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Influence of Risk Perception during COVID-19 on Travel Behavior of German Tourists

An Opportunity for Domestic Tourism?

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Thesis abstract

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The travel and tourism industry of this century has been severely impacted by numerous external shocks. The COVID-19 pandemic in particular led to a global crisis in the tourism sector, as travel restrictions and lockdowns brought international travel to a virtual standstill. As a result, domestic tourism in Germany gained in importance, with an increase of such as a result of many Germans preferring to travel within their home country during uncertain times as part of their national culture.

This study aims to examine the impact of COVID-19 on travel behavior and destination choice of German tourists in 2020 to 2023. Its research was based on a quantitative method involving an online survey of 204 valid cases and used factor analyses to examine relations between items and measure constructs, for which internal consistency was demonstrated. Correlation analyses aimed to test hypotheses, which identified relationships between variables for five of seven hypotheses made. Independent samples t-tests were further conducted to reveal significant differences between the roles of gender and age on adaptive behavior as well as risk perception.

Researching the relationship between adaptive behavior and domestic travel, the study finds that German tourists choosing to travel domestically adapted their travel behavior as part of a protection motivation in order to reduce risk during the coronavirus pandemic. It further investigates how risk perception, vulnerability, and international travel experience influence domestic travel decision and reveals age and gender differences among the sample towards such. For gender differences, findings of this study indicate that females overall perceived higher travel risks. The role of age has shown to be a crucial element in domestic destination choice and adaptive behavior, indicating higher levels of such among older respondents. While risk perception boosted domestic destination decision especially in 2020, the study showed that such influence decreased as the pandemic progressed, vaccines became available and normalized conditions returned, resulting in German tourists to gradually prefer to return to international travel.

The various threats of recent years certainly have permanently changed the tourism sector as a whole and respective long-term consumer behavior, in which personal safety has shown to be a new basic requirement for all German travelers alike. Such need of safety is expected to drive the trend away from mass tourism towards more sustainable and nature-based tourism.

¹ Keywords: COVID-19, Protection motivation, Risk perception, Domestic tourism, Travel behavior

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Terms and Abbreviations

| | |
|------------------------|--|
| PMT | Protection Motivation Theory |
| VFR | Visiting Friends and Relatives |
| Bleisure travel | The Combination of a Business and Leisure Trip |
| DMO | Destination Management Organization |
| GNTB | German National Tourist Board |

1 INTRODUCTION

The 21st century has been one of the most challenging ones for the world tourism industry. Several external shocks and threats marked recent years, from the 9/11 terrorist attacks in 2001, to the first pandemic of the century in the form of the outbreak of SARS in 2002/2003, to natural disasters such as the Southeast Asian Tsunami in 2004, the economic crisis in 2008/2009, the COVID-19 pandemic of 2020 or the more recent tragic events in Ukraine and Israel causing political as well as economic insecurities. Not only do such disturbances impose high risks for tourists, they moreover disrupt the tourism industry's growth, for which in particular political and economic stability, as well as safe travel conditions are of utmost importance (Perić et al., 2021, p. 2). Especially due to the "historical uniqueness" (Götz et al., 2020, p. 40) of the COVID-19 pandemic which unfolded in early 2020, such stability was no longer given, leading to a big crisis within the tourism sector.

In fact, the tourism industry plays a vital economic role for many countries. As a key economic sector, the industry constituted for 7% of global trade in the pre-pandemic year of 2019 (UNWTO, 2020). As the third-largest export category, the tourism industry has become one of the most affected industries throughout the pandemic (Dube, 2022, p. 1; Peluso & Pichi-erri, 2021, p. 2755; UNWTO, 2020). Soon after COVID-19 was declared a pandemic in March 2020 (Dube, 2022, p. 1; Steinhauser, 2023, p. 114), numerous travel warnings and bans all over the world followed, since travelling accounted for further spread of the deadly virus on a global scale (Bhati et al., 2020, p. 2088). Travelers on international trips were evacuated back to their home countries before air traffic came to an almost full stop, followed by nationwide lockdowns. People were urged to stay at home, work from home, and keep social distancing as a response to such yet unknown threat. Especially international travel has been highly impacted by the pandemic like never before (Kurniawati & Fyall, 2023, p. 84). While prior crises have also led to a decline in demand, which however only was limited in terms of time and volume, none of the earlier crises ever reached such level of global impact as the COVID-19 pandemic entailed for the industry (Steinhauser, 2023, p. 115).

With the near elimination of the international travel sector, domestic travel has become increasingly important for various tourism markets especially during the pandemic years (Dube, 2022, p. 1) and may have led to a change of preference among tourists (Zenker & Kock, 2020, p. 2). Within the German tourism market, such observation has been confirmed. In 2020, due to the pandemic circumstances, the country counted an increase of more than 4

million trips compared to 2019 (Steinhauser, 2023, p. 117) as the country's domestic tourism has increased to 45% in 2020 compared to 26% in 2019 (FUR, 2021, p. 5).

Pandemics, such as COVID-19, come along with risks and threats. Risk in the context of the tourism industry consists of the perception and experience a tourist encounters both, during the buying process of a touristic service as well as during the actual consumption of traveling services and those at the destination itself (Tsaur et al., 1997, pp. 796). The character of a global pandemic as a health risk generally enhances a tourist's perception of personal risk when travelling (Bhati et al., 2020, p. 2088). In that matter, despite individual perceptions of health-related risks among tourists, perceived risk is declared to be a driving factor on and major component within the destination decision-making of a tourist (Reisinger & Mavondo, 2005, p. 214) and respective travel behavior (Wong & Yeh, 2009, p. 7). Further influencing a tourist's decision-making process is personal safety. Lack of such is thought to be a severe barrier especially with regards to international tourism (Reisinger & Mavondo, 2005, p. 213).

In order to understand how tourists behave and deal with threatening situations, the Protection Motivation Theory (PMT) of Ronald Rogers (1975) becomes specifically relevant. His theory of disease prevention (Floyd et al., 2000, p. 407) consists of two mediating processes: threat appraisal, in which an individual evaluates threats on the basis of perceived severity and vulnerability, their extent and consequences and their likelihood of occurrence, as well as coping appraisal as the second process, which aids individuals choosing effective alternatives to cope with the threat. The outcome of such individual evaluation decides whether an individual is motivated to show adapted behavior to prevent threats or not, and is driven by various factors, such as experience, knowledge, socio-economic status, demographics, and culture.

Next to researching adaptive behavior among the study's respondents, the study further aims to analyze which effects travel-specific risks on international trips have on the travel behavior of German tourists in the context of domestic travel during a pandemic. With regards to the tourism industry, there are several travel-specific risks, of which financial risk, destination risk, travel risk, time risk, health risk, psychological risk and cultural risk are specifically relevant for this thesis' study.

The following sup-chapters will introduce the study's research objectives and questions

before shortly presenting the research context of tourism in Germany and its citizens' travel behavior, aiming at giving some cultural background information.

1.1 Research Objectives

Tourism in Germany is an important economic factor for the country that is home to nearly 84 million inhabitants, as it not only ensures growth but also employment among its population (BMWK, 2024b). In the pre-pandemic year of 2019, the country counted nearly 496 million overnight stays. Although Germany is among the top six travel destinations of European citizens (Eurostat, 2023), it is a quite popular travel destination particularly for Germans as well, being deemed again the number one destination among its citizens in 2023 (Stiftung für Zukunftsfragen, 2024). When worldwide travel restrictions were very present in the years of 2020 and 2021, Germans notably enjoyed travelling their own country.

COVID-19 heavily hit the tourism industry on a global scale and has become a threat to humans all over the world, limiting public life. With regards to travelling, the pandemic, as a period of anxiety, uncertainty and concerns about personal safety among the population, has added additional risk to tourism. Several travel bans, closed borders, as well as lower perceived risk levels and higher perceived security levels upon domestic travel, encouraged Germans to plan trips within their own borders.

The objective of this study is to research travel behavior and destination choice of German tourists during and after COVID-19 as a health-related risk, as such is important for the tourism industry to understand possible shifts in the tourists' preferences. The study aims to research German's travel behavior under COVID-19 restrictions and measures, which have not been experienced in such extent before and required Germans to adapt their lifestyles (González-Castro et al., 2021, p. 2). Risk perception plays a crucial role in the destination choice of tourists and acts as a decisive factor for whether tourists feel safe or unsafe upon travels. Investigating how they perceive travel specific-risks both on domestic and international travel and to what degree they adapt their travel behavior in response to a threat like COVID-19 due to individual's vulnerability and perceived severity, serves to analyze whether such time of uncertainty may act as a driver for domestic travel. Establishing domestic travel as a viable alternative for German tourists even after the pandemic is of utmost importance for the country due to the high economic impact of the tourism sector and as a learning for future periods of disruptions. This study further aims to examine the role of sociodemographic and touristic

characteristics on tourists' travel behavior, and contributes to the understanding as well as definition of possible trends in post-pandemic travel behavior, being specifically relevant for DMOs and policy makers to encourage German tourists to further engage in domestic travel.

1.2 Research Questions

Analyzing how German tourists have travelled in times of uncertainty and risk using the example of COVID-19 and investigating potential changes in their travel behavior, this thesis' research is built among three research questions.

The first research question relates to PMT of Ronald Rogers (1975). As a theory used to understand humans' response to threats and risks specifically in health-related contexts, the theory suggests that an individual's perception of the severity of and vulnerability to a threat or risk as well as one's faith in their own capability to effectively cope with such, influences an individual's motivation to protect itself. The theory involves threat appraisal and coping appraisal on which further behavior is based. Such behavior is either shown as maladaptive coping, during which an individual ignores the threat, or adaptive coping, in which an individual recognizes it and feels capable of responding accordingly. With regards to PMT, the study's first research question is "What is the relationship between adaptive behavior and domestic travel decisions during COVID-19?", which aims at researching whether adoption of adaptive behaviors, due to perceived vulnerability and severity of COVID-19 as a risk, influences the decision of a tourist to choose domestic travel over a trip abroad during the COVID-19 pandemic.

The second research question is called "What is the relationship between risk perception and domestic travel?". Risk perception in tourism is highly influenced by external shocks such as COVID-19 and acts as an important factor in the decision-making process of a tourist. Such perception is a very individual one and in fact depends on various dimensions, such as personal characteristics, travel experience, sociodemographic elements like age, gender, or monthly income. This research question concerns to what extent higher perceived travel-specific risks on international travel impact a German tourist's tendency towards domestic travel during COVID-19. In this context, the study aims to research the relationship of perceived travel-specific risk on domestic travel decision, as well as the influence of perceived financial risk and concerns, including inflation, has on domestic travel decisions.

The third research question addresses the relationship of touristic characteristics on domestic travel decision during COVID-19 and is called “How do tourists’ characteristics relate to domestic travel decisions?”, specifically aiming at investigating whether tourists’ prior travel experience, perceived vulnerability, income and age influence their preferred travel destination in a way affecting their willingness to engage in domestic tourism.

1.3 Research Context

Germany, a country located in the heart of Europe, offers endless possibilities for any type of vacation thanks to its diverse regions. Within its 16 federal states, Germany has the popular north and east sea region in the northern part, with Schleswig-Holstein being the second most visited state in 2023 (FUR, 2024, p. 6), while tourists in the southern part, such as the state of Bavaria, being German’s most visited state upon domestic travel (FUR, 2024, p. 6), may enjoy beautiful mountainscapes due to the country bordering Austria and Switzerland. Being rich in UNESCO world cultural heritages, tourists traveling in Germany are able to admire the high diversity among its 54 heritages, both in the heritage’s nature as well as their geographical distribution within the country (Unesco, 2024). Due to excellent infrastructure on both highways and railways, as well as various popular lakes across the country, Germany welcomes tourists from near and afar.

In fact, tourism and travel is an important factor and valuable good for all Germans alike. Despite an on-going pandemic, Germans did not want to fully give up traveling (FUR, 2021, p. 2). Such importance is underlined upon researching the consumption priorities of Germans within FUR’s travel analysis (2021, p. 11), in which 60% of the respondents rated traveling as the second most important consumer good, right behind food and ahead of housing and its facility. Although the number of travelers and respective travel activities have drastically decreased in the course of the pandemic, in 2023, the number of German travelers has reached more than 53 million (Destatis, 2024c) and more than 148 million domestic travels again (Destatis, 2024b). Tourism in Germany has generally become increasingly trendy for all travelers alike over the last years. The pre-pandemic year of 2019 accounted for more than 495 million overnight stays, deeming it the tenth record year in a row, out of which only nearly 90 million overnight stays are ascribed to international travelers (BMWK, 2024a). Such development shows the popularity of Germany as a travel destination among its own citizens. In fact, tourists in Germany spent almost €330 billion both

on leisure and business trips in 2019, out of which the vast majority of 84% was generated by domestic tourists (BMWK, 2024a).

Especially with many travel warnings and bans in place, domestic tourism in Germany has increased in importance and attractiveness during the pandemic years of 2020 and 2021. In fact, according to FUR's travel analysis of 2024, Germany's market share for domestic travel increased to 45% in 2020 (FUR, 2024, p. 14), which translates to nearly 23 million Germans deciding to travel domestically for trips of at least five days, indicating an increase of 4.1 million and a respective increase of market share of 19% compared to the previous year (FUR, 2021, p. 5). However, as part of FUR's more recent travel analysis (2024, p. 5), there is a downward trend of Germany's domestic tourism in the years after, reaching a low in 2023, in which the number of Germans travelling domestically for trips of at least 5 days dropped to 14.3 million.

Especially during the pandemic year of 2020, 66% of Germans adjusted their travel plans by changing their destination choice in response to the threat imposed by COVID-19 (FUR, 2021, p. 9). Such adjustment of planned travels in fact has become more frequent over the course of the pandemic (Neuburger & Egger, 2021a, p. 1011). In order to understand the findings of such high level of flexibility and adaptability, it is helpful to get an insight into German culture. The concept of culture does not only explain attitudes and values, but even more so strongly influences consumer behavior (Manrai & Manrai, 2011, p. 170; Solomon et al., 2006, p. 498). As an important factor defining such human behavior, national culture plays a vital role within the tourism industry as it influences tourists' behavior (Litvin et al., 2004, p. 29) and helps giving insights into respective expectations and needs (Reisinger, 2009, p. xvii).

Solomon et al. (2006, pp. 498) define culture as "the accumulation of shared meanings, rituals, norms and traditions among members of an organization or society", while Hofstede et al. (2010, p. 6) define culture as "the collective programming of the mind which distinguished the members of one group or category of people from others". In order to understand German tourists' travel behavior, Hofstede's concept of cultural dimensions (1980), becomes relevant, as it creates an understanding of cross-cultural differences in the behavior of human beings. Although initially serving cultural behaviors and patterns within the workplace, this framework has become a commonly used framework within the

tourism industry as well (Søndergaard, 1994, p. 453), as it is used to understand the effect of culture on tourists' behavior (Reisinger & Mavondo, 2006, p. 18).

Based on their national culture, Germans have adhered to COVID-19 measures by preferring to adapt to prevailing circumstances (FUR, 2021, p. 9). Such behavior is in line with Germany's high uncertainty avoidance as part of Hofstede's concept of cultural dimensions. Along with such high degree of uncertainty avoidance, their need for safety is high. In fact, as a result of the coronavirus pandemic, safety has become a new basic requirement for travels in the post-pandemic travel behavior of German tourists (Stiftung für Zukunftsfragen, 2023, p. 20). As part of their culture, Germans practice a lot of internal control by adhering through existing rules and laws. Indeed, such structures given by rules are appreciated and strictly followed by Germans (ICU, 2014, p. 12). Overall, due to in such extent never before experienced COVID-19 measures and restrictions, Germans were forced to adapt their lifestyles (González-Castro et al., 2021, p. 2) which ultimately impacted their travel behavior during and after the coronavirus pandemic. Such change of long-term consumer behavior is bound to lead to the trend of moving from mass tourism to more sustainable and nature-based tourism (Stiftung für Zukunftsfragen, 2023, p. 21).

2 LITERATURE REVIEW

2.1 Protection Motivation Theory

Protection Motivation Theory, an affective and cognitive framework first introduced by Rogers (1975) in the seventies, aims to predict health-related behavior and its adoption (Arroyo & Solís, 2021, p. 31; Rather, 2021, p. 2). The model was initially developed to examine how fear appeals affect an individual's behavior and attitude (Rogers, 1975, p. 93) by influencing the development of a protection motivation and aims to describe parameters predicting such protective behaviors regarding health-related risks (Bhati et al., 2021, p. 2089; Janmaimool, 2017, p. 4; Zhou et al., 2022, p. 2). Rogers (1975, p. 94) argues that such protection motivation is mainly influenced by three factors: that of the extent and consequences of a threat, the likelihood of occurrence as well as effectiveness of recommended responses.

