

2.2. Risk perception in tourism
Several tourism studies evaluate the influence of risk perception in travel decision-making (Hasan, Ismail & Islam, 2017) and the majority of these studies repeatedly expose that safety and security are central concerns among tourists (Karl, 2018; Karl & Schmude, 2017; Reisinger & Mavondo, 2005). For instance, risk perception leads to a decline in travel demand, when a terrorist attack (Floyd, Gibson, Pennington-Gray & Thapa, 2004; Karl, 2018), an epidemic event (Cahyanto, Wiblishauser, Pennington-Gray & Schroeder, 2016; Jonas *et al*., 2011; Lee, Song, Bendle, Kim & Han, 2012; Li & Ito 2021) or natural disaster (Park & Reisinger, 2010) occurs. Therefore, risk perception plays a crucial role in the tourists' choice, assessment and behaviour (Hasan *et al*., 2017; Karl, 2018).

Broadly, risk can be defined as the individuals' perceptions of uncertainty and the possible undesirable consequences of their purchase decision (Sohn, Lee & Yoon, 2016; Tsaur, Tzeng & Wang, 1997). In the same way, risk perception is a subjective assessment of the risk of a threatening situation based on its characteristics and dangerousness (Moreira, 2008). According to Reichel, Fuchs & Uriely (2007), risk perception can also be defined as the likelihood of a tourist being exposed to a danger that is high enough to influence the intention to travel.

From a behavioural perspective, risk perception is personal and context-specific (Reisinger & Mavondo, 2005). Subsequently, Hasan *et al.* (2017) identified six dimensions of risk: financial risk, physical/health/personal risk, psychological risk, functional/performance risk, security risk and social/socio-psychological risk. According to these authors, financial risk "refers that the purchase of tourism product and service may not or is not worth of money in terms of value" (p. 5) and

physical/health/personal risk "refers to the possibility of accident, insecurity, changing environment and weather, natural disaster, life-threatening diseases, illness, and so on causing the damage of personal body health" (p. 5). Psychological risk occurs when the travel experience fails to satisfy the tourist's psychological travel aspirations, while functional/performance risk occurs when the quality of tourism products and services fails to meet the tourists' expectations. Security risk refers to the threat of unexpected laws imposed at tourist destinations for tourists and social/socio-psychological risk occurs when the tourists' social status is negatively affected by their choices regarding tourism products and services,

According to Matiza (2020), the COVID-19 pandemic may exacerbate the perceived health risk, but also the perceived psychological and social/socio-psychological risk. Jonas *et al*. (2011) examined the relative importance tourists assign to health risk and found that they classify health risk into three distinctive groups. The most important group are environmentally induced factors like infectious diseases, food safety, water quality and quality of health care services. In the middle are the health risks that can be partially controlled by the tourist, such as physical injuries, safety of tourism facilities and environmental conditions. At the bottom are fully controlled, for example sexually transmitted diseases and health consequences of drug use. Therefore, infectious diseases like COVID-19 are part of the group perceived as the highest threat during a trip.

In accordance with the theory of reasoned action, behavioural intention is a function of evaluative beliefs, normative beliefs and situational factors that can be foreseen by tourists when planning the trip (Moutinho, 1987). Likewise, behavioural intention is a function of perceived behavioural control (Ajzen, 2002). Hence, within the COVID-19 pandemic, due to border closures, disease control interventions and travel restrictions, the predictors of behavioural intention became uncontrollable (Li & Ito, 2021). Furthermore, when there is no personal experience with the destination, the perception of risk and safety becomes fundamental in the decision-making process (Sönmez & Graefe, 1998a). Travel intentions, as are behavioural intentions, can be understood in the same theoretical framework (Jang *et al*., 2009).

In this sense, the perceived risk of travelling, in general, or to a specific destination, influences behavioural intention (An, Lee & Noh, 2010; Artuğer, 2015, Cetinsoz & Ege, 2013). Literature reveals that tourists make travel decisions based on their risk perception instead of reality (Fuchs & Reichel, 2004; Rittichainuwat & Chakraborty, 2009; Roehl & Fesenmaier, 1992). More precisely, the tourist's perception of risk influences the intention to modify travel plans, travel to or avoid a specific destination (Reisinger & Mavondo, 2005, 2006). When tourists perceive a trip or a destination as too risky, they may feel nervous, anxious and threatened (Kock *et al*., 2020). In response, they may cancel the trip or change the travel destination in order to avoid the perceived risk (Reisinger & Mavondo, 2005, Rittichainuwat & Chakraborty, 2009; Schroeder, Pennington-Gray, Kaplanidou & Zhan, 2013).

Similar to crime-driven risks, health risks are a concern for tourists and tourism providers (Jonas *et al*., 2011). Nevertheless, the impact that health risk has on destination choice and travel behaviour is not so clear as the effect of safety risk perceptions on travel behaviour (Reisinger & Mavondo, 2005; Sönmez & Graefe, 1998b). For example, Lee *et al*. (2012) concluded that the perception of 2009 H1N1 influenza did not affect the desire or behavioural intention of tourists, but it indirectly affected international travel intentions via personal non-pharmaceutical interventions. In other words, the perception of 2009 H1N1 did not restrict the willingness to travel to an international destination, if there was some adaptive behaviour, during the trip, that reduced the risk of infection. Likewise, Cossens & Gin (1994) found that even when New Zealand tourists were conscious of the risk of HIV infection, they did not change their

travel destination. During the COVID-19 pandemic, Perić, Dramićanin & Conić (2021) revealed that health, psychological, financial and destination risks had a negative influence on the intention to travel and the perceived travel risk had a negative effect on the intention to travel abroad. Likewise, other studies have confirmed that COVID-19 risk perception has a significant influence on the intention to travel (Bae & Chang, 2021; Liu, Shi, Li & Amin, 2021). Therefore, the following hypotheses are proposed:

Hypothesis 3: a) *Destination safety,* ***b)*** *travel risk,* ***c) s****afety concerns,* ***d)*** *social risk and* ***e)*** *European versus domestic travel risk influence the tourist's intention to visit a domestic destination.*
Hypothesis 4: a) *Destination safety,* ***b)*** *travel risk,* ***c) s****afety concerns,* ***d)*** *social risk and* ***e)*** *European versus domestic travel risk influence the tourist's intention to visit a European destination.*

To measure respondents' perceptions of risk associated with travel at any time, Floyd *et al*. (2004) found four measures of risk perception: destination risk, travel risk, safety concerns, and international versus domestic travel risk. However, the authors did not consider the possibility of interrelated effects between the different types of risk. Furthermore, to the best of my knowledge, this study is the first to examine the influence of social risk in a pandemic context, and previous studies have also never addressed its potential effect in exacerbating or reducing the perception of other types of risk. Given the gap in the literature, the following hypotheses are formulated:

Hypothesis 5: *Safety concerns influence the* ***a)*** *tourist's perception of destination safety and* ***b)*** *tourist's perception of travel risk.*
Hypothesis 6: *Social risk influences the* ***a)*** *tourist's perception of destination safety and* ***b)*** *tourist's perception of travel risk.*
Hypothesis 7: *Destination safety has a mediating effect between safety concerns and the tourist's intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*
Hypothesis 8: *Destination safety has a mediating effect between social risk and the tourist's intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*
Hypothesis 9: *Travel risk has a mediating effect between safety concerns and the tourist's intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*
Hypothesis 10: *Travel risk has a mediating effect between social risk and the tourist's intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*

In addition, little is known about the potential moderating role of perceived risk in certain relations (Rather, 2021). Given the gap in the literature, the following moderating effects are proposed:

Hypothesis 11: a) *Destination safety,* ***b)*** *travel risk,* ***c) s****afety concerns,* ***d)*** *social risk and* ***e)*** *European versus domestic travel risk moderate the effect of push travel motivations on the tourist's intention to visit a domestic destination.*
Hypothesis 12: a) *Destination safety,* ***b)*** *travel risk,* ***c) s****afety concerns,* ***d)*** *social risk and* ***e)*** *European versus domestic travel risk moderate the effect of push travel motivations on the tourist's intention to visit a European destination.*

2.3. The influence of Gender and Education
Research suggests that there are two types of subjective factors that affect risk perception: demographic variables and individual cognitive abilities (Cui, Liu, Chang, Duan & Li, 2016). The first category includes sociodemographic factors such as age, gender, educational experience, academic background, social status, geography, education level, income and social experience. While the second category focuses on

psychographic factors such as personality, emotions, motivations, values, cognitive and meta-cognitive aspects.

Regarding gender, Amir, Ismail & See (2015) stated that women are more sensitive to risk than men and Bae & Chang (2021) found that the effect of risk perception on behavioural intention was much stronger in women than in men. Contrasting, Sönmez & Graefe (1998a, b) did not find a relation between gender and risk perception. And Reisinger & Movando (2005) detected a correlation between gender and risk perception limited to certain subcategories of risk perception. In the same way, Lepp & Gibson's (2008) found that gender is significant in regard to the strangeness of food in a destination, nonetheless is not significant in regard to terrorism risk. In this sense, they concluded that gender influences risk factors that could disrupt a holiday, but does not influence risk factors that threaten life. Still, Park & Reisinger (2010), in their survey on determinants of perception of natural and general risk noticed that the impact of both risks is greater for female tourists than for male tourists. Opposing, Kozak, Crotts & Law (2007) referred that older male tourists were less likely to change their travel plans when occurs a natural disaster, a terrorist attack or something that affect the tourist's health.

Regarding educational attainment, the majority of the studies agree on the effect of educational level on risk perception. Sönmez & Graefe (1998a) and Park & Reisinger (2010) found that educational attainment is negatively associated with risk perception. Therefore, higher educated tourists perceive the influence of risk on travel intention as lower.

Given so, Karl & Schmude (2017) argued that assumptions regarding sociodemographic variables as factors influencing perceived risk are inconsistent and contradictory. Rather (2021) recommend that future research explore the role of socio-demographic variables in the context of the Covid pandemic. Hence, the following hypotheses are postulated:

Hypothesis 13: *There are differences between female and male participants in terms of the relationships among tourists' travel motivation, risk perception and intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*
Hypothesis 14: *There are differences between tourists with low/middle educational attainment and high educated tourists in terms of the relationships among tourists' travel motivation, risk perception and intention to visit* ***a)*** *a domestic destination or* ***b)*** *a European destination.*

Accordingly, the subsequent conceptual model is proposed (Figure 1).

3. Data and Methods

3.1. Data collection and sample

Prior to the main survey, a pilot online survey was conducted in order to check the reliability of the measurement items and verify that the respondents understand the questions. No problems were detected, Cronbach's alpha values were greater than 0.7 (Hair, Hult, Ringle & Sarstedt, 2017). Regarding the sample size, the rule of thumb was implemented, in order to fulfil the prerequisites for applying covariance-based structural equation modelling (Wolf, Harrington, Clark & Miller, 2013). In this sense, the sample size should be 380 participants (10*38, where 38 is the number of observed variables).

The research followed a quantitative approach by gathering data from 1315 Portuguese over 18 years old. Respondents under 18 years old were considered in the analysis, as they did not have the maturity to judge the degree of perceived risk. Additionally, only leisure travellers (holidaymakers) were sought for this study. The study applied a non-probability sampling approach. In this sense, an online survey was

distributed by sharing the link on social platforms sites and sending the link via email. The study data were collected during the period between April and May 2021, when new waves of COVID-19 cases were sweeping across several countries (Portugal included) and the vaccination process was being initiated.

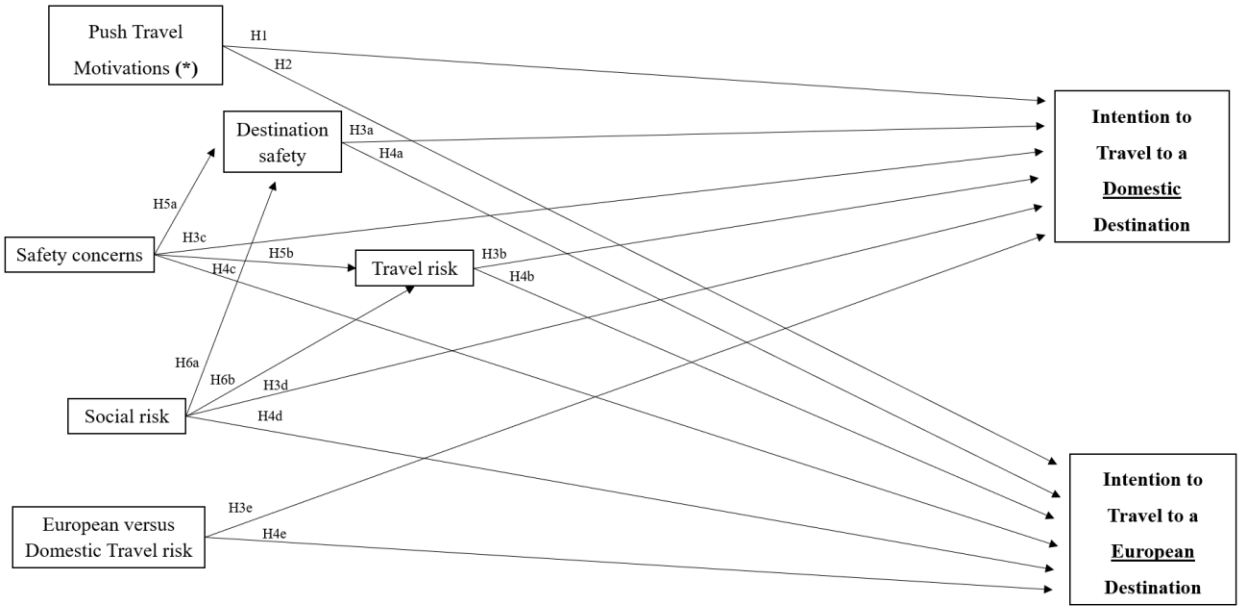

Figure 1. *Conceptual Model*

Note: (*) the push travel motivations under study are relaxation/escape, knowledge acquisition, socialization, prestige, and excitement/adventure. For the sake of image readability, the moderation effects of risk perception between push travel motivations and travel intentions (H10 e H11), nor the effects of gender and education level (H13 e H14), were not added to the graphical representation.