The model was revised (Maddux & Rogers, 1983) understanding that individuals react by committing to preventive behavior in order to keep away from threats (Bhati et al., 2021, p. 2089) and helps explaining the way individuals behave and deal with threatening situations (Lahiri et al., 2021, p. 2). The more severe individuals perceive a threat, and the more vulnerable they feel to it, the more do individuals initiate adaptive behavior (Floyd et al., 2000, p. 407). According to the revised PMT, such behavior is driven by two cognitive processes: threat appraisal and coping appraisal, which are influenced by culture, prior experience and knowledge, as well as demographics and socio-economic status, whose outcome is decisive for whether an individual is motivated to show protective behavior or not (Rogers, 1983, p. 154). According to Roger's model, appraisal processes in the form of an individual's engagement to apply health-protective behaviors, depend on the four elementary perceptions of the 1) severity of threat situation, 2) the individual vulnerability to the threat, 3) the efficacy of coping behavior as a response, and 4) the self-efficacy in implementing risk-reducing behavior (Maddux & Rogers, 1983, p. 470; Rogers, 1983, p. 153).

Threat appraisal, as an assessment of the threat, its severity and degree of an individual susceptibility itself (Rogers, 1983, p. 169) by disregarding any perceived positive aspects of such threatening situation, measures risk on the basis of perceived severity and perceived vulnerability (Çınar et al., 2022, p. 6; Floyd et al., 2000, p. 410; Lahiri et al., 2021, p. 2). While perceived severity describes an individual's acceptance of the threat's degree and its following

impact (Milne et al., 2000, p. 108; Rosi et al., 2021, p. 1), perceived vulnerability refers to an individual's perception of the occurrence of a threat (Shah Alam et al., 2023, p. 934). Both, highly perceived vulnerability and highly perceived severity, are deemed to encourage protective motivation (Shah Alam et al., 2023, p. 935) by not choosing the maladaptive response. Threat appraisal as the first process aims to describe the upcoming damage an individual would perceive by not taking any preventive measures (Çınar et al., 2022, p. 6) and consequently evaluates maladaptive coping (Floyd et al., 2000, p. 410).

Coping appraisal as the second process, addresses the individual assessment of one's ability and response in taking action that prevents or overcomes perceived threat (Rogers, 1983, p. 169) in order to manage risk and decrease perceived threat (Fuchs et al., 2012, p. 134; Lahiri et al., 2021, p. 2; Shah Alam et al., 2023, p. 935). As part of this process, individuals compare costs of taking preventive measures with the benefit they expect of taking such preventive measure (Floyd et al., 2000, p. 408). This process of coping alternatives involves three key subcomponents which influence change in behavior: response efficacy concerning the perceived effectiveness a preventive behavior entails, self-efficacy as an evaluation of one's ability to adapt such preventive behavior (Floyd et al., 2000, p. 411), and response cost which concerns any sort of cost that such adaptive coping brings along (Floyd et al., 2000, p. 411; Rogers, 1983, p. 169). While response efficacy and self-efficacy positively impact individuals to incorporate adaptive behavior, response cost will rather stop them from doing so (Floyd et al., 2000, p. 411).

Both processes and their elements have been proven to be significant for the prediction of health-related behaviors (Bhati et al., 2021, p. 2089). Depending on the individual outcome of these assessments, a varying degree of protective motivation will be developed (Fuchs et al., 2012, p. 134) – in the form of maladaptive or adaptive behavior (Shah Alam et al., 2023, p. 937) as illustrated by Figure 1.

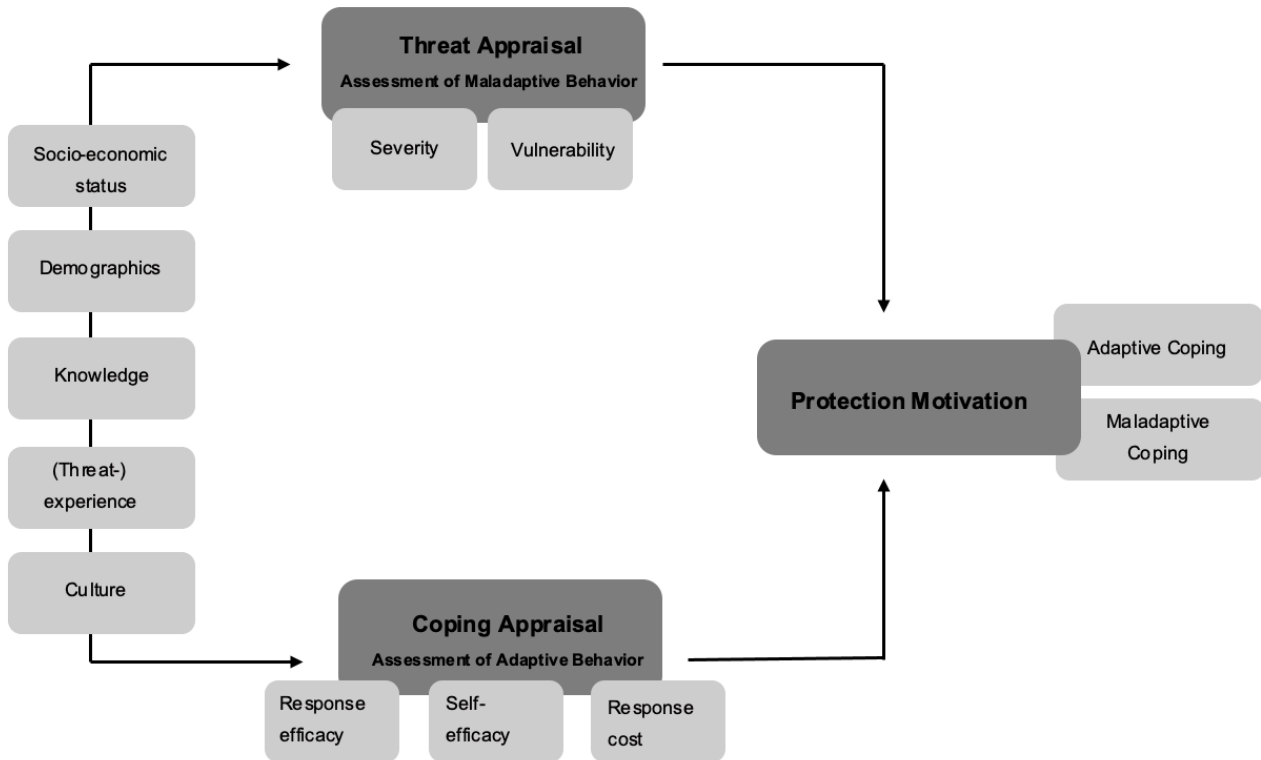


Figure 1. Protection Motivation Theory (own illustration based on Floyd et al., 2000, p. 410)

Applying this socio-cognitive model to the tourism sector, it assists to comprehend individuals' protective motivation (Zhou et al., 2022, p. 2) and psychological characteristics linked to post-pandemic changes in travel behavior (Çınar et al., 2022, p. 2). Within the PMT framework, individual images of safety and risk a tourist has from specific destinations or prior travel experience may influence a tourist's future travel behavior (Sönmez & Graefe, 1998a, p. 171). Consequently, PMT's threat and coping appraisal play a vital role in the context of travelling during the COVID-19 pandemic, as individuals firstly evaluate potential risk before assessing their protective behavior's effectiveness (Shah Alam et al., 2023, p. 933).

In the context of this thesis' topic of risk perception, maladaptive behavior could be understood as travelling internationally despite a threatening situation such as the COVID-19 pandemic, while individuals motivated to show protective behavior would adapt by only travelling domestically, or choose to travel not at all.

2.2 Risk Theory

2.2.1 Risk Definition

Over the last 22 years, the tourism industry was subject to various crises: the terrorist attacks of 9/11, the outbreak of SARS, the economic crisis of 2008/2009, the MERS outbreak and not least the outbreak of COVID-19 (Gössling et al., 2021, p. 3) next to recent economic and political crises which have shaken up the world tourism industry (Perić et al., 2021, p. 2). Being “highly reactive to unexpected critical events” (Hajibaba et al., 2015, p. 46), the coronavirus pandemic proved the industry not to be fully resilient to such external threats and has impacted the whole sector in a way never experienced before by causing uncertainty and risk (Foroudi et al., 2021, p. 1).

While risk in general may be defined as “a possibility of danger, harm or loss; and a chance or hazard” (Reisinger & Mavondo, 2006, p. 13), with regards to the tourism industry, Law (2006, p. 290) defines it as “shocks, threats and disasters that can negatively impact the tourism industry”. According to the World Health Organization (World Health Organization, 2012, p. 2), risk levels differ depending on the travel purpose, tourist characteristics, behavior and health, housing standards, hygiene conditions and those predominating within the destination and season itself.

Based on existing literature, there are three risk types: objective risk, actual risk as well as perceived risk (Seabra et al., 2013, p. 503). Since perceived risk highly influences human behavior, it is specifically relevant (Bauer, 2000, p. 14) and due to the broad spectrum of perceived risk, imposes a major task for the tourism industry (Perić et al., 2021, p. 4). With regards to travel, there are several specifically influential risk types. Next to natural disasters (Park & Reisinger, 2010, p. 2), political instability (Balli et al., 2019, p. 2), terrorism (Walters et al., 2019, p. 371) and criminality (Giusti & Raya, 2019, p. 101), health risks (Chien et al., 2017, p. 2) play a vital role in influencing destination choice (Karl et al., 2020, p. 2; Mäser & Weiermair, 1998, p. 109).

2.2.2 Travel-Specific Risk Types

Risk has been shown to be a multidimensional phenomenon within the tourism literature (Chien et al., 2017, p. 1; Kurniawati & Fyall, 2023, p. 84). Different researchers favor different risk dimensions, mainly comprising of five to seven risk types, including equipment risk, financial risk, physical risk, psychological risk, satisfaction risk, social risk, performance and time risk (Fuchs & Reichel, 2011, p. 267). These risk types may vary in the impact they have on behavioral intention (Jiang et al., 2022, p. 2), importance and sensitivity between tourists depending on their travel situation and individual characteristics (Reisinger & Mavondo, 2006, p. 17). However, since studies on risk perception differ from one tourism researcher to the next, different scales with varying risk typologies and attributes exist (Perpiña et al., 2017, pp. 106).

With regards to the tourism industry, those dimensions have been widened and adapted since next to the seven consumer risk dimensions mentioned, tourism is further impacted by weather conditions, natural disasters, health concerns like diseases, political instabilities, or local crime rates (Perpiña et al., 2017, p. 107). In order to incorporate such travel-related risks into consumer risks, for this thesis' study, the five risk dimensions of an analysis of Perić et al. (2021, p. 8) are inherited, defining the perceived travel risk categories of health risk, psychological risk, financial risk, destination risk and travel risk, and are extended by cultural and time risk, which will be further defined in the following:

Health Risk refers to the potential of getting ill or catching an infectious disease during travel or at the destination itself (Chien et al., 2017, p. 2; Park & Reisinger, 2010, p. 4). Health risk may further involve physical danger or injury while travelling to a specific destination (Roehl & Fesenmaier, 1992, p. 18). In order to counteract health risk, individuals may show health behavior. WHO's health promotion glossary (2021, p. 17) defines health behavior as follows:

“Any activity undertaken by an individual for the purpose of promoting, protecting, maintaining or regaining health, whether or not such behavior is objectively effective towards that end.”

Psychological risk addresses how a purchasing decision may influence the way an individual thinks of himself (Seabra et al., 2013, p. 503), and includes the potential that a travel experience does not correspond to an individual's personality or self-image (Park & Reisinger, 2010, p. 5; Roehl & Fesenmaier, 1992, p. 18). Besides the damaging self-image,

psychological risk also consists of the risk that a trip sheds a bad light on one's personality (Reisinger & Mavondo, 2005, p. 213).

Financial risk is defined as the risk of a purchase not offering the hoped value for the paid money (Roehl & Fesenmaier, 1992, p. 18), or even the waste of money if travel expectations remain unfulfilled (Park & Reisinger, 2010, p. 4). It further deals with the risk of additional unforeseen costs (Perić et al., 2021, p. 8) and is specifically important to the younger generation tourists (Cui et al., 2016, p. 651). With regards to the current economic situation, inflation may act as a part of financial risk, as financial risk involves the worry of travel affecting one's financial situation (Perić et al., 2021, p. 10).

Destination risk may be any potential negative situation and local risk at the destination itself, such as prevailing transportation infrastructure and safety, weather conditions, crime rates and public security, or political unrests (Tsaur et al., 1997, pp. 797).

Travel risk mainly concerns general risks being encountered during the travel itself to and from a destination, such as the mode of transportation or the type of travel organization (Karl & Schmude, 2017, p. 140) in the sense of individual trip versus organized group travel (Perić et al., 2021, p. 10).

Cultural risk includes the exposure to language barriers, cultural differences and resulting misunderstanding (Park & Reisinger, 2010, p. 4).

Time risk refers to the failure of performing timely, and losing or wasting time during travel (Fuchs & Reichel, 2011, p. 267), i.e. due to time consuming tourism activities like check-ins or schedule delays (Cui et al., 2016, pp. 649), and is specifically relevant for middle-aged tourists (Cui et al., 2016, p. 651).

The framework of this thesis aims to analyze which effects those travel-specific risks on international travel have on the travel behavior of German tourists in the context of domestic travel during a pandemic.

2.2.3 Risk Perception in Tourism

The tourism industry is characterized by high volatility. It is highly impacted by external shocks and crises, such as the COVID-19 pandemic. Every crisis involves fear, insecurity and risk. Consequently, for the future tourism industry, it is of utmost importance to fully comprehend how tourists perceive and respond to risk (Karl et al., 2020, p. 1), well noting that the concept of perceived risk is subjective and individual (Dickson & Dolnicar, 2004, p. 9).

Especially recently, in times of a global pandemic, Bauer's concept of risk perception from 1967 has been recognized as a solid theory describing tourists' attitudes and behavior (Zhou et al., 2022, p. 3). Showing that each consumption brings along uncertainty, Bauer (2000, p. 14) explains how consumer behavior is determined by risk.

Perceived risks have initially been defined in relation with consumer behavior. Within the research of risk, there are various definitions for perceived risk (Wolff et al., 2019, p. 1). Expected utility theories both in the economic and psychologic field determine perceived risk as a result from people's subjective evaluation of the severity and chances of negative outcomes (Loewenstein et al., 2001, p. 277). In the context of tourism, perceived risk is understood as the possibility of occurrence of an unfavorable situation concerning a traveler's safety (Chien et al., 2017, p. 2) and is defined as a traveler's individual perception of uncertainty as well as potential negative experience upon travelling to or staying at its travel destination (Tsaur et al., 1997, p. 798).

Perceived risk in the tourism industry plays a vital role as it highly impacts the degree of protective behavior individuals adapt (Lifshitz et al., 2023, p. 793), as risk perception is shown to be positively linked to preventive health behaviors (Arroyo & Solís, 2021, p. 31).

Due to the intangible and perishable nature of the tourism product, each travel and holiday is a risk itself (Sirakaya & Woodside, 2005, p. 816; Yang & Nair, 2014, p. 240). Besides potentially severely impacting a destination's economy (Lepp & Gibson, 2003, p. 620), perceived travel risk is an important factor in the decision-making process of a tourist towards or against a destination and is likely to affect tourists' destination image (Law, 2006, p. 290) as well as travel decisions (Law, 2006, p. 290; Sönmez & Graefe, 1998a, p. 171).

Depending on the individual's evaluation of the severity, risk perception differs among individuals depending on tourists' characteristics and past travel experience (Karl et al., 2020, p. 1; Lepp & Gibson, 2003, pp. 617; Sönmez & Graefe, 1998a, p. 171), sociodemographic elements like age, gender, educational level (Karl, 2018, p. 131), monthly income (Sönmez & Graefe, 1998b, p. 126), social or cultural components (Kozak et al., 2007, pp. 235; Sjöberg et al., 2004, p. 10) as well as the kind of risk type perceived. The development of risk perception in tourism is further influenced by media coverage (Chew & Jahari, 2014, p. 384; Žuromskaitė et al., 2018, p. 266) as well as information and opinions from a tourist's circle of friends (Karl, 2018, p. 131).

Risk perception is highly influenced by individual characteristics of tourists. Interestingly, according to existing literature, especially gender seems to play a significant role when it comes to risk perception and risk-taking actions. According to an analysis of Byrnes et al. (Byrnes et al., 1999, p. 377), there is an unambiguous difference in risk-taking behavior between males and females. Such behavior is characterized by male individuals tending to undervalue the chance of potential unfavorable consequence (Kim et al., 2018, p. 54).

Males, in fact, seem to be more risk-taking than females, as women rather overvalue the chance of unfavorable consequence, which leads them to be more likely to adopt behaviors deemed as less risky (Ferrín, 2022, p. 32; Kim et al., 2018, pp. 54). Another touristic characteristic influencing the degree of individual's risk perception, especially regarding health risks, is age (Kim et al., 2018, p. 54). Within their study, Kim et al. (2018, pp. 56) found that older participants perceived health risks to be evidently more serious than younger participants did, which they explain due to the higher probability of occurring health issues among older aged individuals.