3.2. Measurement Instrument

Travel intention, the dependent variable, was measured by asking respondents if they intended, planned and were willing to invest time and money to leisure travel, to a domestic and a European destination, in the next 12 months (from the time of the survey). Instead of measuring the intentions to leisure travel to an explicit destination, a general measure of travel intentions was adopted in order to gain insight into how risk perception influences the general propensity to leisure travel, eliminating the effect of familiarity with the destination. In this sense, this study analyses the risk and safety perceptions in relation to any destination (see Appendix 1). The items for measuring travel intention were adapted from the study of Lee *et al.* (2012) and the response format was as follows: Never (1), Very Low (2), Low (3), Maybe (4), High (5), Very High (6) and For sure I will (7).

Travel motivation was measured using the sociopsychological motivators scale (see Appendix 1) developed by Baloglu & McCleary (1999). Items for measuring risk perception were adapted from the study of Floyd *et al.* (2004), He *et al.* (2013), Lee *et al.* (2012), and Aebli *et al.* (2021). The scale was adapted to reflect the travel risk, destination safety, safety concerns, social risk, and travel risk between European and domestic destinations during the COVID-19 pandemic (see Appendix 1). According to Aebli *et al.* (2021), the attributes most valued by tourists during the COVID-19 pandemic are "wide open spaces and facilities", "being outdoors and fresh air", "avoiding crowds" and "health and safety measures", so the

scale was adapted to reflect these features. In this sense, travel risk reflects the participants' fear of travelling in the next 12 months, while destination safety reflects the participants' confidence to stay in a destination with certain characteristics and regarding specific tourist attractions. Safety concerns express the participants' appreciation for safety and health and safety measures during their leisure trips. Social risk measures the disapproval of family and friends regarding the vacation choices of the tourist. And, the perceived travel risk between European and domestic destinations measures whether the risk is perceived as different or similar by participants. The scales of travel motivation and risk perception were measured by a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree. The respondents' sociodemographic characteristics like age, gender, and education level were also included in the questionnaire.

3.3. Data Preparation and Analysis

This study used partial least squares structural equation modelling (PLS-SEM), with the SmartPLS version 3.3.3., to validate the measurement model, test the hypotheses and conduct a multi-group analysis (Hair *et al*., 2017; Urbach & Ahlemann, 2010). PLS was applied because it can estimate complex research models, is also a common structural equation modelling technique to estimate the behavioural constructs, and is suitable for studies that are predisposed toward prediction (Henseler, Ringle & Sarstedt, 2015).

Before performing factor analysis and structural equation modelling, a descriptive analysis of the sample was performed. An exploratory factor analysis (EFA) was performed on the items of "perceived risk" since the scale aggregates previously published scales. EFA revealed five factors, explaining 73.70% of the total variance. To understand the relationships between each construct, confirmatory factor analysis (CFA) was then applied and the results confirmed the theoretical factorial structure. After the factor analysis, it was performed a validation of the structural model. Estimations of skewness and kurtosis were conducted and the results support the univariate normality of data (Table 1) since skewness values ranged from – 1.825 to 1.210 and kurtosis values ranged between – 1.163 and 2.836 (Hair *et al*., 2017). To check the Common Method Variance (CMV), two methods were applied: variance inflation factors (VIFs) and the correlation matrix procedure (Kock, 2015). The construct travel motivation "Excitement/Adventure" was deleted due to multicollinearity problems. The remaining constructs presented values of VIFs below 5 and the correlation between constructs was less than 0.9, hence it was verified the lack of CMV and/or multi-collinearity in this research (Kock & Lynn, 2012).

Table 1. *Descriptive analysis*

Items	Mean	Median	Standard Deviation	Skewness	Kurtosis
TI_ED1	4.021	4	1.887	0.150	-1.162
TI_ED2	3.946	4	1.859	0.161	-1.108
TI_ED3	3.945	4	1.882	0.167	-1.126
TI_DD1	5.614	6	1.484	-0.911	-0.002
TI_DD2	5.465	6	1.538	-0.812	-0.215
TI_DD3	5.436	6	1.588	-0.828	-0.185
TM_Relax1	5.783	6	1.497	-1.341	1.136
TM_Relax2	5.621	6	1.592	-1.177	0.569
TM_Relax3	5.911	6	1.392	-1.478	1.702
TM_Relax4	4.605	5	1.733	-0.392	-0.680
TM_Relax5	5.983	6	1.386	-1.566	1.885
TM_Excite1	5.515	6	1.52	-1.042	0.433
TM_Excite2	5.424	6	1.574	-0.973	0.218
TM_Excite3	5.405	6	1.568	-0.968	0.221
TM_Excite4	6.093	7	1.346	-1.757	2.605
TM_Know1	5.852	6	1.414	-1.355	1.224

Items	Mean	Median	Standard Deviation	Skewness	Kurtosis
TM_Know2	5.954	6	1.376	-1.440	1.432
TM_Know3	5.868	6	1.444	-1.356	1.126
TM_Know4	6.151	7	1.297	-1.825	2.836
TM_S1	5.004	5	1.587	-0.601	-0.308
TM_S2	4.777	5	1.623	-0.470	-0.479
TM_P1	3.976	4	2.003	-0.036	-1.163
TM_P2	4.739	5	1.923	-0.484	-0.912
TR1	3.885	3	1.858	0.258	-1.072
TR2	3.502	3	1.757	0.436	-0.816
TR3	2.376	2	1.566	1.210	0.719
TR4	3.665	3	1.808	0.352	-0.903
DS1	3.233	3	1.612	0.545	-0.455
DS2	2.287	2	1.382	1.208	1.124
DS3	3.064	3	1.517	0.637	-0.200
DS4	3.944	4	1.595	0.143	-0.736
SC1	2.703	2	1.566	0.917	0.206
SC2	2.522	2	1.496	1.000	0.450
SC3	2.412	2	1.476	1.095	0.602
SC4	2.636	2	1.585	0.978	0.353
EDTR1	3.884	4	1.714	0.079	-0.859
EDTR2	4.001	4	1.814	0.061	-1.055
SR1	4.657	4	1.819	-0.207	-1.003
SR2	4.195	4	1.936	-0.011	-1.113

Note: See full name of items in Appendix 1.

4. Results

4.1. Respondents' profile

Table 2 lists the sociodemographic characteristics of respondents. Of 1315 respondents, 892 were female and 423 were male. The majority of the respondents (69%) were between the ages of 18 and 30, 46.5% had a university education or higher and 49.7% completed the higher secondary school. Closely half of the respondents were students (49.1%) and 34.9% had full-time jobs.

Table 2. *Sample description (N = 1315)*

Features	Category	Frequency	%
Gender	*Male*	423	32.2%
	Female	892	67.8%
Age	*18 – 30*	908	69.0%
	31 – 40	115	8.7%
	41 – 50	178	13.5%
	51 – 60	89	6.8%
	> 60	25	1.9%
Education Level	*Junior high school*	49	3.7%
	Higher secondary school	652	49.6%
	Bachelor's degree	498	37.9%
	Master's degree	99	7.5%
	Doctoral degree	17	1.3%
Occupation	*Full-time job*	459	34.9%
	Part-time job	23	1.7%
	Student-worker	110	8.4%
	Student	646	49.1%
	Retired	12	0.9%
	Looking for a job	52	4.0%
	Other	13	1.0%

4.2. Measurement model assessment

Based on the results of Confirmatory Factor Analysis (CFA), four items were deleted due to low factor loadings (lower than 0.5) including TM_Relax4 (Getting away from crowds), TR1 (I feel nervous about traveling right now), DS3 (Vacation travel is perfectly safe) and DS4 (Visiting monuments/museums/art galleries are safe tourist activities).

As provided in Table 3, all Cronbach's alpha (α) are between 0.703 to 0.962, and composite reliability (CR) and average variances extracted (AVE) above recommended minimums of 0.70 and 0.50, respectively (Hair *et al*., 2017). Additionally, all factor loadings are significant ($p < 0.001$) and above 0.6, indicating high levels of internal consistency and adequate item reliability (Hair *et al*., 2017).

Table 3. *Reliability and validity of measurable items*

Constructs	Cronbach's Alpha	rho_A	CR	AVE	Items	Factor Loadings
TI_ED	0.961	0.964	0.961	0.892	TI_ED1	0.876
					TI_ED2	0.973
					TI_ED3	0.981
TI_DD	0.962	0.962	0.962	0.893	TI_DD1	0.944
					TI_DD2	0.961
					TI_DD3	0.929
TM_Relax	0.920	0.924	0.920	0.743	TM_Relax1	0.856
					TM_Relax2	0.773
					TM_Relax3	0.896
					TM_Relax5	0.917
TM_Know	0.955	0.955	0.955	0.841	TM_Know1	0.900
					TM_Know2	0.914
					TM_Know3	0.899
					TM_Know4	0.955
TM_S	0.880	0.882	0.881	0.787	TM_S1	0.908
					TM_S2	0.866
TM_P	0.807	0.828	0.814	0.688	TM_P1	0.747
					TM_P2	0.905
TR	0.843	0.872	0.839	0.642	TR2	0.678
					TR3	0.976
					TR4	0.715
DS	0.703	0.736	0.715	0.561	DS1	0.645
					DS2	0.840
SC	0.849	0.853	0.851	0.588	SC1	0.757
					SC2	0.790
					SC3	0.806
					SC4	0.712
EDTR	0.751	0.772	0.759	0.614	EDTR1	0.858
					EDTR2	0.700
SR	0.775	0.775	0.775	0.633	SR1	0.798
					SR2	0.793

Note: See full name of items in Appendix 1.

Moreover, the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT) were applied to establish discriminant validity. As presented in Table 4, the square root of AVE of each construct was greater than the correlation with any other construct in the model, thus supporting the Fornell-Larcker

criterion. HTMT was less than 0.90, indicating that discriminant validity has been established between two reflective variables (Hair *et al*., 2017; Henseler *et al*., 2015). Based on these results, the model was validated.

Table 4. *Fornell-Larcker criterion and HTMT ratios*

	DS	EDTR	SC	SR	TI_DD	TI_ED	TM_Know	TM_P	TM_Relax	TM_S	TR
DS	**0.749**	0.352	0.685	0.193	0.342	0.164	0.468	0.310	0.488	0.336	0.473
EDTR	0.353	**0.783**	0.383	0.299	0.119	0.266	0.300	0.307	0.268	0.303	0.152
SC	0.675	0.381	**0.767**	0.304	0.265	0.140	0.516	0.351	0.595	0.417	0.559
SR	0.187	0.288	0.304	**0.795**	0.070	0.080	0.217	0.314	0.254	0.243	0.439
TI_DD	0.343	0.123	0.265	0.070	**0.945**	0.451	0.384	0.261	0.419	0.295	0.103
TI_ED	0.168	0.267	0.139	0.081	0.451	**0.945**	0.366	0.233	0.266	0.301	0.101
TM_Know	0.471	0.298	0.515	0.217	0.385	0.366	**0.917**	0.474	0.759	0.691	0.379
TM_P	0.310	0.301	0.350	0.308	0.262	0.235	0.474	**0.830**	0.482	0.622	0.194
TM_Relax	0.489	0.267	0.595	0.253	0.419	0.267	0.762	0.481	**0.862**	0.600	0.369
TM_S	0.335	0.299	0.415	0.242	0.294	0.301	0.691	0.611	0.600	**0.887**	0.229
TR	0.470	0.049	0.570	0.417	0.117	-0.050	0.389	0.198	0.381	0.231	**0.801**

Note: In bold is the square-root of the AVE. Above the bold diagonal factors are the HTMT ratios and under are the estimated correlations.

Prior to performing a multi-group analysis (MGA) to compare the path coefficients between groups, measurement invariance was tested. Using measurement invariance for composite (MICOM) approach, configurational invariance and partial measurement invariance was established (Henseler, Ringle & Sarstedt, 2016) for the following groups: female participants versus male participants (Table 5), and low/middle educational attainment versus high educated tourists" (Table 6).

Table 5. *Results of measurement invariance testing: female participants versus male participants*

Constructs	Con-figural invari-ance	Compositional Invariance		Partial measure-ment invariance established	Equal mean assessment			Equal variance assessment			Full measure-ment inva-riance established
		Corre-lation	Permutation p-Values		Differ-ences	Permutation p-Values	Equal	Differ-ences	Permutation p-Values	Equal	
DS	Yes	0.999	0.439	Yes	0.140	0.036	No	-0.092	0.406	Yes	No
EDTR	Yes	0.993	0.229	Yes	0.041	0.562	Yes	-0.157	0.052	Yes	Yes
SC	Yes	0.999	0.261	Yes	0.312	< 0.001	No	-0.275	0.022	No	No
SR	Yes	1.000	0.617	Yes	-0.093	0.186	Yes	0.080	0.260	Yes	Yes
TI_DD	Yes	1.000	0.521	Yes	0.176	0.016	No	-0.230	0.027	No	No
TI_ED	Yes	1.000	0.313	Yes	-0.014	0.841	Yes	-0.202	< 0.001	No	Yes
TM_Know	Yes	1.000	0.209	Yes	0.326	< 0.001	No	-0.286	0.053	Yes	No
TM_P	Yes	0.999	0.644	Yes	0.216	0.005	No	-0.007	0.916	Yes	No
TM_Relax	Yes	1.000	0.543	Yes	0.347	< 0.001	No	-0.401	0.004	No	No
TM_S	Yes	1.000	0.781	Yes	0.257	< 0.001	No	-0.023	0.815	Yes	No
TR	Yes	0.997	0.093	Yes	0.242	< 0.001	No	-0.294	0.003	No	No

Table 6. *Results of measurement invariance testing: tourists with low/middle educational attainment versus high educated tourists*