2.2.4 Vacation Decision-Making Under Risk

Risk may highly influence decision-making (Sönmez & Graefe, 1998a, p. 171). As pandemics have become more frequent in the past – however none of them ever having extensive dimensions such as the coronavirus pandemic – they impose a risk to tourists, and consequently may negatively impact the individual perception of travel destinations (Perić et al., 2021, p. 2). Especially with regards to tourism, a variety of factors have been defined to influence the decision-making of tourists (Karl et al., 2020, p. 1). Among them are personality

characteristics (Lo et al., 2011, p. 828), past travel experience and knowledge (Sharifpour et al., 2014, p. 118).

Tourists' decision-making has been subject to numerous researches. Past researches introduced general concepts in the form of microeconomic, cognitive, and interpretive models (Decrop, 2006, p. 23). While microeconomic concepts explain touristic behavior under use of traditional demand theory by portraying a rational tourist who aims to maximize the utility of his decisions within the limitations of his budget, cognitive concepts focus on mental and socio-psychological processes involved in a traveler's decision making (Decrop, 2006, p. 28). While both, microeconomic and cognitive models rather engage with how a traveler should make decisions, interpretive models on the other hand deal with how travelers in fact make decisions (Decrop, 2006, pp. 23).

In a study on decision-making in context to perceived risk, Mäser and Weiermair (1998, p. 113) found that the higher the perceived risk, the more do tourists intensify their information seeking in an attempt to reduce uncertainty and risk, enabling their decision-making to be more rational. This is confirmed by regulatory focus theory claiming consumers to decide rationally in times of uncertainty, to prevent any risky consumer behavior (Jiang et al., 2022, p. 6). A tourist who perceives potential risks to predominate over the destination's benefits, will likely change his travel plans (Law, 2006, p. 290). Consequently, perceived risk acts as a crucial determinant in the decision-making and destination selection process of a tourist (Chew & Jahari, 2014, p. 382; Giusti & Raya, 2019, p. 102).

3 DATA AND METHODOLOGY

3.1 Quantitative Approach

In order to investigate what impact adaptive behavior, risk perception and tourists' characteristics have on travel decision and respective travel behavior in times of and after COVID-19, an empirical study addressed at German tourists is conducted. Such study follows a quantitative research design using an online survey in order to test the in advance defined hypotheses. Using a quantitative research method involves collecting numerical data in order to test hypotheses and analyze relationships between variables. According to Saunders et al. (2023, p. 156), such method, in which first the study is being prepared before data is collected and analyzed, is deductive. By collecting primary data which is explicitly collected for a specific research, the deductive approach enables to evaluate defined hypotheses by the use of such collected primary data (Saunders et al., 2023, p. 155).

Contrary to the qualitative approach, a quantitative research method aims at delivering not only precise but also representative numerical data which ultimately facilitate statistical evaluation through using statistical software programs such as SPSS (Queirós et al., 2017, pp. 369), and has become increasingly relevant in business fields and social sciences (Aithal & Aithal, 2020, p. 234).

As part of one of the most frequently used research techniques within the quantitative approach (Aithal & Aithal, 2020, p. 234), provided questions of a survey help collecting the respondents' attitudes, perceptions or behavior patterns (Queirós et al., 2017, p. 381). While being deemed as a low cost method of collecting data, a survey's reliability strongly depends on its structure and the level of precision by the provided answers (Queirós et al., 2017, pp. 381).

Such quantitative study approach was selected for this study, as it is particularly suitable for the area researched. Aiming to understand behaviors and patterns of German tourists as the researched group in the years of 2020 to 2023, a quantitative study approach enables to use gathered knowledge in defining patterns and further drawing general conclusions as well as making predictions about future behavior on larger groups (Holton & Burnett, 2005, p. 30).

3.2 Hypotheses Development

This research is built upon three thematic contents: Hypothesis 1 concerns PMT, Hypothesis 2 deals with risk perception on international travel while Hypothesis 3 investigates the effect tourists' characteristics have on destination choice.

The first hypothesis is related to Roger's PMT (1975). The theory assumes that as part of a cognitive process, individuals assess risk on the basis of perceived severity and perceived vulnerability. In a second process, they assess their ability as well as response in taking action that prevents or even overcomes perceived threat. Depending on their individual assessment, they either show adaptive or maladaptive behavior. In the context of this study, the author assumes that German tourists showing adaptive behaviors, such as following recommended health guidelines and taking precautionary measures, are more likely to travel domestically during COVID-19 compared to tourists showing maladaptive behavior. Hence, the first hypothesis is: "Adaptive behavior positively correlates with domestic travel decision during COVID-19".

The second hypothesis relates to risk theory and the perception of risks within the tourism sector. In the context of the tourism sector, COVID-19 has to be understood as an external threat imposing different levels of risks on tourists depending on their travel purpose, health and individual characteristics. Thus, researching the influence of risk perception, being highly subjective and individual (Dickson & Dolnicar, 2004, p. 9) on destination choice during such uncertain times, is vital to understand tourists' travel behavior and to make assumptions of future travel behavior. Consequently, H2 suggests that German tourists perceive travelling within the country to be less risky than they perceive travelling outside their home country to be. As risk perception acts as a key factor within the destination decision-making process (Sönmez & Graefe, 1998a, p. 171), this hypothesis suggests that German tourists opt for a domestic vacation decision due to lower perceived risk levels upon domestic travels. Based on such assumption, the second hypothesis is divided into two sub-hypotheses. Hypothesis 2a is called "Perceived travel-specific risks on international travel positively correlates with domestic travel decision during COVID-19". This hypothesis assumes that German tourists who perceive international travel to be higher in risks are more likely to travel domestically instead as a safer alternative during the pandemic. In line with existing literature, it is further assumed that gender and age affect the level of risk perception among tourists. Hypothesis 2b is called "Perceived financial risk on international travel positively correlates with domestic

travel decision during COVID-19”, suggesting that tourists perceive higher financial risks on international travel compared to domestic travel, and thus are more likely to travel domestically in order to reduce the potential loss of money or unforeseen expenses. Consequently, Hypothesis 2b implies financial risks to play a crucial role in terms of tourists’ travel decision during uncertain times like a pandemic.

The third hypothesis is related to the impact of individual characteristics on tourists’ destination decision-making. Such influence is important to investigate, as according to Jiang et al. (2022, p. 2), characteristics play a vital role in the context of behavioral intention, while Reisinger & Mavondo (2006, p. 17) argue that they also affect importance and sensitivity of risks. Hence, Hypothesis 3a is called “Travel experience negatively correlates with domestic travel decision during COVID-19” and assumes that German tourists who have extensive travel experience, especially on international travels, tend to still favor international trips over domestic ones, even in times of a pandemic due to their acquired expertise. Hypothesis 3b assumes that “Perceived vulnerability positively correlates with domestic travel during COVID-19” and suggests that German tourists who feel generally vulnerable are more likely to adapt their travel behavior by engaging in domestic travel rather than international travel during COVID-19. Hypothesis 3c is called “Income negatively correlates with domestic travel during COVID-19”, suspecting that Germans having more money at their disposal, perceive financial risks less severe as they are less affected by financial concerns or inflation, and generally prefer to travel outside of their home country. Hypothesis 3d assumes that “Age positively correlates with domestic travel decision during COVID-19”, as older people are more prone to any sort of illness and thus might feel more vulnerable in times of a global pandemic. Such hypothesis builds on existing literature (Reisinger & Mavondo, 2005, p. 213) on how personal safety influences the decision-making process especially for international travels, and thus suggests that elderly feel more safe travelling within their country’s own borders during uncertain times like a pandemic, and thus opt for domestic travel rather than international.

3.3 Survey Development

Aiming at analyzing the importance of domestic travel for German tourists during and after the COVID-19 pandemic, the survey was only to be completed by German citizens over the

age of 17 years. In order to do so, a self-administered survey of solely mandatory questions has been designed.

With regards to the study's objectives, two types of data have been collected over the course of the survey. For once, factual data such as socio-demographic data and behavior, as well as attitudes, such as judgements or personal opinions. Within the survey, there were different question types, which were designed as close-ended ones, including both single response and multiple response multiple choice questions, discrete ones offering answer options of yes and no, as well as rating scale questions, especially being used for questions targeting attitudes of the respondents.

The survey was divided into five sections as shown below:

1. Section A: Demographic profile of the participants
2. Section B: Travel behavior of German tourists
3. Section C: Risk perception upon travelling
4. Section D: Perceived vulnerability
5. Section E: Adaptive behavior

In order to measure adaptive behavior, risk perception and vulnerability of the respondents, existing literature in the respective fields was reviewed which enabled a suitable selection of relevant items to be used in the survey. With regard to how personal characteristics and socio-demographic variables impact the destination choice of German tourists, the first part of the survey researched demographic data, delivering information about the respondents' gender, age, state residency, level of education, and monthly income. Within the survey's next section, the respondents' travel behavior was analyzed by researching their general travel budget and their budget with regards to price increases due to high inflation volumes, their travel frequency in general and for domestic trips, their destination preferences and potential shifts in those during COVID-19. This part of the survey further examined the level of international travel experience and researched destination choice in the years of 2020 to 2023. With regard to risk perception and its effect on the respondents' travel behavior, existing literature (Perić et al., 2021, p. 8) helped identifying seven travel-specific risks which the respondents were asked to rate in view of presence for both domestic trips and international trips (1 = not present at all; 5 = extremely present), as well as in view of threat level and influence on individual travel behavior on a 5-point Likert scale. To measure vulnerability, a set of questions

assessed the respondents' individually perceived level of vulnerability and severity of COVID-19. In order to research adaptive behavior, the respondents were given seven statements to which they were asked to indicate their degree of approval in order to measure adaptive behavior as a variable. These seven items researched changes in travel frequency, type of transport, activities, information and adoption of local hygiene and safety measures.

3.4 Data Collection

The data collection, deemed as a research project's core component (Bryman & Bell, 2015, p. 12), was conducted through a self-administered online survey consisting of 35 mandatory and two branch questions. Due to the mandatory character of questions, there were no missing values to be documented. The complete questionnaire can be found in Appendix 1. When opening the online survey, the participants were presented the survey's landing page which included the intent of the study, the guarantee of anonymity, and the intention to publish the results as part of the thesis.

In order to analyze this thesis' research objectives, a study on the topic of potential changes and trends in the travel behavior and intention towards domestic travels during and after a crisis like the COVID-19 pandemic of German tourists with regards to risk perception, vulnerability and adaptive behavior is conducted. Following a quantitative, experimental research design to test the mentioned hypotheses, an online survey is used to reach German citizens of different education, age, residence, income and travel experience. This survey was designed with SeAMK's online survey tool 'webropol'. In order to test the comprehensibility and clarity of the survey's questions and remove any potentially occurring ambiguities, the survey was reviewed by N = 5 participants. Such reviewing from the same population as the final survey enabled the author to receive direct feedback and suggestions which were ultimately implemented to improve the type of questions for clarity reasons. The study's data was collected within a period of three weeks (from April 2, 2024 to April 23, 2024). For the study, a number of N = 200 respondents was targeted. This objective was achieved with the final sample consisting of 204 respondents (129 female and 75 male) that were reached through multiple social media channels, such as Facebook, WhatsApp, Instagram, E-Mail, as well as personally distributing printed QR codes leading to the online survey.

3.5 Analyses Methods

All statistical analyses of this study were carried out with IBM SPSS Statistics Version 29 and can be found in Appendix 2, 3 and 4.

As part of examining the relationships between items used for designing and consequently measuring constructs, factor analyses are used. Such analyses determines factor loadings, which indicate relationships between the considered items and factors that are measured (Yang, 2005, p. 183). Factor analyses further allow items measuring the same object to be combined into scales (Holton & Burnett, 2005, p. 36). By doing so, the number of items is reduced in order for easier management of them (Burnette & Williams, 2005, p. 145). Internal consistency is tested by calculating Cronbach's Alpha (α) to identify selected items' reliability. By calculating the inter-correlation of items, such value of Cronbach's Alpha varies between 0 (no internal consistency) to 1 (Aithal & Aithal, 2020, p. 240). The closer Cronbach's alpha gets to 1, the more interrelated items of the survey are with each other. Tavakol & Dennick (2011, p. 54) regard Cronbach's Alpha of at least 0.7 as an adequate value for internal consistency. In order to identify if there are any relationships between two variables, correlational analyses are conducted, which aim at identifying the degree of relation between the analyzed variables, by also indicating strength and direction of such relationship (Holton & Burnett, 2005, p. 40; Queirós et al., 2017, p. 381). Such correlation results are confirmed by using crosstabs and Chi-square statistics. Independent samples t-tests are conducted to further research the roles of gender and age. Such testing allows conclusions to be drawn towards differences between gender and age groups by calculating and comparing mean values between two groups (Holton & Burnett, 2005, p. 39) as well as measuring statistical relevance of possible differences.

4 PRESENTATION AND ANALYSIS OF THE RESULTS

4.1 Basic Frequencies

To get an overview and understanding of the involved respondents of this thesis' study, the collected socio-demographic data will be presented, including key factors such as gender, age, education, and income by using descriptive statistics.

As part of the study's first question, respondents were asked to state their gender. Figure 2 presents the gender distribution, illustrating that of the 204 respondents, 129 (63.2%) were female and 75 (36.8%) were male, whereas the gender option diverse was not selected by any of the respondents.

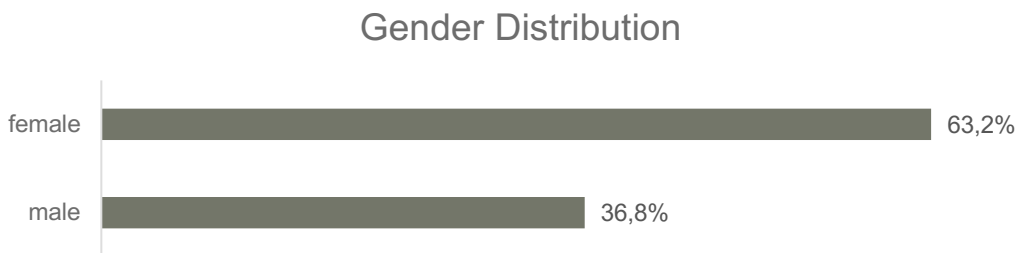


Figure 2. Respondents' Gender Distribution

Within the study's following question, respondents were asked to indicate their age within seven age groups. These age groups started from 17 to 25 years to 76 years and older. Figure 3 illustrates the respondents' age and respective gender distribution. The most frequently selected age group of 26 to 35 years old respondents made up 29.9% of all respondents. The second most frequently selected age group, that of 56- to 65-year-old respondents, accounted for 17.1%, followed by those of 66- to 75-years old accounting for 16.2%. 11.8% reported to be aged between 46 to 55 years, shortly followed by those being 17 to 25 years old which made up 11.3%, and those of age 36 to 45 years accounting for 10.8%. The least selected age group of respondents being 76 years and older accounted for 2.9%. Upon researching the age distribution among the respondents' gender, male respondents ($M = 4.32$, $SD = 1.77$) on average were older than female respondents ($M = 3.09$, $SD = 1.64$).

Age and Gender Distribution

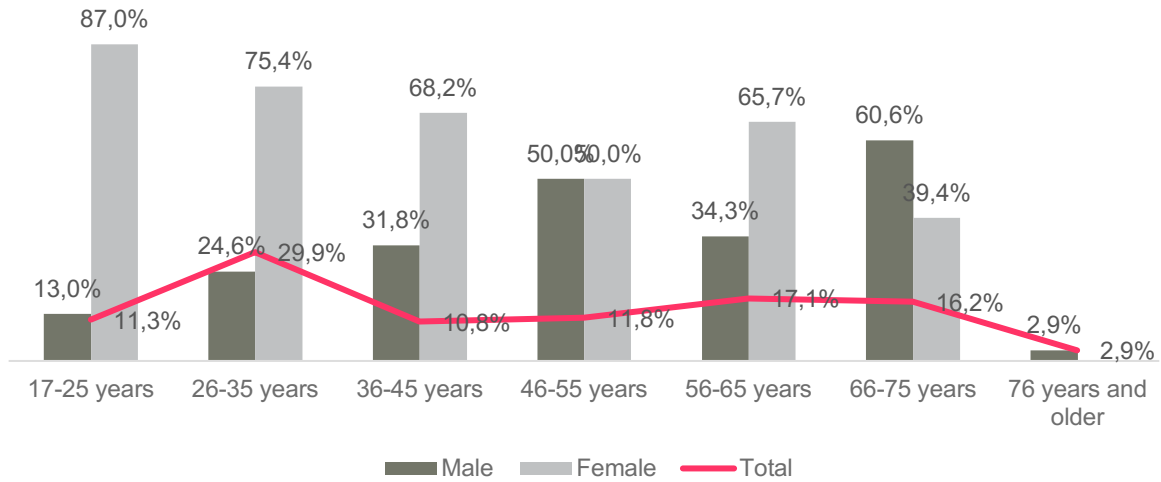


Figure 3. Respondents' Age and Gender Distribution

Figure 4 presents the respondents' highest completed education level, showing that the majority (59.8%) indicated to hold a university degree (bachelor, diploma, or state examination), while 17.6% of the respondents completed vocational training or an apprenticeship, 14.2% indicated to have finished their high school degree. Furthermore, 6.9% of the respondents have received their secondary school leaving certificate, while the minority of respondents is built by those 1.5% holding a doctorate certificate.

Education Levels

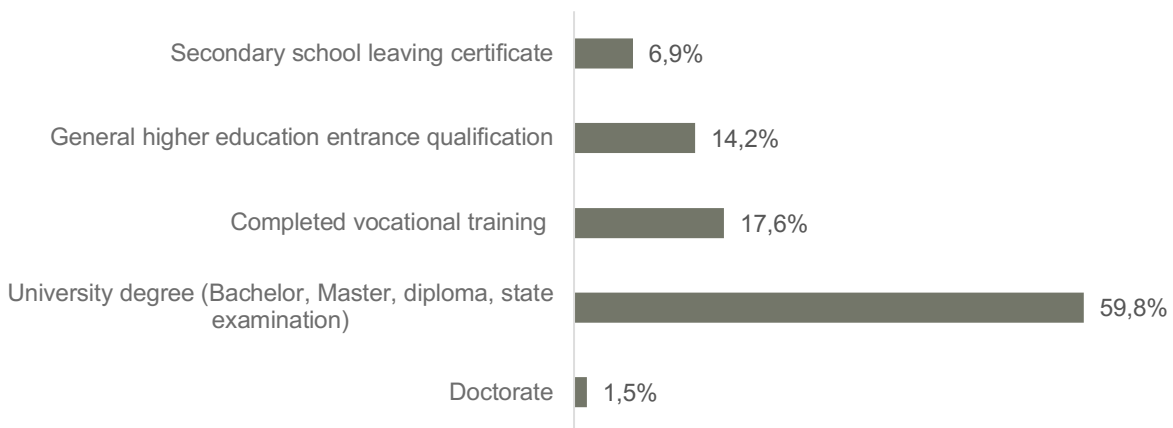


Figure 4. Respondents' Education Levels

In terms of monthly gross income, as illustrated by Figure 5, 19.6% of the respondents reported an income of 4000 to 5000€ as well as 2000 to 3000€, followed by 19.1% of the respondents indicating an income of more than 5000€. In each case, 17.2% of the respondents stated an income of between 3000 to 4000€ as well as 1000 to 2000€, followed by 7.3% of the respondents indicating a monthly gross income of less than 1000€.

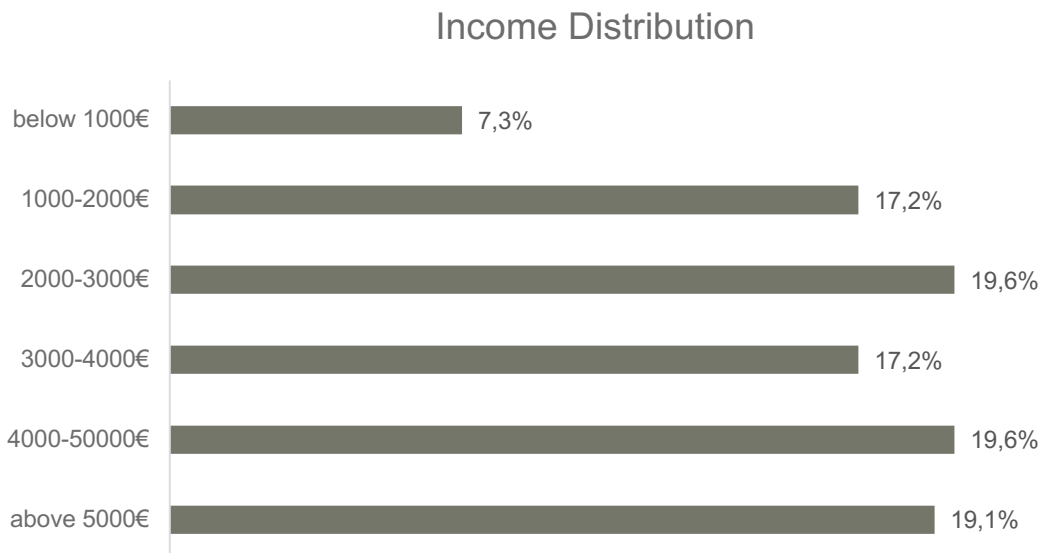


Figure 5. Respondents' Income Distribution

Table 1 summarizes the respondents' vacation behavior, which includes the frequency of vacations, travel budget, the impact of on-going inflation on their travel frequency and budget, as well as general destination preference and potential shifts in preference. Interestingly, inflation does not play such a significant role in the context of travel budget, as the majority of respondents (56.4%) claimed their budget to have remained on the same level as pre-inflation prices, while more than 25% even stated it to be higher and only around 18% claimed it to be lower than before inflation. Similar behavior is noted with regards to the role of inflation on travel frequency: 73% of the respondents plan the same amount of travel activities as before inflation, while 24% plan fewer trips and 3% even plan more trips than they did before inflation rose.

With regards to destination choice, Table 1 further indicates that a clear majority of 150 respondents (73.5%) generally favor international trips over domestic ones. Such destination preference has changed for 59.3% of the 150 respondents which generally preferred

travelling across borders due to prevailing travel warnings and restrictions, as they claimed to have felt more save travelling within borders during the pandemic years of 2020 and 2021.

Table 1. Respondents' Vacation Behavior

| | N | % |
|--|-----|------|
| YEARLY VACATIONS | 204 | 100 |
| 0 | 2 | 1.0 |
| 1 TO 2 | 125 | 61.3 |
| 3 TO 4 | 63 | 30.9 |
| MORE THAN 4 | 14 | 6.8 |
| DOMESTIC TRIPS | 204 | 100 |
| 0 | 54 | 26.5 |
| 1 | 95 | 46.6 |
| 2 | 46 | 22.5 |
| 3 | 7 | 3.4 |
| 4 | 2 | 1.0 |
| GENERAL TRAVEL BUDGET | 204 | 100 |
| <1000€ | 23 | 11.3 |
| 1000 - 2000€ | 73 | 35.8 |
| 2000 – 3000€ | 108 | 52.9 |
| TRAVEL BUDGET UNDER INFLATION | 204 | 100 |
| HIGHER BUDGET | 52 | 25.5 |
| SAME LEVEL | 115 | 56.4 |
| LOWER BUDGET | 37 | 18.1 |
| TRAVEL FREQUENCY UNDER INFLATION | 204 | 100 |
| HIGHER FREQUENCY | 6 | 3.0 |
| SAME FREQUENCY | 149 | 73.0 |
| LOWER FREQUENCY | 49 | 24.0 |
| DESTINATION PREFERENCE | 204 | 100 |
| DOMESTIC | 54 | 26.5 |
| INTERNATIONAL | 150 | 73.5 |
| SWITCH OF PREFERENCE IN 2020/2021 | 150 | 100 |
| YES | 89 | 59.3 |
| NO | 61 | 40.7 |

Figure 6 illustrates the level of international travel experience. Upon adding up the respondents who indicated to be overall experienced, this group builds the majority with 138

respondents (67.7%) while only a minority of 17 respondents (8.3%) stated to overall not be experienced on international travel, and 49 respondents (24%) indicated to neither be experienced nor inexperienced.

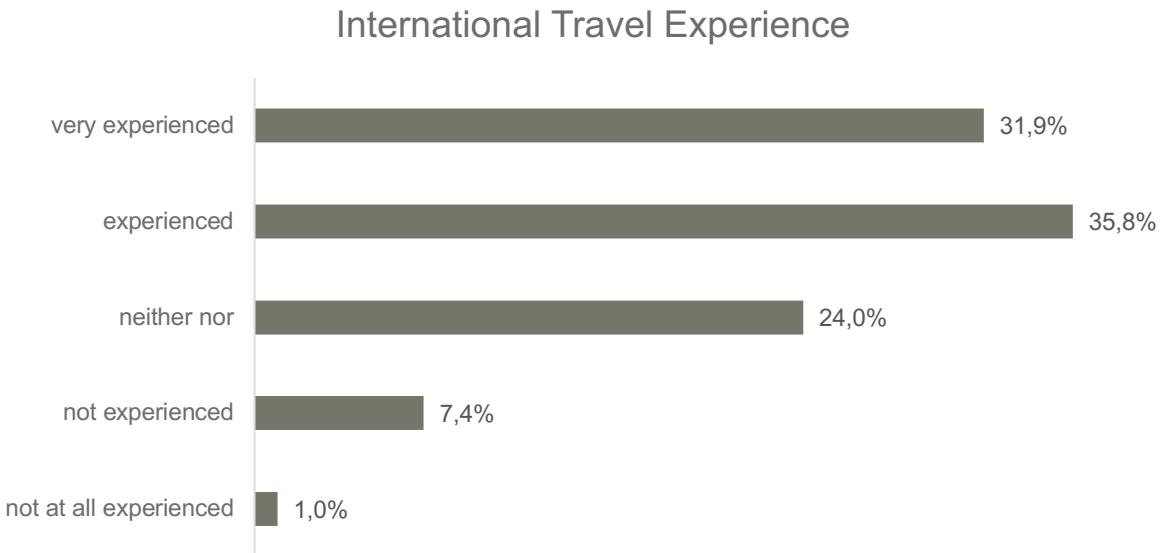


Figure 6. Respondents' International Travel Experience

When asked where the respondents had spent their main vacation in the years of 2020 to 2023, the respondents were given three answer options: travelling within the country, travelling abroad and spending their main vacation at home. For further research, the survey's answer options of travelling within the country and spending their main vacation at home have been combined, in order to represent the role of Germany as a destination choice compared to international travel. Figure 7 presents respective destination choice. As can be seen, the number of respondents choosing to spend their main vacation at home or on domestic trips has constantly decreased over the course of the pandemic. While having its peak in 2020, in which over 59% of the respondents chose Germany as their destination choice, it steadily dropped to less than 23% in the year of 2023.

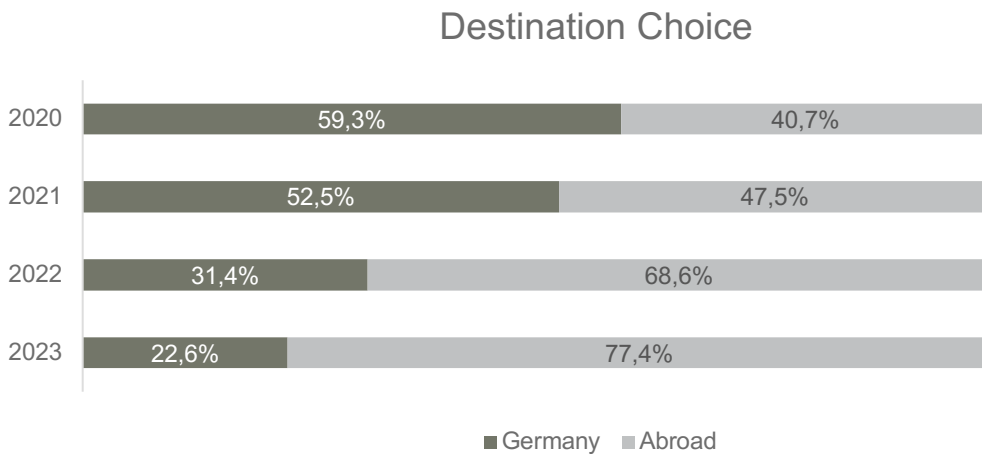


Figure 7. Respondents' Destination Choice in 2020 to 2023

In order to research travel purposes for both domestic and international trips, participants of the study were able to select multiple reasons. As illustrated by Figure 8, visiting friends and relatives (VFR) on domestic trips (55.9%) plays a much more significant role than VFR does on international trips (17.2%). However, respondents stated that they do not only travel within their country for VFR reasons, but also enjoy recreation and leisure holidays within their home country (74.5%), which unsurprisingly is the respondents' main travel purpose on international trips (95.6%). Both, for domestic and international trips, business and respective bleisure travel were not selected very frequently by the study's respondents.

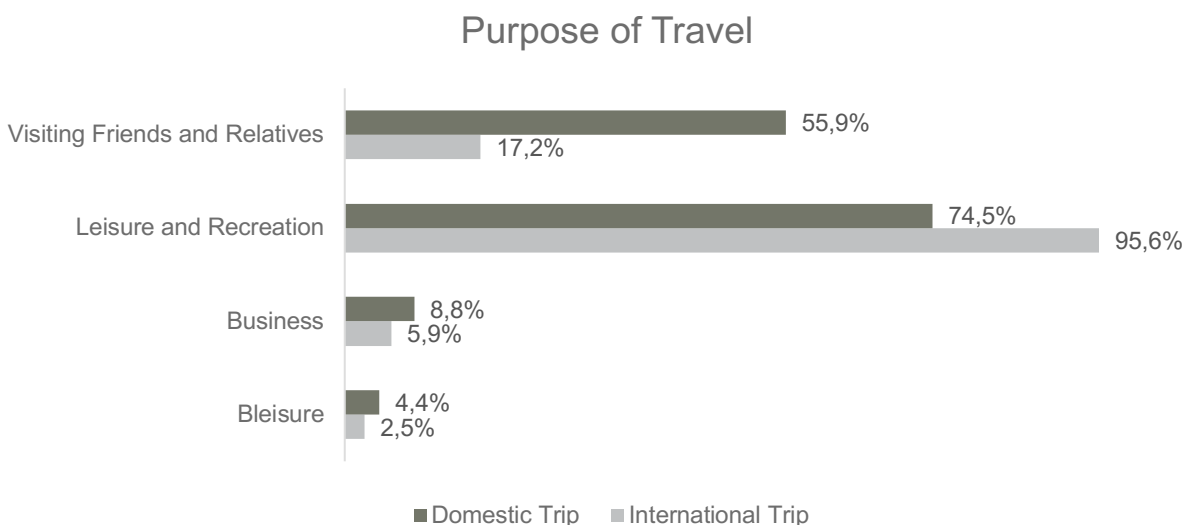


Figure 8. Respondents' Purpose of Travel

In the context of relevant factors for a domestic trip, rated on a 5-point Likert scale (1 = not relevant at all; 5 = very relevant), Figure 9 illustrates respective mean values. Recreation, good accessibility and culture have shown to be the main actors upon travelling within borders, while family-oriented offerings, short distance to their residency and educational activities have shown to be less relevant for participants of the study.

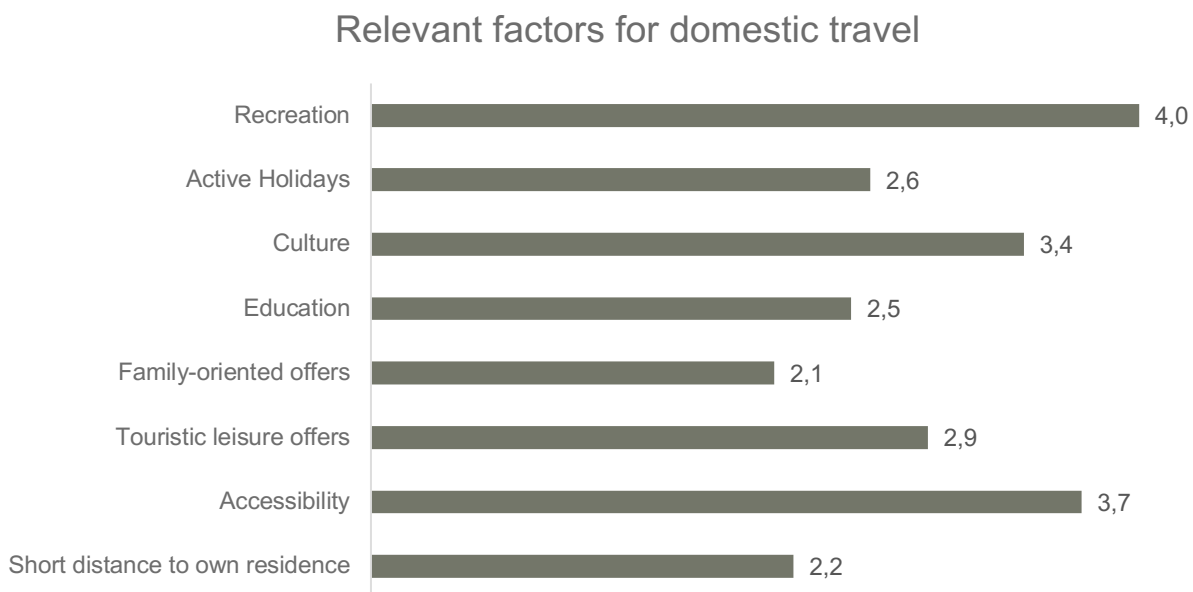


Figure 9. Respondents' Mean Values for Relevant Factors of Domestic Vacation

Concerning factors that attract respondents to travel domestically, 60.8% indicated Germany's diverse landscape to be relevant, 57.3% reported shorter travel times to be an attractive factor for domestic travel, and 55.9% the respondents rated its great infrastructure to be relevant.