Constructs	Configural invariance	Compositional Invariance		Partial measurement invariance established	Equal mean assessment			Equal variance assessment			Full measurement invariance established
		Correlation	Permutation p-Values		Differences	Permutation p-Values	Equal	Differences	Permutation p-Values	Equal	
DS	Yes	1.000	0.438	Yes	-0.057	0.291	Yes	0.127	0.137	Yes	Yes
EDTR	Yes	1.000	0.687	Yes	-0.134	0.015	No	0.052	0.410	Yes	No
SC	Yes	1.000	0.459	Yes	0.062	0.233	Yes	0.156	0.081	Yes	Yes
SR	Yes	1.000	0.602	Yes	-0.01	0.852	Yes	-0.072	0.227	Yes	Yes
TI_DD	Yes	1.000	0.380	Yes	-0.12	0.032	No	0.069	0.367	Yes	No
TI_ED	Yes	1.000	0.742	Yes	-0.207	0.001	No	-0.085	0.102	Yes	No
TM_Know	Yes	1.000	0.396	Yes	-0.137	0.011	No	0.247	0.023	No	No
TM_P	Yes	0.998	0.111	Yes	0.108	0.046	No	-0.069	0.230	Yes	No
TM_Relax	Yes	1.000	0.584	Yes	-0.091	0.091	Yes	0.011	0.894	Yes	Yes
TM_S	Yes	1.000	0.741	Yes	-0.056	0.327	Yes	0.112	0.122	Yes	Yes

4.3. Structural model and hypothesis testing

Regarding model fit, the standardized root mean square residual (SRMR) was 0.039, hence an SRMR value lower than 0.10 confirmed an acceptable model fit. Furthermore, the model's predictive power was assessed by examining R^2 value and Stone Gaesser's (Q^2) value. All R^2 values were higher than 0.10 (DS: 0.456; TR: 0.390; TI_DD: 0.233; TI_ID: 0.206) and all Q^2 were above zero (DS: 0.284; TR: 0.245; TI_DD: 0.163; TI_ID: 0.139), thus the model has a meaningful predictive power (Hair *et al*., 2017).

Table 7 indicates the estimated path coefficients for the model's proposed relationships. Regarding the impacts of travel motivations on the intention to visit a destination, results reveal that travel motivation "Relaxation/Escape" has a positive and significant effect on the intention to visit a domestic destination ($\beta = 0.264$, $p < 0.001$). While travel motivation "Knowledge" has a positive and significant effect on the intention to visit a domestic destination ($\beta = 0.1439$, $p = 0.008$) and a European destination ($\beta = 0.375$, $p < 0.001$). The other travel motivations present in the study (Socialization and Prestige) do not have a significant effect on the intention to visit. Unsurprisingly, the feelings of discomfort and anxiety about travel in general (travel risk) negatively influence the intention to visit a domestic destination ($\beta = -0.137$, $p = 0.003$) and a European destination ($\beta = -0.235$, $p < 0.001$). Besides the feelings of comfort about travel to a destination with particular favourable attributes (destination safety) has a positive and significant effect on the intention to visit a domestic destination ($\beta = 0.254$, $p < 0.001$) and the perception of risk between European and domestic travel has a positive and significant effect on the intention to visit a European destination ($\beta = 0.133$, $p = 0.001$). In addition, safety concerns have a positive and significant effect on destination safety ($\beta = 0.681$, $p < 0.001$) and travel risk ($\beta = 0.488$, $p < 0.001$). And, social risk has a positive and significant effect on travel risk ($\beta = 0.269$, $p < 0.001$).

All the moderating effects on the relationship between travel motivations and travel intentions (Hypotheses 11 and 12) are not statistically significant (Table 9). Nevertheless, there are five statistically significant mediating effects (Table 8). Safety concerns exert an indirect impact on the intention to visit a domestic destination via destination safety ($\beta = 0.173$, $p < 0.001$) and travel risk ($\beta = -0.067$, $p = 0.003$). Relatedly, safety concerns exert an indirect impact on the intention to visit a European destination via travel risk ($\beta = -0.115$, $p < 0.001$). Moreover, social risk has an indirect impact, via travel risk, on the intention to visit a domestic destination ($\beta = -0.037$, $p = 0.006$) and on the intention to visit a European

destination (β = -0.063, p < 0.001). On the whole, the findings suggest that safety concerns and social risk indirectly decrease intention to travel by enhancing travel risk during a pandemic. The findings also suggest that safety concerns indirectly increase the intention to visit a domestic destination by enhancing destination safety during the pandemic.

Table 7. *Direct effects*

Hypotheses	Paths	Supported	β	P Values
H1a	**TM_Relax -> TI_Domestic Destination**	**Yes**	0.264	< 0.001
H1b	**TM_Know -> TI_Domestic Destination**	**Yes**	0.143	0.008
H1c	TM_S -> TI_Domestic Destination	No		
H1d	TM_P -> TI_Domestic Destination	No		
H2a	TM_Relax -> TI_European Destination	No		
H2b	**TM_Know -> TI_European Destination**	**Yes**	0.375	< 0.001
H2c	TM_S -> TI_European Destination	No		
H2d	TM_P -> TI_European Destination	No		
H3a	**Destination safety -> TI_Domestic Destination**	**Yes**	0.254	< 0.001
H3b	**Travel Risk -> TI_Domestic Destination**	**Yes**	-0.137	0.003
H3c	Safety Concerns -> TI_Domestic Destination	No		
H3d	Social Risk -> TI_Domestic Destination	No		
H3e	European versus Domestic Travel risk -> TI_Domestic Destination	No		
H4a	Destination safety -> TI_European Destination	No		
H4b	**Travel Risk -> TI_European Destination**	**Yes**	-0.235	< 0.001
H4c	Safety Concerns -> TI_European Destination	No		
H4d	Social Risk -> TI_European Destination	No		
H4e	**European versus Domestic Travel risk -> TI_European Destination**	**Yes**	0.133	0.001
H5a	**Safety Concerns -> Destination safety**	**Yes**	0.681	< 0.001
H5b	**Safety Concerns -> Travel Risk**	**Yes**	0.488	< 0.001
H6a	Social Risk -> Destination safety	No		
H6b	**Social Risk -> Travel Risk**	**Yes**	0.269	< 0.001

Table 8. *Indirect effects*

Hypotheses	Paths	Supported	β	P Values
H7a	**Safety Concerns -> Destination safety -> TI_Domestic Destination**	**Yes**	0.173	< 0.001
H7b	Safety Concerns -> Destination safety -> TI_European Destination	No		
H8a	Social Risk -> Destination safety -> TI_Domestic Destination	No		
H8b	Social Risk -> Destination safety -> TI_European Destination	No		
H9a	**Safety Concerns -> Travel Risk -> TI_Domestic Destination**	**Yes**	-0.067	0.003
H9b	**Safety Concerns -> Travel Risk -> TI_European Destination**	**Yes**	-0.115	< 0.001
H10a	**Social Risk -> Travel Risk -> TI_Domestic Destination**	**Yes**	-0.037	0.006
H10b	**Social Risk -> Travel Risk -> TI_European Destination**	**Yes**	-0.063	< 0.001