With regards to risk perception, respondents were asked to indicate the severity of COVID-19 on a 5-point Likert scale. Such questioning resulted in a mean value of 3.55, as the majority of 112 respondents (54.9%) had perceived the risk of COVID-19 to be severely, while 34 (16.7%) did not perceive the illness to be severely, and 58 of them (28.4%) remained indecisive.

With regards to risk perception on travels during COVID-19, 131 respondents (64.2%) perceived international travels to be more risky than domestic ones. Out of these 131

respondents, 58% decided to opt for a domestic trip rather than an international one during the pandemic years due to the perception of higher risk on international travels.

Comparing how present respondents perceived the seven travel-specific risks, researched among a 5-point Likert scale, Figure 10 comprehensively shows the mean values of each risk both on domestic and international trips, visualizing that all seven risks have been perceived higher on international trips than on domestic ones, while for both domestic and international travel, health risks have been rated the most present one.

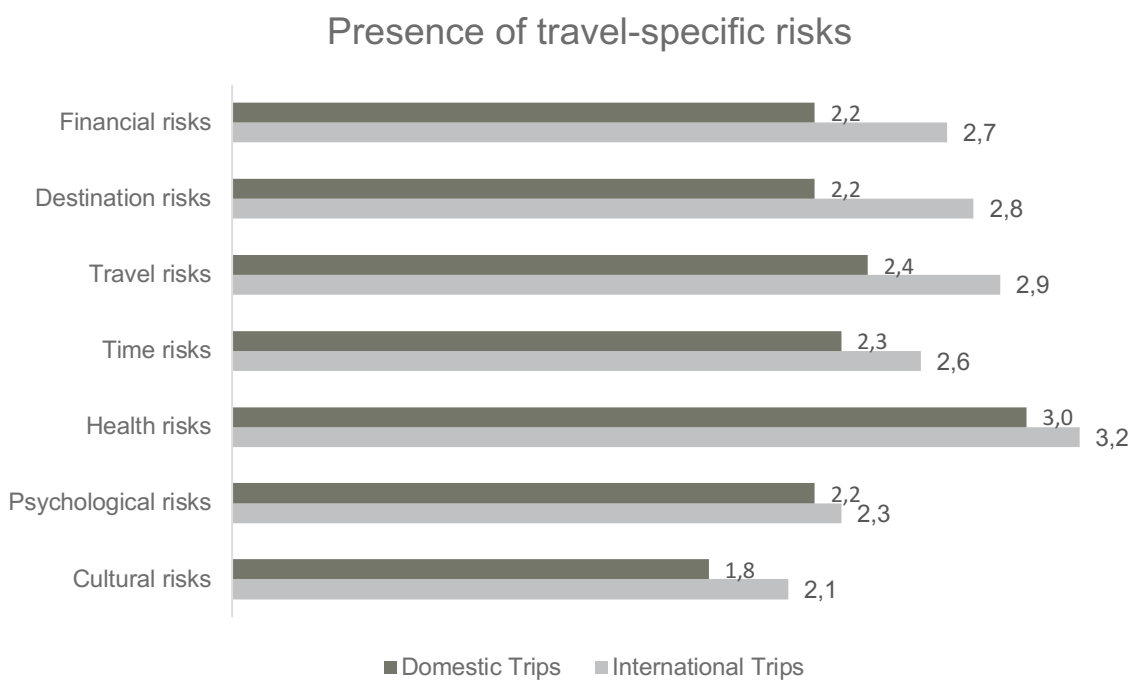


Figure 10. Mean Values of Respondents' Perception of Travel-Specific Risks on Domestic versus International Trips

Figure 11 presents perceived threat levels and influence on travel behavior of the seven considered travel risks. Upon researching the perceived threat levels of the seven risks, respondents have indicated health risks to be the most threatening ($M = 3.3$), followed by travel risks ($M = 2.8$) and destination risks ($M = 2.7$). A similar observation is made upon researching which of the seven risks is the most influential on the respondents' travel behavior, which has shown to be health risks ($M = 3.2$), also followed by travel risks ($M = 2.7$) and destination risk

(M = 2.6).

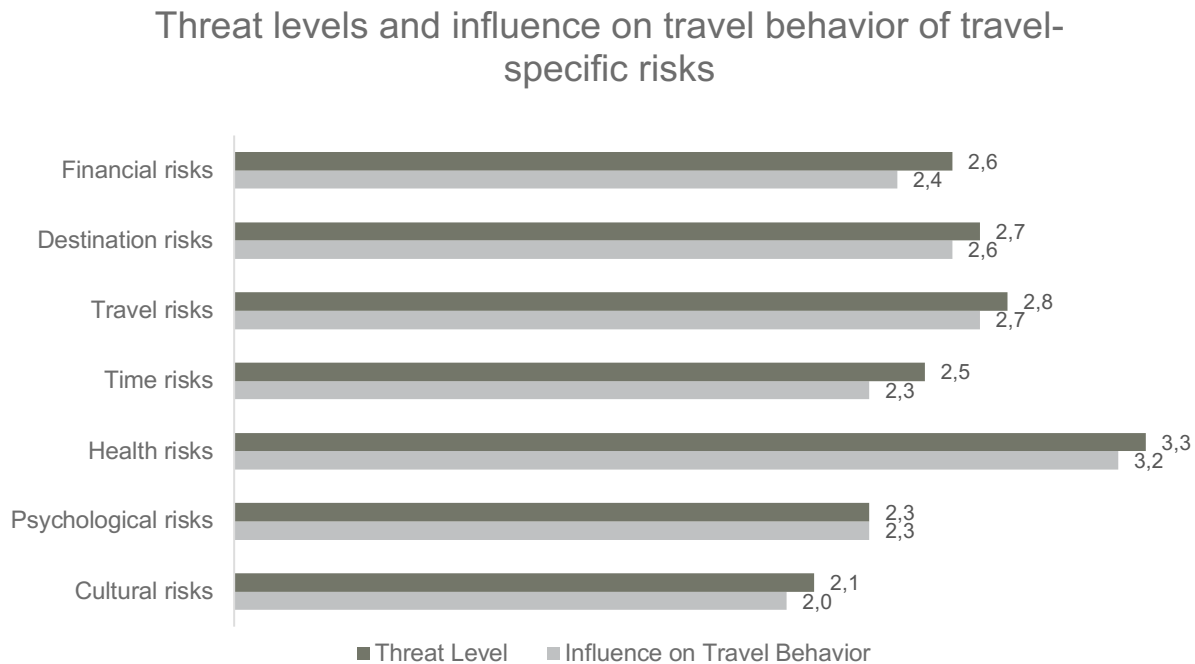


Figure 11. Mean Values of Threat Levels and Influence on Travel Behavior of Travel-Specific Risks

Financial risks seem not to have played a significant role with regards to influencing the respondents' travel behavior. In a set of statements, researching less frequent travels, change of international travel into domestic travel, no travels at all among others, respondents were asked to indicate their level of agreement for the years of 2020 to 2023. 165 respondents (81%) stated that in none of the years of 2020 to 2023 financial concerns had impacted their travel behavior. Such observation is underlined by 90% of the respondents disagreeing with the statement "Due to financial concerns I did not plan any travels" for all four years.

Regarding the respondents' vulnerability, 67 respondents (32.8%) stated to have belonged to a risk or vulnerable group due to missing vaccination, pre-conditions, and age, while the majority of 137 respondents (67.2%) indicated not to be. Consequently, only 25% of the respondents personally felt vulnerable to COVID-19, while 42.2% neither felt vulnerable nor invulnerable and 32.8% did not feel vulnerable towards COVID-19. When being asked whether the respondents feel less vulnerable towards a threat such as COVID-19 on domestic trips versus international trips, 49% affirmed, while 51% denied.

As part of researching the respondents' adaptive behavior, the participants were given a set

of seven statements to which they were asked to indicate their individual level of agreement on a 5-point Likert scale (1 = do not agree at all; 5 = strongly agree). The mean values of such level of agreement are illustrated by Figure 12, indicating adaptive behavior especially shown through integrating recommended health and safety measures (such as wearing masks, using hand sanitizer and practicing social distancing), as well as intensified information-seeking and integration of latest travel guidelines and safety measures.

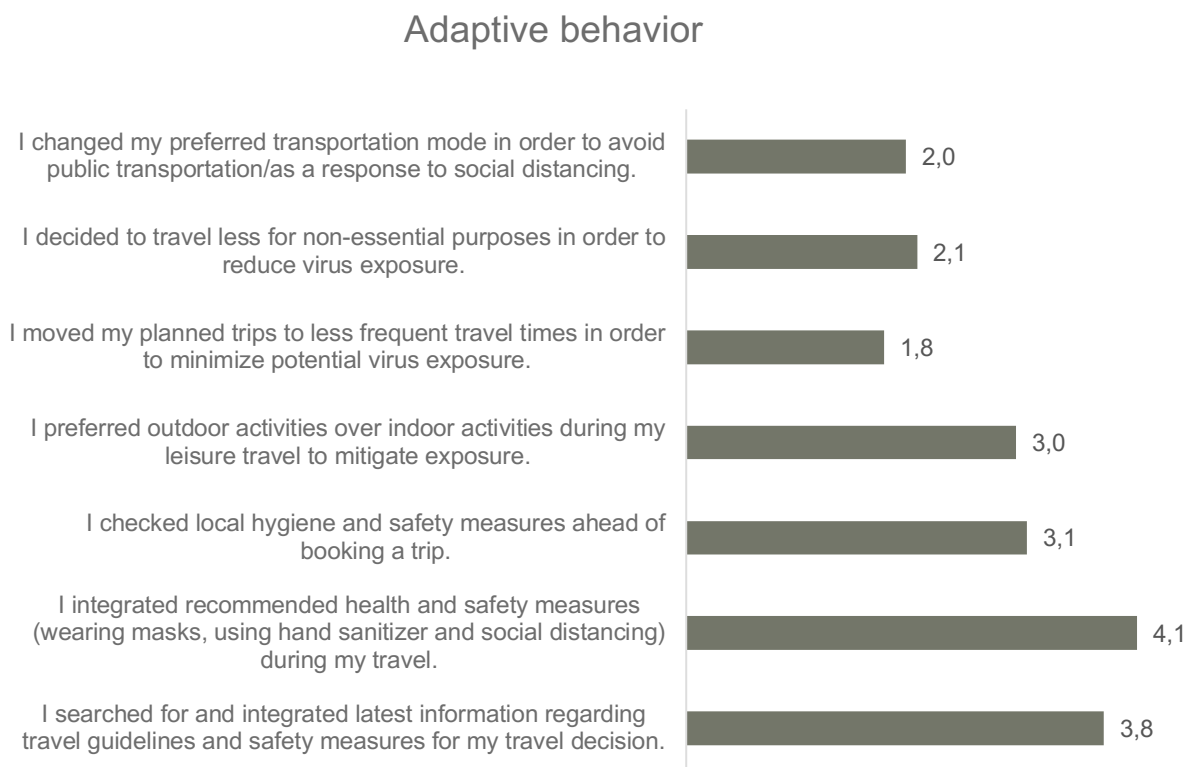


Figure 12. Mean Values of Respondents' Level of Agreement towards Adaptive Behaviors

4.2 Hypotheses Testing

4.2.1 Adaptive Behavior Results

The first hypothesis was "Adaptive behavior positively correlates with domestic travel decision during COVID-19". To measure the construct of adaptive behavior, first a factor analysis with the seven items of the survey's Q37 measuring adaptive behavior has been conducted to identify the items' dimensions. Such analysis with extraction through maximum likelihood

method resulted in the further usage of only three of the initial seven items, which showed good factor loadings of above 0.6, namely:

- Item 2 (.681): I decided to travel less for non-essential purposes in order to reduce virus exposure.
- Item 3 (.663): I moved my planned trips to less frequent travel times in order to minimize potential virus exposure.
- Item 4 (.709): I preferred outdoor activities over indoor activities during my leisure travel.

In order to identify internal consistency of the three considered items, Cronbach's Alpha (α) is used. Such reliability analysis has resulted in $\alpha = .732$. Based on Tavakol & Dennick (2011, p. 54), who regard 0.7 as a benchmark value for acceptable reliability, such determined value for the internal consistency is acceptable.

After the mean value for items 2, 3 and 4 ($M = 2.30$, $SD = 1.01$) has been calculated, a one-tailed bivariate correlation analysis has been conducted between the mean value of the three identified adaptive behavior items and the sum of the survey's Q14, measuring the respondents' destination choice for the four years of 2020 to 2023. Within SPSS, destination choice has been coded to 0 indicating international travel throughout the years 2020, 2021, 2022 and 2023, whereas 1 indicated domestic travel in those years. Based on Cohen (1988), such analysis resulted in a weak but statistically significant correlation of .127 ($p = .035$). Consequently, **H1 has been accepted**.

Such result is underlined through an independent samples t-test ($t(75) = 1.662$, one-sided $p = .050$) between adaptive behavior among respondents who solely traveled within borders in the years of 2020 to 2023 and those who solely traveled outside of Germany. Such testing has shown higher adaptive behavior scores ($M = 2.57$, $SD = 1.34$) for the respondents who kept their travels within the country compared to those who spent their main vacation across borders ($M = 2.12$, $SD = .99$) in the years of 2020 to 2023.

To further test differences between adaptive behavior and gender, an independent samples t-test ($t(202) = .143$, two-sided $p = .887$) is conducted, which could not determine any statistically significant difference between the two genders and their level of adaptive behavior,

even though male respondents ($M = 2.32$, $SD = 1.03$) had demonstrated slightly higher adaptive behavior scores than female respondents did ($M = 2.30$, $SD = 1.00$).

The result of another independent samples t-test ($t(202) = 1.684$, one-sided $p = .047$) supported researching the effect of age on adaptive behavior. Such finding has shown that there is a statistically significant difference between adaptive behavior among respondents of 56 years and older ($M = 2.46$, $SD = .98$) compared to respondents aged 17 to 55 years ($M = 2.21$, $SD = 1.02$).

4.2.2 Perceived International Travel-Specific Risks Results

In order to test Hypothesis 2a, researching whether perceived travel-specific risks on international travels positively correlate with domestic destination choice, a factor analysis with those seven items was conducted. Such factor analysis helped identifying the items' dimensions. Since the construct of risk perception was deemed to be formative, assuming that such construct is formed from its indicators and thus understood as a consequence of the measurement indicators (Weiber & Mühlhaus, 2009, p. 274), principal axis factoring was used as the extraction method, resulting in factor loadings varying from .564 (cultural risks) to .830 (travel risks). Next to travel risks, good factor loadings were further identified for destination risks (.762), financial risks (.713), and time risks (.701).

Next, a reliability analysis is carried out to determine internal consistency of the construct perceived travel-specific risks on international travel. The evaluation of Cronbach's Alpha indicated a sufficient internal consistency for travel-specific risks on international trips of $\alpha = .869$. With regards to Tavakol and Dennick's classification (2011, p. 54), the internal consistency for this construct is high and thus applicable for further analysis.

In order to determine whether there is a relationship of risk perception on international trips and domestic vacation decision-making during COVID-19, the mean value ($M = 2.50$, $SD = .88$) for the survey's Q29, measuring the presence of the seven travel-specific risk on international travels, has been calculated, with which a one-tailed bivariate correlation analysis has been conducted with the destination choice of the respondents for each of the four relevant years. When looking at each of the four years individually, the correlation analysis shows weak, but statistically relevant correlations based on Cohen (1988) of .117 ($p = .047$) for 2020

and .138 ($p = .024$) for 2022, while no correlations are shown for the years of 2021 and 2023 (correlations $< .05$, $p > .25$). Based on the correlations in the years of 2020 and 2022 proving a weak positive relationship between the perception of travel-specific risks on international travel and the decision to travel domestic during COVID-19, **H2a is accepted.**

An independent samples t-test ($t(202) = 3.518$, $p < .001$) was further conducted in order to examine the role of gender on respondents' perception of risk. Such testing shows statistically relevance and thus confirms that females perceive risk on international trips higher ($M = 2.66$, $SD = .87$) than male respondents do ($M = 2.23$, $SD = .82$). In fact, women rated the presence of each of the seven travel-specific risks higher than their opponent gender did as can be seen from Table 2, which also demonstrates both genders to perceive health risk to be the most present one on international travel among the seven travel-specific risks. In fact, further analysis has confirmed that both female and male respondents rated health risks to be the most influential on their travel behavior during COVID-19.

Table 2. Mean Values of The Presence of Travel-Specific Risks on International Travel as Perceived by Gender

| | GROUP 1 MALE N = 75 | GROUP 2 FEMALE N = 129 |
|----------------------------|------------------------------------|---------------------------------------|
| FINANCIAL RISKS | M = 2.27 SD = 1.39 | M = 2.91 SD = 1.31 |
| DESTINATION RISKS | M = 2.55 SD = 1.33 | M = 2.98 SD = 1.27 |
| TRAVEL RISKS | M = 2.55 SD = 1.28 | M = 3.18 SD = 1.32 |
| TIME RISKS | M = 2.28 SD = 1.30 | M = 2.73 SD = 1.37 |
| HEALTH RISKS | M = 2.92 SD = 1.34 | M = 3.31 SD = 1.42 |
| PSYCHOLOGICAL RISKS | M = 2.04 SD = 1.27 | M = 2.46 SD = 1.36 |
| CULTURAL RISKS | M = 1.77 SD = .97 | M = 2.27 SD = 1.15 |

To assess differences in respondents' perception of **threat levels** posed by travel-specific risks and age, an independent samples t-test ($t(202) = .906$, one-sided $p = .183$) was conducted. Although such testing showed that the perception of threat levels among the seven risks did not significantly differ in terms of age according to the statistics, comparing the mean values of group 1, consisting of respondents aged 17 to 55 years old, with those of group 2, consisting of respondents above 56 years old, indicates that the younger group perceived overall higher threat levels on the seven travel-specific risks ($M = 2.64$, $SD = .78$) than the older group did ($M = 2.53$, $SD = .86$). Table 3 further presents a mean value comparison for each risk individually among the two respondent groups, illustrating that respondents of group 2 rate threat levels higher for health risks, psychological risks, and cultural risks, while group 1 perceives financial risks, destinations risks, travel risks and time risks to be more threatening than its opposing group. However, within such individually comparison, statistically significant differences between the two age groups were only found for cultural risks ($t(202) = -2.210$, $p = .014$), financial risks ($t(202) = 4.372$, $p < .001$) and destination risks ($t(202) = 1.858$, $p = .032$).

Table 3. Mean Values of Threat Levels Imposed by Travel-Specific Risks as Perceived by Age Groups

| | GROUP 1 17-55 YEARS N = 130 | GROUP 2 56 YEARS AND OLDER N = 74 |
|----------------------------|--|--|
| FINANCIAL RISKS | M = 2.89 SD = 1.38 | M = 2.08 SD = 1.07 |
| DESTINATION RISKS | M = 2.80 SD = 1.21 | M = 2.49 SD = 1.06 |
| TRAVEL RISKS | M = 2.87 SD = 1.21 | M = 2.70 SD = 1.20 |
| TIME RISKS | M = 2.52 SD = 1.24 | M = 2.39 SD = 1.14 |
| HEALTH RISKS | M = 3.19 SD = 1.35 | M = 3.39 SD = 1.25 |
| PSYCHOLOGICAL RISKS | M = 2.28 SD = 1.23 | M = 2.40 SD = 1.30 |
| CULTURAL RISKS | M = 1.94 SD = 1.03 | M = 2.28 SD = 1.14 |

Upon carrying out a one-tailed bivariate correlation analysis between perceived financial risk on international travel, which was recorded by using a 5-point Likert scale, and the sum value of overall destination choice in the years of 2020 to 2023, the carried-out correlation analysis is not showing any statistically significant relationship with an overall correlation coefficient of $-.078$ (one-tailed $p = .133$). Such finding is further underlined by looking at each year individually, in order to see a potential development over the considered years. Over all four years, no statistically significant relationship is to be observed, as such analysis shows Spearman's rho correlations for 2020 of $-.082$ ($p = .121$), for 2021 of $-.007$ ($p = .458$), for 2022 of $-.078$ ($p = .135$) and for 2023 of $-.077$ ($p = .137$). As a result, **H2b is rejected**.

4.2.3 Tourists' Characteristics Results

In order to determine a negative relationship between international travel experience and decision for domestic travel during COVID-19, a one-tailed bivariate correlation between travel experience on international trips, being recorded by using a 5-point Likert scale, and destination choice for each of the four years individually has been conducted. Rather than building the sum value for destination choice over the period considered, this analysis illustrates a progression over the years and shows inconsistent values for each individual year, as the correlations are not equally strong throughout the years. While for each individual year there is a negative correlation, suggesting that in fact there is a negative relationship between the degree of international travel experience and the choice to travel domestically, the correlation for 2020 results in a value of $-.177$ ($p = .006$), while the peak negative correlation of $-.270$ ($p < .001$) is observed in 2021. In 2022, the negative correlation decreases to $-.205$ ($p = .002$) while dropping to the lowest correlation value of $-.176$ ($p = .006$) in the year of 2023. Such results have been confirmed by a cross-tabulation and chi-square statistics (which show the two-tailed p-values, thus are around double of the presented one-tailed p-values of the correlation analysis) presented by Table 4. Based on such analysis, **H3a is accepted**.

Table 4. Cross-tabulation of The Role of International Travel Experience on Destination Choice 2020 – 2023

| | 2020 | | 2021 | | 2022 | | 2023 | |
|--|-----------------------------------|------------------|----------------------------------|------------------|-----------------------------------|-------------------|-----------------------------------|-------------------|
| | Domestic N = 121 | Abroad N = 83 | Domestic N = 107 | Abroad N = 97 | Domestic N = 64 | Abroad N = 140 | Domestic N = 46 | Abroad N = 158 |
| NOT EXPERIENCED AT ALL N = 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| NOT EXPERIENCED N = 15 | 12 | 3 | 12 | 3 | 7 | 8 | 8 | 7 |
| NEITHER NOR N = 49 | 33 | 16 | 33 | 16 | 22 | 27 | 12 | 37 |
| EXPERIENCED N = 73 | 44 | 29 | 38 | 35 | 20 | 53 | 13 | 60 |
| VERY EXPERIENCED N = 65 | 31 | 34 | 23 | 42 | 14 | 51 | 12 | 53 |
| | Pearson's R = -.177 (p = .011) | | Pearson's R = -.270 (p <.001) | | Pearson's R = -.205 (p = .003) | | Pearson's R = -.176 (p = .012) | |

With regards to the relationship of perceived vulnerability and domestic travel during COVID-19, a one-tailed bivariate correlation analysis has been conducted. To test this hypothesis, the survey's Q34, in which respondents indicated their individual perception of being vulnerable towards COVID-19 on a 5-point Likert scale, was correlated with the respondents' destination choice during the period of 2020 to 2023. Such analysis only shows a statistically relevant relationship for the years of 2020 (correlation coefficient = .138, p = .024) and 2022 (correlation coefficient = .142, p = .022) and is further confirmed by a cross-tabulation and chi-square statistics (indicating the two-tailed p-values, thus are around double of the presented one-tailed p-values of the correlation analysis) presented by Table 5. According to Cohen (1988), it is considered weak correlation. Consequently, **H3b is accepted**.

Table 5. Cross-tabulation of The Role of Perceived Vulnerability on Destination Choice 2020 – 2023

| | 2020 | | 2021 | | 2022 | | 2023 | |
|---|----------------------------------|------------------|----------------------------------|------------------|----------------------------------|-------------------|----------------------------------|-------------------|
| | Domestic N = 121 | Abroad N = 83 | Domestic N = 107 | Abroad N = 97 | Domestic N = 64 | Abroad N = 140 | Domestic N = 46 | Abroad N = 158 |
| NOT VULNERA- BLE AT ALL N = 31 | 15 | 16 | 14 | 17 | 6 | 25 | 7 | 24 |
| NOT VULNERA- BLE N = 36 | 19 | 17 | 18 | 18 | 8 | 28 | 7 | 29 |
| NEITHER NOR N = 86 | 53 | 33 | 48 | 38 | 30 | 56 | 18 | 68 |
| VULNERA- BLE N = 38 | 24 | 14 | 23 | 15 | 16 | 22 | 11 | 27 |
| VERY VULNERA- BLE N = 13 | 10 | 3 | 4 | 9 | 4 | 9 | 3 | 10 |
| | Pearson's R = .138 (p = .049) | | Pearson's R = .025 (p = .718) | | Pearson's R = .142 (p = .043) | | Pearson's R = .039 (p = .577) | |

Suggesting that age influences the level of perceived vulnerability towards COVID-19, respondents have been divided into two groups (respondents above 56 years old building one group, respondents aged 17 to 55 years old building the other) to further test differences between the respondents' age and their perceived vulnerability towards COVID-19. Based on that, an independent samples t-test ($t(202) = 1.644$, one-sided $p = .051$) has indicated that age and vulnerability are positively and statistically significantly associated. Older respondents (above 56 years old) show a higher perception of vulnerability ($M = 3.00$, $SD = 1.10$) than those aged 17 to 55 years, which showed lower levels of perceived vulnerability towards COVID-19 ($M = 2.74$, $SD = 1.09$).

Upon carrying out a one-tailed bivariate correlation analysis in order to research whether there is a negative relationship between income and domestic travel decision during COVID-19, Spearman's rho has not shown negative correlations for any of the four years individually, but instead very weak positive correlations with high significance values (2020: Spearman's

rho = .095, one-tailed p = .089; 2021: Spearman's rho = .072, one-tailed p = .155; 2022: Spearman's rho = .097, one-tailed p = .083; 2023: Spearman's rho = .032, one-tailed p = .324). Such observation has been confirmed by a cross-tabulation analysis including Chi-square tests illustrated by Table 6, which however illustrates two-tailed p-values instead of used one-tailed p-values within the correlation analysis. In fact, an independent samples t-test ($t(202) = 1.069$, one-sided p = .143) has shown no statistically significant difference, although indicating higher means for the income group of 3000€ and above ($M = 1.75$, $SD = 1.30$) than for the income group below 3000€ ($M = 1.54$, $SD = 1.38$). Based on these results, **H3c is rejected.**

Table 6. Cross-tabulation of The Role of Income on Destination Choice 2020 – 2023

| | 2020 | | 2021 | | 2022 | | 2023 | |
|-----------------------------------|-------------------------------------|------------------|-------------------------------------|------------------|-------------------------------------|-------------------|-------------------------------------|-------------------|
| | Domestic N = 121 | Abroad N = 83 | Domestic N = 107 | Abroad N = 97 | Domestic N = 64 | Abroad N = 140 | Domestic N = 46 | Abroad N = 158 |
| BELOW 1000€ N = 15 | 8 | 7 | 7 | 8 | 3 | 12 | 3 | 12 |
| 1000-2000€ N = 35 | 17 | 18 | 20 | 15 | 13 | 22 | 8 | 27 |
| 2000-3000€ N = 40 | 25 | 15 | 17 | 23 | 10 | 30 | 8 | 32 |
| 3000-4000€ N = 35 | 18 | 17 | 16 | 19 | 6 | 29 | 7 | 28 |
| 4000-5000€ N = 40 | 30 | 10 | 24 | 16 | 16 | 24 | 11 | 29 |
| ABOVE 5000€ N = 39 | 23 | 16 | 23 | 16 | 16 | 23 | 9 | 30 |
| | Spearman's rho = .095 (p = .178) | | Spearman's rho = .072 (p = .309) | | Spearman's rho = .097 (p = .166) | | Spearman's rho = .032 (p = .649) | |

In order to test whether there is a positive relationship between age and domestic travel decision during COVID-19, a one-tailed bivariate correlation analysis has been conducted. Within the survey, respondents were asked to indicate their age group among seven groups. In the course of the following analysis, those classifications have been reduced to four groups each with at least N = 30. Correlating these age groups with the respondents' destination choice for each of the four relevant years of 2020 to 2023, resulted in inconsistently strong

correlations according to Spearman's rho. For 2020, the correlation was very weak at .075 ($p = .143$), while in 2021, there was a modest correlation of .209 ($p = .001$). The strongest correlation was observed in the year of 2022, with a correlation coefficient of .256 ($p < .001$), while the correlation was very weak in the year of 2023 with a correlation coefficient of .055 ($p = .219$). Similar observations have been reached through Cross-tabulation with Chi-square tests as illustrated by Table 7. While symmetric measures within the table show two-tailed p-values, for the correlation analysis one one-tailed p-values were calculated due to the directionality of the hypothesis.

Table 7. Cross-tabulation of The Role of Age on Destination Choice 2020 – 2023

| | 2020 | | 2021 | | 2022 | | 2023 | |
|--------------------------------------|---|------------------|---|------------------|---|-------------------|---|-------------------|
| | Domestic N = 121 | Abroad N = 83 | Domestic N = 107 | Abroad N = 97 | Domestic N = 64 | Abroad N = 140 | Domestic N = 46 | Abroad N = 158 |
| 17-35 YEARS N = 84 | 48 | 36 | 35 | 49 | 16 | 68 | 17 | 67 |
| 36-55 YEARS N = 46 | 27 | 19 | 26 | 20 | 15 | 31 | 11 | 35 |
| 56-65 YEARS N = 35 | 17 | 18 | 17 | 18 | 13 | 22 | 7 | 28 |
| ABOVE 66 YEARS N = 39 | 29 | 10 | 29 | 10 | 20 | 19 | 11 | 28 |
| | Spearman's rho = .075 ($p = .287$) | | Spearman's rho = .209 ($p = .003$) | | Spearman's rho = .256 ($p < .001$) | | Spearman's rho = .055 ($p = .438$) | |

Such result is underlined by an independent samples t-test ($t(202) = 2.246$, one-sided $p = .013$). Regarding mean values of respondents solely travelling within borders during the time period of 2020 and 2023, domestic travel was shown to be more significant among respondents aged 56 years and older ($M = 1.93$, $SD = 1.42$) compared to those aged between 17 and 55 years ($M = 1.50$, $SD = 1.27$). Based on the analyses' results, **H3d is accepted.**

5 DISCUSSION

This study aims at enhancing research in the area of vacation decision-making under risk by examining the impact of COVID-19 on Germany's domestic tourism. While giving insights into the travel behavior of German tourists during the years of 2020 to 2023, such findings should be regarded with caution due to several limitations. As a result, the following chapter intends to reflect on this study's research process and importance while also introducing its findings and interpretation along with presenting prevailing limitations and possible suggestions for future research.

While domestic tourism in Germany has always been interesting for many German tourists, this study aimed at researching whether domestic travel has become increasingly attractive and important for Germans during and after the COVID-19 pandemic, and by which factors such destination choice is being influenced.

The study's first research question "What is the relationship between adaptive behavior and domestic travel decisions during COVID-19?" has been researched as part of the testing of H1. In line with such, the author expected German tourists who decided to spend their main vacation on domestic trips only during the years of 2020 to 2023 to show higher adaptive behavior than German tourists who kept travelling across borders. Consequently, H1 suggests that the decision for domestic travel happens to be a result of protective motivation and risk-reducing behavior in threatening situations such as the COVID-19 pandemic. In fact, the carried-out correlation analysis has shown that there is some kind of relationship between German tourists travelling domestically and adaptive behavior during the time period of 2020 to 2023. However, it should be noted that such relationship is influenced by many other factors as well, which in its entirety have not been researched within this study.

Such analysis is further underlined by an independent samples t-test observing higher adaptive behavior scores for respondents solely spending their main vacation within borders compared to those who decided to spend their main vacation solely across borders in the years of 2020 to 2023, well noting that such difference would be more significant if the number of respondents would be larger. Such findings build on the idea of PMT, suggesting that respondents opting only for domestic tourism do so as part of a risk-reducing strategy as they perceived travelling within the country to be lower in risk and higher in safety during COVID-19. Further, domestic destination choice can be regarded as part of the threat and coping

appraisal within the PMT framework (Çınar et al., 2022, p. 6). Such findings are in line with existing literature, describing how the motivation to engage in protective behavior is highly impacted by the assessment of perceived severity and vulnerability towards COVID-19 within the threat appraisal process, paired with self-efficacy and response efficacy within the coping appraisal (Arroyo & Solís, 2021, p. 31). Consequently, both threat and coping appraisal play a vital role within tourists' intention to protect themselves during travels (Çınar et al., 2022, p. 16), which they aim to do by adapting their travel behavior.

Upon researching the role of gender on the degree of adaptive behavior, no statistically significant differences among the genders' adaptive behavior were found through an independent samples t-test. Such finding contradicts existing literature (Ferrín, 2022, p. 32; Kim et al., 2018, pp. 54). According to such, females have shown higher adaptive behavior through less risky activities and demeanors in the past, as they tend to overvalue the probability of unfavorable consequences to occur. In an attempt to understand why male respondents of this study still have shown slightly higher adaptive behavior than female respondents did, it is helpful to look into the age distribution of the study's respective genders. While female respondents dominated the younger age groups, with around 51% of the female respondents being 35 years or younger (compared to 24% males in that age category), male respondents were particularly represented within the older age categories. Around 35% of male respondents indicated to be 66 years and older, while female respondents of that age category only accounted for 10%. It is assumed that adaptive behavior is highly driven by age, which is confirmed through higher mean values concerning adaptive behavior of respondents aged 56 years and older than those aged 17 to 55 years. Such gender and age distribution assists explaining why male respondents of this study, who on average are older than female respondents, have shown higher adaptive behavior scores.