Table 9. *Moderating effects*

Hypotheses	Paths	Supported	β	P Values
H11a	TM_Relax x Destination Safety -> TI_Domestic Destination	No	-0.137	0.914
	TM_Know x Destination Safety -> TI_Domestic Destination	No	-0.017	0.994
	TM_S x Destination Safety -> TI_Domestic Destination	No	-0.046	0.983
	TM_P x Destination Safety -> TI_Domestic Destination	No	-0.050	0.966
H11b	TM_Relax x Travel Risk -> TI_Domestic Destination	No	0.036	0.967
	TM_Know x Travel Risk -> TI_Domestic Destination	No	0.160	0.928
	TM_S x Travel Risk -> TI_Domestic Destination	No	-0.089	0.969
	TM_P x Travel Risk -> TI_Domestic Destination	No	-0.045	0.977
H11c	TM_Relax x Safety Concerns -> TI_Domestic Destination	No	0.026	0.982
	TM_Know x Safety Concerns -> TI_Domestic Destination	No	-0.202	0.860
	TM_S x Safety Concerns -> TI_Domestic Destination	No	-0.148	0.941
	TM_P x Safety Concerns -> TI_Domestic Destination	No	-0.016	0.981
H11d	TM_Relax x Social Risk -> TI_Domestic Destination	No	0.136	0.924
	TM_Know x Social Risk -> TI_Domestic Destination	No	0.046	0.987
	TM_S x Social Risk -> TI_Domestic Destination	No	-0.100	0.970
	TM_P x Social Risk -> TI_Domestic Destination	No	0.334	0.948
H11e	TM_Relax x European versus Domestic Travel risk -> TI_Domestic Destination	No	-0.116	0.944
	TM_Know x European versus Domestic Travel risk -> TI_Domestic Destination	No	0.473	0.866
	TM_S x European versus Domestic Travel risk -> TI_Domestic Destination	No	-0.235	0.918
	TM_P x European versus Domestic Travel risk -> TI_Domestic Destination	No	-0.059	0.965
H12a	TM_Relax x Destination Safety -> TI_European Destination	No	0.303	0.987
	TM_Know x Destination Safety -> TI_European Destination	No	-0.064	0.996
	TM_S x Destination Safety -> TI_European Destination	No	-0.345	0.992
	TM_P x Destination Safety -> TI_European Destination	No	0.150	0.993
H12b	TM_Relax x Travel Risk -> TI_European Destination	No	-0.007	0.999
	TM_Know x Travel Risk -> TI_European Destination	No	-0.010	0.989
	TM_S x Travel Risk -> TI_European Destination	No	-0.086	0.998
	TM_P x Travel Risk -> TI_European Destination	No	0.027	0.996
H12c	TM_Relax x Safety Concerns -> TI_European Destination	No	-0.081	0.991
	TM_Know x Safety Concerns -> TI_European Destination	No	0.179	0.984
	TM_S x Safety Concerns -> TI_European Destination	No	-0.227	0.983
	TM_P x Safety Concerns -> TI_European Destination	No	0.119	0.992
H12d	TM_Relax x Social Risk -> TI_European Destination	No	0.165	0.993
	TM_Know x Social Risk -> TI_European Destination	No	-0.107	0.997
	TM_S x Social Risk -> TI_European Destination	No	-0.153	0.994
	TM_P x Social Risk -> TI_European Destination	No	0.159	0.987
H12e	TM_Relax x European versus Domestic Travel risk -> TI_European Destination	No	0.003	0.998
	TM_Know x European versus Domestic Travel risk -> TI_European Destination	No	-0.066	0.993
	TM_S x European versus Domestic Travel risk -> TI_European Destination	No	0.067	0.986
	TM_P x European versus Domestic Travel risk -> TI_European Destination	No	0.051	0.997

The multi-group analyse conducted to compare differences in the coefficients of the structural paths for female and male participants indicates that all path coefficients are not significantly different between the two groups (Table 10). Therefore, H13a and H13b are not confirmed.

Table 10. *Results of MGA: Group female participants versus Group male participants*

Hypotheses	Paths	Path coefficient Difference	p-Value (GROUP_female participants vs GROUP_ male participants)	Supported
H1a	TM_Relax -> TI_Domestic Destination	-0.152	0.114	No
H1b	TM_Know -> TI_Domestic Destination	-0.096	0.329	No
H1c	TM_S -> TI_Domestic Destination	-0.116	0.192	No
H1d	TM_P -> TI_Domestic Destination	0.085	0.295	No
H2a	TM_Relax -> TI_European Destination	-0.165	0.077	No
H2b	TM_Know -> TI_European Destination	0.000	0.995	No
H2c	TM_S -> TI_European Destination	-0.081	0.368	No
H2d	TM_P -> TI_European Destination	0.067	0.398	No
H3a	Destination safety -> TI_Domestic Destination	0.059	0.440	No
H3b	Travel Risk -> TI_Domestic Destination	0.019	0.807	No
H3c	Safety Concerns -> TI_Domestic Destination	0.058	0.540	No
H3d	Social Risk -> TI_Domestic Destination	0.082	0.260	No
H3e	European versus Domestic Travel risk -> TI_Domestic Destination	0.046	0.522	No
H4a	Destination safety -> TI_European Destination	-0.024	0.755	No
H4b	Travel Risk -> TI_European Destination	0.082	0.322	No
H4c	Safety Concerns -> TI_European Destination	-0.025	0.785	No
H4d	Social Risk -> TI_European Destination	0.146	0.052	No
H4e	European versus Domestic Travel risk -> TI_European Destination	0.040	0.581	No
H5a	Safety Concerns -> Destination safety	0.095	0.207	No
H5b	Safety Concerns -> Travel Risk	0.046	0.501	No
H6a	Social Risk -> Destination safety	-0.014	0.835	No
H6b	Social Risk -> Travel Risk	-0.001	0.985	No

The comparisons of results by educational level, reported in Table 11, indicate that the path coefficient from social risk to intention to visit a European destination is significantly different between low/middle educational attainment and high educated tourists. The impact of social risk on intention to visit a European destination among high educated tourists is significant and much stronger than on tourists with low/middle educational attainment. Thus, H14a is not confirmed and H14b is partially confirmed.

5. Conclusions and Discussion

Contrarily to other epidemic outbreaks, the COVID-19 pandemic rapidly became a worldwide problem (Gössling *et al*., 2021), disrupted circular flows and economic transmission channels (Skare *et al*., 2021), and caused an unprecedented crisis in the tourism industry (Fotiadis *et al*, 2021). In this sense, and given the fact that pandemics like COVID-19 can occur again (Kim 2020), understanding the mechanisms that can influence and predict tourist travel decision become an emerging issue in tourism literature (Assaf *et al*., 2021). So far the majority of the empirical research on this has described risk perception as a set

of attributes related to risks that tourists can face during their journey, instead of dividing it into components (He *et al*., 2013). Furthermore, previous studies focused their investigations only on deterrent factors, leaving aside the study of motivations and their impacts on leisure travel intentions (Zenker & Kock, 2020).