In order to answer the research question "What is the relationship between risk perception and domestic travel decision?", it is important to remember prevailing rules and status quo in Germany concerning the COVID-19 pandemic (BMG, 2024). When COVID-19 was announced a global pandemic, infection numbers in Germany soon started to spike in 2020. There was a lot of fear among Germans, due to the novelty of such virus and increasing death numbers. International air transport has mostly come to a full stop by March 2020, leaving international tourists stranded in their holiday destination. The German government

thus organized so-called evacuation flights to bring Germans stuck abroad back to their home country. As tourism was deemed a main cause for such fast spreading of the virus, travelling outside of the country resulted in a 10-day quarantine for travelers returning to Germany from a risk area by October that year. By April of 2021, the pandemic had reached its third peak in Germany, being characterized by high incidences and thus very strict entry regulations for the country. Although vaccination had just started, there was a shortage of vaccines, long waiting times and prioritization of certain groups. Everyone entering Germany by air had to present a valid negative test result or a vaccination or recovery certificate in order to be transported. Generally, people entering Germany had to register their entry and there were quarantine rules for travelers coming from all countries, which only could be shortened by a negative test result. In summer of 2021, the highly contagious 'Delta' variant arrived in Germany and by December, 'Omikron' started circulating. Only in March of 2022, with the third amendment regulation of the COVID-19 entry regulation, an ease on travelling for Germans has been reached.

Researching the respondents' domestic vacation decision-making among the seven dimensions of perceived travel-related risks on international trips, which are shown to each have different effects on behavioral intention behavior (Jiang et al., 2022, p. 2), the results indicate that in fact there is a relationship between high risk-perception on international trips and the decision to travel domestically especially for 2020. Such results are in line with existing literature suggesting that tourists' risk perception towards travel determines their respective consumer behavior (Bauer, 2000, p. 14), resulting in amendments of planned travels which in fact have become more frequently during the COVID-19 pandemic (Neuburger & Egger, 2021a, p. 1011). This is to be explained by the novelty of the pandemic. Such a threatening situation has been new and unknown for all generations alike, consequently there was a lot of fear prevailing. Since in 2020 it was not clear yet on how the pandemic would evolve, and how far-reaching the situation would be, risks have been perceived especially high on international travels resulting in German tourists preferring to travel within their borders as part of their risk-reducing behavior. Moreover, as travelling abroad was made quite difficult and stressful due to strict quarantine rules for international travelers returning to Germany, risk perception levels of international travel were accordingly deemed higher in 2020 and thus Germans rather opted for domestic travel. To explain no statistically significant relationship between perceived risks on international travel and domestic travel decision in 2021, it is important to remember that 2021 was the year of vaccination against COVID-19 with the official

start of vaccination at the end of December 2020 (Steinhauser, 2023, p. 114). Such vaccination option may have led to lower perceived risk levels even upon international travels. Moreover, respondents may have gotten used to the pandemic situation by then and have started becoming more confident and less fearful of travelling abroad again, implying a lower level of risk perception on international travel. However, as 'Omikron' became more and more present in 2022, respondents may have felt higher levels of risk on international travel again, resulting in them to favor a domestic trip which imposed lower perceived risks. For 2023, during which all travel restrictions have been lifted again, and normality has finally mostly returned to all areas of life, respondents may have perceived risks on international travel to be almost non-existent and thus preferably traveled across borders again, explaining no significant relationship for that year. In fact, according to existing literature, perceived risk and safety of a destination act as a driving force within a tourist's destination choice and consequently highly affects respective travel behavior (Reisinger & Mavondo, 2005, p. 214; Sönmez & Graefe, 1998a, p. 172).

An independent samples t-test has shown statistical significance between gender and the perception of risks on international travel. The results of this testing further indicate that generally, females have a higher perception of each of the seven travel-specific risks. This is in line with existing literature (Byrnes et al., 1999, p. 377; Ferrín, 2022, p. 32; Kim et al., 2018, pp. 54), suggesting that women in general perceive and assess risk higher than men do as they are less risk-taking than their opposing gender. In fact, Harris & Jenkins (2006, p. 57) have shown females to be less likely to be involved in behavior patterns deemed to be risky concerning their health as females tend to overvalue the probability of negative outcomes rather than undervaluing it. Interestingly, both genders perceived health risk to be the most present risk upon international travels, which both groups also declared to be the risk having the most influence on their travel behavior.

With regards to the role of age on perceived threat levels of the travel-specific risks, the independent samples t-test has shown that the perception of threat levels did not statistically differ in terms of age, even though surprisingly, the younger age group (aged 17 to 55 years) perceived overall higher threat levels upon comparing means. Such comparison further demonstrated that older respondents, aged 56 years and older, felt health risks, psychological risks and cultural risks to be more threatening than the younger group, for which a statistical significance only was determined for the latter. Such higher perceived threat level of the

older group for health risks is in line with existing literature. Kim et al. (2018, pp. 56) show that older individuals, due to their higher susceptibility towards health issues, perceive risks concerning their health, to be more threatening and serious than younger individuals do. Especially with regards to COVID-19 as a health risk, older individuals are more likely to experience complications from such infection than younger individuals are (Nolte & Hanoch, 2024, p. 4). For respondents aged below 56 years, financial risks, destination risks and travel risks were shown to be more threatening compared to the older age group regarding the mean values, while only financial risks and destination risks statistically differed between the age groups according to the independent samples t-test. Such findings of statistically significant differences among the age groups are supported by existing literature, indicating that individual characteristics such as age, affect the individual importance as well as sensitivity of risks (Reisinger & Mavondo, 2006, p. 17) and thus shows how different age groups perceive different risks more threatening and severe.

In order to answer the third research question “How do tourists’ characteristics relate to domestic travel decisions?”, the characteristics of travel experience, perceived vulnerability, income and age have been looked at closer, to research whether there is any relevant relationship between those and the decision to travel domestic during uncertain times such as COVID-19. Hypothesis 3a aimed at researching whether there was a negative relationship between travel experience and domestic travel decision in the years of 2020 to 2023. While the results of such analysis generally confirm that German tourists who have extensive experience on international travel, rather choose travelling abroad despite uncertain times such as COVID-19, it furthermore shows the progression over the four respected years, which each was subject to inconsistent strong correlation levels. Showing a rather low negative correlation for the year 2020, which was the beginning of COVID-19, such result indicates that despite being experienced on international travel, respondents of this study were not excessively travelling across borders but also remained within borders. Although experience increases a traveler’s confidence, due to newness of such pandemic and on-going fear or discomfort, experienced travelers still less frequently travelled across borders in 2020 compared to 2021 and 2022. With the correlation being the strongest in 2021, the author assumes that experience under challenging conditions, such as the COVID-19 pandemic, may play a greater role than under less challenging conditions. Such finding assumes that experience acts as a self-efficacy coping method within the PMT, as high levels of such encourage

individuals to behave a certain way as they feel more confident about their skills (Arroyo & Solís, 2021, p. 32). In retrospect, the year of 2021 has been quite severe concerning prevailing travel warnings and restrictions. It has been characterized by various lockdowns on a global scale and general everyday life restrictions, while also imposing hard quarantine rules for returning travelers from abroad to Germany. Such relatively high correlation suggests that when travelling internationally has become more difficult, travel experience has become even more important to respondents who decided to still travel internationally. Individuals may have felt confident enough to travel internationally despite numerous travel warnings due to their level of expertise on international travel. Such correlation slightly decreased in 2022, as with the third amendment of the German government, international travels have become easier again, and respective conditions were less challenging, thus experience played a less important role than the year before. Such interpretation would also confirm why the correlation has been the weakest in the year of 2023, suggesting that international travel experience is less significant and plays a less dominant role under regular conditions, as in 2023 normality has returned especially with respect to the tourism industry, and even travelers with less experience were confident enough to travel internationally again. In fact, such findings build on existing literature. Sönmez & Graefe (1998a, pp. 175) showed higher confidence levels among experienced travelers due to their past travel experience, while Kurniawati & Fyall (2023, p. 87) reported that experienced travelers are less uncertain providing them with a feeling of security.

With regards to researching whether there is some kind of relationship between perceived vulnerability and the decision to travel domestic during COVID-19, the results of H3b deliver a little insight and build on the results of H2a researching risk perception. The construct of perceived vulnerability was measured on the basis of the respondents' indicated level of vulnerability. Such analysis clearly has shown that there is a relationship between perceived vulnerability and domestic travel decision as a protective behavior for the years of 2020 and 2022. Such findings are supported by Çınar et al. (2022, p. 16), researching that respondents who did not perceive COVID-19 to be serious showed less engagement in behaviors to protect themselves. Zheng et al. (2021, p. 3) further identified perception of vulnerability to increase "travel fear" which eventually boosts protective motivation.

However, there is no notably relationship for the years 2021 and 2023. It is assumed that when looking back, respondents have felt much vulnerable in the beginning of the pandemic in 2020. The virus has just started to spread, it was very threatening and new with many

lockdowns and travel bans being present. Consequently, the respondents that felt high levels of vulnerability decided to, if travel at all, do so domestic only. In order to explain no relevant relationship for the year 2021, which clearly still has been affected by COVID-19, it must be noted that respondents may have not felt much vulnerable in 2021 as vaccination rates had increased and everyone that wanted to get vaccinated was eventually given a vaccination offer. Consequently, the risk of infection and respective vulnerability might have been rated low. However, perceived vulnerability has increased in 2022 again, as the highly infectious 'Omikron' variant made its way to Germany and it wasn't clear how much protection vaccination was providing against it. For 2023, no significant relationship was determined. This can be explained due to normalization that has returned and the lifting of mostly all travel restrictions, thus even respondents who felt higher levels of vulnerability more frequently travelled across borders again.

There is no doubt that older people are more vulnerable to any sort of sickness. In order to research the role of age on perceived vulnerability, the findings have confirmed that respondents of age 56 or older have felt more vulnerable towards COVID-19 than respondents below 56 years have felt. Such findings are in line with existing literature. González-Castro et al. (2021, p. 6) show a positive relationship between age and severity, vulnerability and protective behaviors. Consequently, a domestic travel decision was more relevant among the older, more vulnerable group, as an attempt to boost personal safety. Such findings are supported by Reisinger & Mavondo (2005, p. 213), declaring personal safety a relevant factor influencing the decision-making process of tourists. Especially for people feeling vulnerable or scared, travelling within one's country may give a peace of mind, knowing the country's health care system and the comfort of getting back home quite fast and conveniently. Domestic travel is characterized by less stressful travelling, more self-determined acting and travel plans, potential comfort of travelling with one's own car, no cultural differences or language barriers and a health care system that is known among its residents requiring no further travel insurance. While all these benefits may not play a vital role for especially younger generations, they become increasingly important with age.

In line with H3b, H3d researches the role age plays towards a domestic travel decision during COVID-19, expecting older travelers to be more likely to travel within the country during challenging times such as COVID-19. Such hypothesis has been confirmed over all four considered years. While for 2020, such relationship provenly has not been as strong, it shows a

quite modest relationship for the years of 2021 and 2022. Interestingly, although 2022 was not characterized by as strict rules as 2021 had been, there is a higher correlation of age and domestic travel decision for 2022. For once, it should be noted that for both years, 2021 and 2022, a new COVID-19 variant was spreading in Germany, both of them being highly contagious and yet unknown with regards to severity, moreover, especially older people were deemed a high-risk group with regards to COVID-19. Also, it could be a result of older travelers having learnt to enjoy the easiness and comfort and have started appreciating the perks of domestic travel in 2021, which they wanted to keep for 2022 to avoid any complicated entry regulations and potential quarantines. For 2023, age and domestic travel only had a very weak relationship, as this year, normality has mostly returned and even respondents of higher age had felt confident again to travel internationally. Such finding could further be explained by the urge many travelers felt after COVID-19 to make up for the “lost years” during the pandemic and the resulting need to finally be able to travel quite carefree to destinations outside their country again. Such phenomenon is supported by a press release of Destatis (2024a), pointing out that in 2023, international travel among Germans increased by 18% compared to 2022, in fact resulting in a 3% increase of international travels compared to the pre-crisis year of 2019.

Although this study has demonstrated the importance of Germany’s domestic tourism especially during the beginning of COVID-19, allowing Germans to keep travelling within borders despite an on-going pandemic, it also revealed that while such domestic destination choice seems to have been associated with higher safety levels and consequently lower risk levels than international travel, more and more Germans preferred travelling across borders over the course of time again. Such finding is in line with FUR’s travel analysis (2024, p. 5), recording a constant increase of international travel among German tourists.

The study revealed age and gender differences among the sample. For gender differences, the findings indicate females to be less risk-taking. By overestimating negative outcomes, female perceive risks higher than male respondents. For age differences, the study’s findings demonstrated differences upon the perception of vulnerability among younger and older respondents, as well as the importance and destination choice of domestic travel upon older respondents.

Inflation, within this study considered as a financial risk, interestingly has not played any significant role towards the respondents’ travel behavior. Neither do most of them plan less

travel activities, nor do they have less travel budget at hand, underlining the importance of travel as it remains one of German's most valuable good. Such findings are supported through FUR's travel analysis (FUR, 2024, p. 13).

5.1 Practical Implications

COVID-19 as a global pandemic has undoubtedly posed numerous challenges for the tourism industry. In response to such threat, German tourists have shown a change in travel behavior and an increasing desire for personal safety, which has ultimately led to new tourist needs, trends and transformations within the industry, to which the tourism sector must respond accordingly. This study's findings offer several learnings and recommendations for the tourism sector, particularly with regards to handling future crises.

Within the German tourism industry, it has been shown that domestic tourism was an appropriate and lower-risk alternative for German tourists during the uncertain periods of the coronavirus years, driven by a high need for safety and risk awareness. German tourists increasingly preferred to travel within the country's borders during the pandemic, as they perceived such travel to be less risky and more convenient compared to international travel. This implies that in future times of disruptions and crises, the tourism industry should further focus on safety and protective measures to attract travelers. By promoting such health-oriented travel offers, the tourism sector could specifically target vulnerable and older travelers who are much concerned about their personal safety.

The results of the study's adaptive behavior demonstrate that German tourists prefer nature-based activities and vacations in an attempt to reduce virus exposure. In fact, over the pandemic years, German tourists have increasingly discovered camping vacations as the perfect combination of such nature tourism and avoiding crowds as a strategy to contain the virus. As the country offers numerous possibilities for respective outdoor activities, it is strongly recommended to further promote Germany as an ideal travel destination for the on-going trend of nature-based vacations.

As a result of the coronavirus pandemic, next to the trend towards nature tourism, the industry is expected to see a trend away from mass tourism towards more sustainable tourism. In fact, Germany can perfectly accommodate and fulfill such trend. While Germany's numerous

sustainable vacation options, from certified accommodation possibilities to climate-friendly transportation, are already being promoted as the country's unique selling point especially by the German National Tourist Board (GNTB) in overseas markets, it is suggested to intensify such promotion of sustainable travels especially for domestic travelers, for whom their car is still the most popular means of transport for domestic trips.

Based on the study's findings of demographic differences, the roles of gender and age proved to be of great importance within a domestic destination decision. As women and older individuals in particular perceived risk higher, domestic tourism was specifically relevant due to higher safety standards as well as the ease of domestic travel. In terms of the role of age, factors such as no language barrier, less travel stress and more flexibility are increasingly important and attract older travelers to a domestic travel. It is therefore important to promote the perks and attractiveness of domestic tourism even after the pandemic through target offers that emphasize these benefits of domestic travel, in order to appeal to these groups and inspire them for a long-term domestic destination choice. In fact, target group-oriented marketing as well as age- and gender-specific offers are of particular relevance for the tourism industry, as the study's findings further indicate that as the pandemic progresses and travel restrictions are gradually lifted, German tourists are once again keen to travel across borders. Through creative and innovative marketing, such as the 'No need to fly' campaign of 2019 or the '(Re)discover Germany' campaign of 2020 by Germany's national railway company 'Deutsche Bahn', travelers could be reminded to discover the beauty of their own country, without the hassle and expense of flying to destinations abroad.

Overall, the results of this study suggest that the industry and its players need to adapt to meet the changing travel behavior of tourists, both in uncertain times and beyond. Due to the volatile character of the tourism industry, flexibility plays a crucial role for the sector to respond quickly to new tourist trends. The industry should therefore focus on offering resilient tourism products that remain attractive even in times of crisis by offering differentiated and target group-oriented products to respond to the changing needs of tourists. The German tourism market offers ideal conditions for meeting and combining the trends of sustainable and nature-based tourism. Thus, targeted and innovative marketing should be strengthened to keep domestic tourism as relevant as it was during the difficult coronavirus years.

5.2 Research Limitations and Future Research

While this thesis' study improves general comprehension of how COVID-19 as a health risk influences travel decisions of German tourists, it still is subject to a number of limitations which should be taken into consideration for future research. This study provides insights into German tourists' travel behavior in times of a global crisis, whose findings are vital in order for the tourism industry to recover and learn.