Table 11. *Results of MGA: Group low/middle educational attainment versus Group high educated tourists*

Hypotheses	Path Coefficients (GROUP_ low/middle educational attainment)	Path Coefficients (GROUP_ high educated tourists)	Path coefficient Difference	p-Value (GROUP_ low/middle educational attainment)	p-Value (GROUP_ high educated tourists)	p-Value (GROUP_ low/middle educational attainment vs GROUP_ high educated tourists)	Supported
H1a	0.319	0.212	0.106	< 0.001	0.002	0.325	No
H1b	0.195	0.049	0.146	0.018	0.504	0.187	No
H1c	-0.049	0.030	-0.079	0.484	0.687	0.438	No
H1d	0.066	0.062	0.004	0.259	0.320	0.964	No
H2a	-0.032	-0.035	0.002	0.701	0.624	0.986	No
H2b	0.414	0.318	0.096	< 0.001	< 0.001	0.384	No
H2c	0.015	0.072	-0.058	0.843	0.351	0.597	No
H2d	0.011	0.067	-0.057	0.860	0.295	0.519	No
H3a	0.218	0.310	-0.092	0.017	< 0.001	0.432	No
H3b	-0.105	-0.184	0.079	0.100	0.008	0.402	No
H3c	-0.088	-0.002	-0.085	0.357	0.980	0.499	No
H3d	-0.026	0.042	-0.068	0.665	0.461	0.410	No
H3e	-0.080	-0.056	-0.024	0.178	0.287	0.767	No
H4a	-0.008	0.121	-0.129	0.918	0.094	0.225	No
H4b	-0.147	-0.308	0.161	0.033	< 0.001	0.097	No
H4c	-0.026	-0.018	-0.007	0.769	0.822	0.948	No
H4d	**-0.049**	**-0.124**	**0.075**	**0.406**	**0.018**	**0.029**	**Yes**
H4e	0.197	0.068	0.129	0.002	0.208	0.117	No
H5a	0.736	0.623	0.113	< 0.001	< 0.001	0.095	No
H5b	0.449	0.525	-0.075	< 0.001	< 0.001	0.197	No
H6a	-0.005	-0.037	0.032	0.914	0.484	0.651	No
H6b	0.320	0.219	0.102	< 0.001	< 0.001	0.146	No

Thus, this study took a different approach. In addition, to examine the direct effects of push motivations and risk perception on leisure travel intentions, it explores and examines the interrelated effects between the components of risk during the Covid-19 pandemic, as well as their mediators' and moderators' roles. To the best of my knowledge, this is the first study to explore such interactions with a consolidated and empirical approach to the study of push motivations, risk perception and leisure travel intentions, in the next 12 months, to domestic and European destinations.

The motivation relaxation/escape emerged as the main current reason to leisure travel to a domestic destination. Naturally, after all the changes imposed on individuals' daily lives due to Covid-19, individuals are eager to get away from their daily routines, relax physically and mentally, and relieve stress. This conclusion empirically validates the qualitative study of Aebli *et al.* (2021), regarding domestic leisure trips. The findings also show that acquisition of knowledge is the second main driver of intention to travel to a domestic destination and the only significant motivation to travel to a European destination. These results confirm the findings of Hamouda & Yacoub (2018) and Li & Cai (2012) and state that even in a pandemic environment, learning new things, experiencing different cultures and new places remain as one of the main reasons for individuals to leisure travel. Moreover, despite the long period of social isolation, socialization is not a significant motivation to encourage individuals to travel. This result is in line with the study of Lin & Nawijn (2020), which defends a decrease in the importance of the relationship-seeking motive, even before the occurrence of the COVID-19 pandemic.

Regarding the perceived travel risk, the study confirms the findings of Perić *et al.* (2021) that the fear of travelling negatively affects people's travel intentions to a European destination, but also points out that the same happened in relation to a domestic destination. The perception of the destination as safe emerges as the most significant predictor of domestic trips and tourists who perceive the risk between European and domestic travel as similar tend to opt for a European destination. In this sense, it seems that tourists perceive domestic destinations as being safer than destinations abroad. Contrary to the study of Floyd *et al.* (2004), which identified safety concerns as an antecedent of travel intentions in the aftermath of September 11, this study finds that safety concerns only have an indirect influence on the intention to travel. Thus, in a pandemic context, tourists who most value safety, and health and safety measures are those who have the least intention to travel in the next 12 months. This appreciation makes them more fearful about travelling and more confident about their safety when choosing lesser-known destinations or natural attractions. Consequently, they feel more comfortable travelling to a domestic destination. In the same way, tourists who feel that their family and friends disapprove of their vacation choices are more afraid to travel. Therefore, findings suggest that the disapproval enhances the tourists' perceived travel risk and lowers their intentions to travel.

Results also highlight that risk perception does not change the effect of push motivations on leisure travel intentions, since all moderating effects were found to be not significant. In this sense, risk perception has no impact on the reason why people travel to a destination. Furthermore, findings show that there are no differences between female and male participants, contrasting with the conclusions of Amir *et al.* (2015), Bae & Chang (2021), and Park & Reisinger (2010), who state that females' sensibility for travel risk is higher than that of men. Therefore, in the context of the COVID-19 pandemic, the influence of push motivations and risk perception is not gendered. Regarding education level, for tourists with a university degree, high levels of disapproval of their vacation choices by family and friends is a dissuasive factor when traveling to a European destination. These conclusions contradict other studies (Park & Reisinger, 2010; Sönmez & Graefe, 1998a) that argue that educational level contributes to reducing the negative influence of risk on travel intentions. Hence, in the context of the COVID-19 pandemic, the most educated tourists are those who are most influenced by the opinion of others, especially when they are considering travelling abroad.

5.1. Theoretical Implications

From a theoretical perspective, this empirical research improves the understanding of push motivations, leisure travel intentions and risk perception in general and in times of health crisis in

particular, and serves as an initial step toward a better understanding of the predictors of tourists' behaviour in the next 12 months.

This study contributes with new insights into how risk perception influences the general propensity to travel, since it takes a general measure of travel intentions and an integrated approach of perceived risk, instead of measuring travel intentions to a specific destination and risk perception as a set of attributes. In this matter, the study analyses risk perception as five different components (travel risk, destination safety, safety concerns, social risk and European versus domestic travel risk), as well as their direct, indirect and moderating effects on leisure travel intentions. As it assesses the interaction effects between components of perceived risks, this study found that, contrary to what was expected, safety concerns are not contributing to reducing the fear of travelling, but indirectly increase the intention to visit a domestic destination by increasing the perception of the destination as safe. This may suggest that misinformation about the pandemic situation of the destination may have led tourists who most value security issues to overestimate the risks of travelling and to prefer domestic destinations perceived as safe.

Apart from the mentioned risks, theoretically, social risk has been postulated as an important factor during the COVID-19 pandemic (Matiza, 2020). This study provides empirical support and evidence on how social risk has a negative, significant, indirect effect on the intention to travel. Additionally, regarding tourists with a university degree, the results show that its impact is direct and much stronger than for the tourists with a low/medium level of education. So far, this study is the first to incorporate, examine, and empirically validate the effect of social risk on leisure travel intention during the COVID-19 pandemic.

Unlike prior research, this study assesses the moderation role of travel risk, destination safety, social risk, safety concerns and European versus domestic travel risk, and empirically demonstrates that there is no moderating effect on the relationship between push motivations and leisure travel intentions. Finally, it clarifies the role of gender and education level regarding push motivations, risk perception and leisure travel intentions during the COVID-19 pandemic. Contrary to other scenarios, gender has no influence and high education levels turn social risk a deterrent to travel.

5.2. Managerial Implications

The findings enable the development of practical insights that may lead to the development of stronger tourism strategies. To begin with, travel risk is considered the most deterrent factor before traveling to a destination. Therefore, providing basic knowledge of the disease and the latest information on the evolution of the COVID-19 pandemic (e.g., outbreaks, contingency measures) in the destination may help tourists, their family and friends to build a correct understanding of the current pandemic situation in the chosen tourist destination. By displaying this information on websites, social media and travel apps (of the tourism office, the City Hall, travel services and travel agencies), it may be possible to simultaneously reduce the travel risk and the social risk and enhance the intention to travel. Nevertheless, as safety concerns increase the fear of travelling, this information must be communicated clearly and reliably, always resorting to official sources, and through content accessible to anyone. Likewise, tourism (marketing) practitioners must prioritize their responsiveness in the different channels available to tourists to minimize tourists' negative feelings and doubts.

In terms of the development of tourist products, marketers should promote destinations, which are seen as safe, such as natural areas, lesser-known travel destinations, small towns, villages and hamlets away from the crowds and popular tourist destinations. Similarly, must also reposition their products

in such a way that they do not pose as dangerous and safety should be reassured at different stages of travel. To do so, marketers should develop travel activities and programs, for instance, in rural and natural areas. Usually, rural tourism activities take place in areas with low density, the landscape and land use is characterized by the predominance of agriculture and forestry, the lifestyle is not stressful and rural culture is characterized by tradition and authenticity. Moreover, natural attractions, like national parks, forests, countryside areas and mountain areas, can offer opportunities to develop unique travel products associated with activities like astronomy, photography contests, birdwatching, hiking and visiting parks. Accordingly with the results of this study, these destinations are perceived as safe and satisfy motivations related to relaxation/escapism (significant for domestic tourism) and knowledge (significant independent of the tourist destination). Therefore, to awake these motivations, the advertising messages must highlight the benefits of seeking genuine contact with nature, immersing themselves in local traditions, learning about local fauna and flora, experiencing rural lifestyle (slow living), and seeking uniqueness. For tourists who intend to visit a European destination, the communication should also emphasize that the travel risk level is equal to that of a domestic trip.

5.3. Limitations and Future Research

One limitation of this study is that it depends on data from only one country (Portugal) to test the hypotheses. Authors like Fuchs & Reichel (2004) and Reisinger & Mavondo (2006) found significant differences in the overall risk perception among tourists from different countries. Therefore, future research can test the same theoretical model in other cultural contexts.

Second, due to THE non-probability sampling, it should be noted that 67.8% of the collected sample are women and 49.1% are students. Therefore, the representativeness of the survey's results to the population as a whole is subject to certain limitations. According to the most recent data, 52.06% of Portuguese travellers are women and 49.7% of travellers are inactive population, 24.2% of whom are students and 14.7% are retired (INE, 2020). In this sense, future studies should analyse a more representative sample.

Third, this study only considers push motivation and leisure trips, leaving aside travel for the sole purpose of visiting family and friends. Past studies like Roehl & Fesenmaier (1992) found that tourists visiting family or friends have a lower perception of risk than other tourists. Future investigation can also test the effect of length of trip, travel companion (i.e., presence of young children), the purpose of trip and type of accommodation on the perception of risk.

Fourth, data collection was limited to a snapshot of respondents at a given time. Regarding research on risk perception and visit intention, time is an important factor, because tourists are constantly acquiring new information and as a result, their future intentions may change (Karl & Schmude 2017). Given this, future researchers may adopt a longitudinal approach.

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Received: 05/09/2021
Accepted: 16/11/2021
Coordinating editor: Giacomo Del Chiappa

APPENDIX - List of Constructs and Adapted items

Constructs	Items
TRAVEL INTENTION (TI) ***European Destination (ED)***	I intend to travel to a European destination in the next 12 months (TI_ED1) I am planning to travel to a European destination in the next 12 months (TI_ED2) I will certainly invest time and money to travel to a European destination in the next 12 months (TI_ED3)
TRAVEL INTENTION (TI) ***Domestic Destination (DD)***	I intend to travel in Portugal in the next 12 months (TI_DD1) I am planning to travel in Portugal in the next 12 months (TI_DD2) I will certainly invest time and money to travel in Portugal in the next 12 months (TI_DD3)
TRAVEL MOTIVATION (TM) ***Relaxation/Escape (Relax)***	Relieving stress and tension (TM_Relax1) Getting away from demands of everyday life (TM_Relax2) Relaxing physically and mentally (TM_Relax3) Getting away from crowds (TM_Relax4) Escaping from the routine (TM_Relax5)
TRAVEL MOTIVATION (TM) ***Excitement/Adventure (Excite)***	Doing exciting things (TM_Excite1) Finding thrills and excitement (TM_Excite2) Being adventurous (TM_Excite3) Having fun, being entertained (TM_Excite4)
TRAVEL MOTIVATION (TM) ***Knowledge (Know)***	Learning new things, increasing my knowledge (TM_Know1) Experiencing different cultures and ways of life (TM_Know2) Enriching myself intellectually (TM_Know3) Experiencing new/different places (TM_Know4)
TRAVEL MOTIVATION (TM) ***Social (S)***	Meeting people with similar interests (TM_S1) Developing close friendships (TM_S2)
TRAVEL MOTIVATION (TM) ***Prestige(P)***	Going places my friends have not been (TM_P1) Telling my friends about the trip (TM_P2)

Constructs	Items
TRAVEL RISK (TR)	I feel nervous about traveling right now (TR1) Traveling is risky now (TR2) Because of the COVID-19 pandemic, pandemic places with crowds should be avoided (TR3) I would feel very uncomfortable traveling now (TR4)
DESTINATION SAFETY (DS)	Traveling to less touristy places is safe (DS1) Trips to natural area scenic attractions are safe right now (DS2) Vacation travel is perfectly safe (DS3) Visiting monuments/museums/art galleries are safe tourist activities (DS4)
SAFETY CONCERNS (SC)	Safety is the most important attribute a destination can offer (SC1) Safety is a serious consideration when choosing a travel destination (SC2) Additional measures for sanitizing transports, tourist services and attraction make traveling safe (SC3) Widespread vaccination and digital vaccine certificates make tourist travel safe (SC4)
EUROPEAN vs. DOMESTIC TRAVEL RISK (EDTR)	European travel is just as safe as domestic travel (EDTR1) Domestic travel is just as risky as European travel (EDTR2)
SOCIAL RISK (SR)	Traveling now will negatively affect others' opinions of me (SR1) Friends and relatives will disapprove my vacations (SR2)