By nature of a self-administered survey, answer bias, a potential outcome from a respondent's inability to deliver truthful responses, plays a vital role as it could impact the validity of the obtained data (Elston, 2021, p. 1). Such self-reported study may include wrong interpretation from the researcher's side, and especially when asking about past travel behavior or perceptions, wrong recollection from the respondents' side.

Furthermore, within this study, hindsight bias is a phenomenon which might limit this study's findings and may deliver possible interpretation towards this study's results. Hindsight bias, first investigated by Fischhoff (1975) explains how individuals in retrospect think that negative events or outcomes could have been expected or predicted to occur. With such "knew-it-all-along" behavior (Roese & Olson, 1996, p. 198), individuals explain past events by overlaying their memories of it with structure and simplicity, so their responses may not fully reflect their actual pandemic travel behavior and risk perception, as they responded to the survey at a point of time fully knowing the outcomes of the pandemic already.

Being quite limited in its scope, as it solely concentrates on the example of German tourists, the validity of the study's findings could be enhanced by including different nations in researching their vacation decision-making under COVID-19 in future studies. Such cross-cultural comparison could provide a more comprehensive understanding on how risk is perceived among different nations and how it impacts their residents' travel behavior.

For future research, the survey itself should be designed more comprehensively, in order to avoid potential misconceptions. Upon researching the respondents' income level, the participants were given six income categories, always indicating even numbers between the categories, so it is not exactly clear whether respondents who earn an even number of income down to the cent selected the lower or higher income group. Such unclear categories may have impacted research concerning income.

BIBLIOGRAPHY

- Aithal, A., & Aithal, P. S. (2020). Development and Validation of Survey Questionnaire & Experimental Data – A Systematical Review-based Statistical Approach. *International Journal of Management, Technology, and Social Sciences*, 5(2), 233–251. <https://doi.org/10.47992/IJMTS.2581.6012.0116>
- Arroyo, P., & Solís, C. (2021). Framing communication messages to promote covid-19 protective behaviors in mexico: An application of protection motivation theory. *Journal of Behavior, Health & Social Issues*, 13(3), 30–44. <http://dx.doi.org/10.22201/fesi.20070780e.2021.13.3.77055>
- Balli, F., Uddin, G. S., & Shahzad, S. J. H. (2019). Geopolitical risk and tourism demand in emerging economies. *Tourism Economics*, 25(6), 997–1005. <https://doi.org/10.1177/1354816619831824>
- Bauer, R. A. (2000). Consumer behavior as risk taking. In M. J. Baker, *Marketing: Critical Perspectives on Business and Management* (S. 13–21). Routledge.
- Bhati, A. S., Mohammadi, Z., Agarwal, M., Kamble, Z., & Donough-Tan, G. (2020). Motivating or manipulating: The influence of health-protective behaviour and media engagement on post-COVID-19 travel. *Current Issues in Tourism*, 24(15), 2088–2092. <https://doi.org/10.1080/13683500.2020.1819970>
- BMG. (2024). *Chronik zum Coronavirus SARS-CoV-2 | Maßnahmen | BMG*. <https://www.bundesgesundheitsministerium.de/coronavirus/chronik-coronavirus>
- BMWK. (2024a). *Tourismus*. <https://www.bmwk.de/Redaktion/DE/Dossier/tourismus.html>
- BMWK. (2024b). *Tourismus—Bedeutsam für Wachstum und Beschäftigung in Deutschland*. <https://www.bmwk.de/Redaktion/DE/Dossier/tourismus.html>
- Bryman, A., & Bell, E. (2015). *Business Research Methods* (4th Edition). Oxford University Press.
- Burnette, J. L., & Williams, L. J. (2005). Structural Equation Modeling (SEM): An Introduction to Basic Techniques and Advanced Issues. In E. F. Holton & R. A. Swanson, *Research in Organizations: Foundations and Methods of Inquiry* (1st Edition, S. 143–160). Berrett-Koehler Publishers.
- Byrnes, J., Miller, D., & Schafer, W. (1999). Gender differences in risk taking: A meta-analysis. *Psychol Bull*, 125, 367–383. <https://doi.org/10.1037//0033-2909.125.3.367>
- Chew, E. Y. T., & Jahari, S. A. (2014). Destination image as a mediator between perceived risks and revisit intention: A case of post-disaster Japan. *Tourism Management*, 40, 382–393. <https://doi.org/10.1016/j.tourman.2013.07.008>

- Chien, P. M., Sharifpour, M., Ritchie, B. W., & Watson, B. (2017). Travelers' Health Risk Perceptions and Protective Behavior: A Psychological Approach. *Journal of Travel Research*, 56(6), 744–759. <https://doi.org/10.1177/0047287516665479>
- Çınar, K., Kavacık, S. Z., Bişkin, F., & Çınar, M. (2022). Understanding the Behavioral Intentions about Holidays in the Shadow of the COVID-19 Pandemic: Application of Protection Motivation Theory. *Healthcare*, 10(9), 21. <https://doi.org/10.3390/healthcare10091623>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd Edition). L. Erlbaum Associates.
- Cui, F., Liu, Y., Chang, Y., Duan, J., & Li, J. (2016). An overview of tourism risk perception. *Natural Hazards*, 82(1), 643–658. <https://doi.org/10.1007/s11069-016-2208-1>
- Decrop, A. (2006). *Vacation Decision Making*. CABI Publishing.
- Destatis. (2024a). *3 % mehr Auslandsreisen im Jahr 2023 als vor der Corona-Pandemie*. Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2024/07/PD24_257_45.html
- Destatis. (2024b). *Reisen: Deutschland, Jahre, Ausgewählte Zielländer/Zielkontinent/Reiseziel*. Statistisches Bundesamt Deutschland - GENESIS-Online. <https://www-genesis.destatis.de/genesis/online?operation=abrufabelleBearbeiten&levelindex=2&levelid=1725198619283&auswahloperation=abrufabelleAuspraegungAuswaehlen&auswahlverzeichnis=ordnungsstruktur&auswahlziel=werteabruf&code=45413-0003&auswahltext=&n>
- Destatis. (2024c). *Reisende, Nichtgereiste, Reisen: Deutschland, Jahre* [Text]. Statistisches Bundesamt Deutschland - GENESIS-Online. <https://www-genesis.destatis.de/genesis/online?operation=abrufabelleBearbeiten&levelindex=1&levelid=1724651705698&auswahloperation=abrufabelleAuspraegungAuswaehlen&auswahlverzeichnis=ordnungsstruktur&auswahlziel=werteabruf&code=45413-0001&auswahltext=&w>
- Dickson, T., & Dolnicar, S. (2004). *No risk, no fun: The role of perceived risk in adventure tourism*. <https://ro.uow.edu.au/commpapers/246>
- Dube, K. (2022). COVID-19 vaccine-induced recovery and the implications of vaccine apartheid on the global tourism industry. *Physics and Chemistry of the Earth (2002)*, 126, 103140. <https://doi.org/10.1016/j.pce.2022.103140>
- Elston, D. M. (2021). Participation bias, self-selection bias, and response bias. *Journal of the American Academy of Dermatology*, S0190962221011294. <https://doi.org/10.1016/j.jaad.2021.06.025>
- Eurostat. (2023). *Tourism statistics—Top destinations*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism_statistics_-_top_destinations

- Ferrín, M. (2022). Reassessing Gender Differences in COVID-19 Risk Perception and Behavior. *Social Science Quarterly*, 103(1), 31–41. <https://doi.org/10.1111/ssqu.13116>
- Fischhoff, B. (1975). Hindsight is not equal to foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty. *Journal of Experimental Psychology*, 1(3), 288–299. <https://doi.org/10.1037/0096-1523.1.3.288>
- Floyd, D. L., Prentice-Dunn, S., & Rogers, R. W. (2000). A Meta-Analysis of Research on Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(2), 407–429. <https://doi.org/10.1111/j.1559-1816.2000.tb02323.x>
- Foroudi, P., H. Tabaghdehi, S. A., & Marvi, R. (2021). The gloom of the COVID-19 shock in the hospitality industry: A study of consumer risk perception and adaptive belief in the dark cloud of a pandemic. *International Journal of Hospitality Management*, 92, 102717. <https://doi.org/10.1016/j.ijhm.2020.102717>
- Fuchs, G., & Reichel, A. (2011). An exploratory inquiry into destination risk perceptions and risk reduction strategies of first time vs. Repeat visitors to a highly volatile destination. *Tourism Management*, 32(2), 266–276. <https://doi.org/10.1016/j.tourman.2010.01.012>
- Fuchs, R., Bolliger-Salzman, H., & Abel, T. (2012). 4.4 Gesundheitsverhalten und Lebensstile. In M. Egger & O. Razum (Hrsg.), *Public Health*. DE GRUYTER. <https://doi.org/10.1515/9783110255416.132>
- FUR. (2021). *Erste ausgewählte Ergebnisse der 51. Reiseanalyse*. https://reiseanalyse.de/wp-content/uploads/2022/11/RA2021_Erste-Ergebnisse.pdf
- FUR. (2024). *Erste ausgewählte Ergebnisse der 54. Reiseanalyse*. https://reiseanalyse.de/wp-content/uploads/2024/03/RA2024_Erste_Ergebnisse_Broschuere.pdf
- Giusti, G., & Raya, J. M. (2019). The effect of crime perception and information format on tourists' willingness/intention to travel. *Journal of Destination Marketing & Management*, 11, 101–107. <https://doi.org/10.1016/j.jdmm.2018.10.003>
- González-Castro, J. L., Ubillos-Landa, S., Puente-Martínez, A., & Gracia-Leiva, M. (2021). Perceived Vulnerability and Severity Predict Adherence to COVID-19 Protection Measures: The Mediating Role of Instrumental Coping. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.674032>
- Gössling, S., Scott, D., & Hall, C. M. (2021). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>
- Götz, F. M., Gvirtz, A., Galinsky, A. D., & Jachimowicz, J. M. (2020). How Personality and Policy Predict Pandemic Behavior: Understanding Sheltering-in-Place in 55 Countries at the Onset of COVID-19. *American Psychologist*, 76(1), 39–49. <http://dx.doi.org/10.1037/amp0000740>

- Hajibaba, H., Gretzel, U., Leisch, F., & Dolnicar, S. (2015). Crisis-resistant tourists. *Annals of Tourism Research*, 53, 46–60. <https://dx.doi.org/10.1016/j.annals.2015.04.001>
- Harris, C. R., & Jenkins, M. (2006). Gender Differences in Risk Assessment: Why do Women Take Fewer Risks than Men? *Judgment and Decision Making*, 1(1), 48–63. <https://doi.org/10.1017/S1930297500000346>
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Sage.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind: intercultural cooperation and its importance for survival* (Revised and expanded third edition). McGraw-Hill.
- Holton, E. F., & Burnett, M. (2005). The Basics of Quantitative Research. In *Research in Organizations: Foundations and Methods of Inquiry* (1st Edition, S. 29–44). Berrett-Koehler Publishers.
- ICU. (2014). *How do Germans tick? Intercultural Handbook Germany*. ICUnet.AG. https://www.mpi-muenster.mpg.de/171064/how_do_germans_tick.pdf
- Janmaimool, P. (2017). Application of Protection Motivation Theory to Investigate Sustainable Waste Management Behaviors. *Sustainability*, 9(7). <https://doi.org/10.3390/su9071079>
- Jiang, X., Qin, J., Gao, J., & Gossage, M. G. (2022). *The mediation of perceived risk's impact on destination image and travel intention: An empirical study of Chengdu, China during COVID-19*. Shenzhen University, China. <https://doi.org/10.1371/journal.pone.0261851>
- Karl, M. (2018). Risk and Uncertainty in Travel Decision-Making: Tourist and Destination Perspective. *Journal of Travel Research*, 57(1), 129–146. <https://doi.org/10.1177/0047287516678337>
- Karl, M., Muskat, B., & Ritchie, B. W. (2020). Which travel risks are more salient for destination choice? An examination of the tourist's decision-making process. *Journal of Destination Marketing & Management*, 18, 100487. <https://doi.org/10.1016/j.jdmm.2020.100487>
- Karl, M., & Schmude, J. (2017). Understanding the role of risk (perception) in destination choice: A literature review and synthesis. *Tourism: An International Interdisciplinary Journal*, 65(2), 138–155. <https://hrcak.srce.hr/file/270900>
- Kim, Y., Park, I., & Kang, S. (2018). Age and gender differences in health risk perception. *Central European Journal of Public Health*, 26(1), 54–59. <https://doi.org/10.21101/cejph.a4920>

- Kozak, M., Crotts, J. C., & Law, R. (2007). The impact of the perception of risk on international travellers. *International Journal of Tourism Research*, 9(4), 233–242. <https://doi.org/10.1002/jtr.607>
- Kurniawati, R., & Fyall, A. (2023). Risk Perception and Risk Reduction Strategies in Travel Decisions: A Literature-Based Framework. In D. Entas (Hrsg.), *Proceedings of the 1st International Hospitality, Travel and Event Conference (IHTREC 2023)* (Bd. 244, S. 83–95). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-170-8_9
- Lahiri, A., Jha, S. S., Chakraborty, A., Dobe, M., & Dey, A. (2021). Role of Threat and Coping Appraisal in Protection Motivation for Adoption of Preventive Behavior During COVID-19 Pandemic. *Frontiers in Public Health*, 9, 678566. <https://doi.org/10.3389/fpubh.2021.678566>
- Law, R. (2006). The perceived impact of risks on travel decisions. *International Journal of Tourism Research*, 8(4), 289–300. <https://doi.org/10.1002/jtr.576>
- Lepp, A., & Gibson, H. (2003). Tourist roles, perceived risk and international tourism. *Annals of Tourism Research*, 30(3), 606–624. [https://doi.org/10.1016/S0160-7383\(03\)00024-0](https://doi.org/10.1016/S0160-7383(03)00024-0)
- Lifshitz, R., Bachner, Y. G., & Nimrod, G. (2023). Later Life as a Daring Experience: Factors Associated with Older Adults' Risk Perception. *Journal of Gerontological Social Work*, 66(6), 793–810. <https://doi.org/10.1080/01634372.2023.2177920>
- Litvin, S. W., Crotts, J. C., & Hefner, F. L. (2004). Cross-cultural tourist behaviour: A replication and extension involving Hofstede's uncertainty avoidance dimension. *International Journal of Tourism Research*, 6(1), 29–37. <https://doi.org/10.1002/jtr.468>
- Lo, A. S., Law, R., & Cheung, C. (2011). Segmenting Leisure Travelers by Risk Reduction Strategies. *Journal of Travel & Tourism Marketing*, 28(8), 828–839. <https://doi.org/10.1080/10548408.2011.623044>
- Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as Feelings. *Psychological Bulletin*, 127(2), 267–286. <https://doi.org/10.1037/0033-2909.127.2.267>
- Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of Experimental Social Psychology*, 19(5), 469–479. [https://doi.org/10.1016/0022-1031\(83\)90023-9](https://doi.org/10.1016/0022-1031(83)90023-9)
- Manrai, L. A., & Manrai, A. K. (2011). Cross-Cultural and Cross-National Consumer Research in the Global Economy of the Twenty-First Century. *Journal of International Consumer Marketing*, 23(3–4), 167–180. <https://doi.org/DOI:10.1080/08961530.2011.578056>
- Mäser, B., & Weiermair, K. (1998). Travel Decision-Making: From the Vantage Point of Perceived Risk and Information Preferences. *Journal of Travel & Tourism Marketing*, 7(4). https://doi.org/10.1300/J073v07n04_06

- Milne, S., Sheeran, P., & Orbell, S. (2000). Prediction and Intervention in Health-Related Behavior: A Meta-Analytic Review of Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(1), 106–143. <https://doi.org/10.1111/j.1559-1816.2000.tb02308.x>
- Neuburger, L., & Egger, R. (2021). Travel risk perception and travel behaviour during the COVID-19 pandemic 2020: A case study of the DACH region. *Current Issues in Tourism*, 24(7), 1003–1016. <https://doi.org/10.1080/13683500.2020.1803807>
- Nolte, J., & Hanoch, Y. (2024). Adult age differences in risk perception and risk taking. *Current Opinion in Psychology*, 55, 101746. <https://doi.org/10.1016/j.copsy.2023.101746>
- Park, K., & Reisinger, Y. (2010). Differences in the Perceived Influence of Natural Disasters and Travel Risk on International Travel. *Tourism Geographies*, 12(1), 1–24. <https://doi.org/10.1080/14616680903493621>
- Peluso, A. M., & Pichierri, M. (2021). Effects of socio-demographics, sense of control, and uncertainty avoidability on post-COVID-19 vacation intention. *Current Issues in Tourism*, 24(19), 2755–2767. <https://doi.org/10.1080/13683500.2020.1849050>
- Perić, G., Dramićanin, S., & Conić, M. (2021). The impact of Serbian tourists' risk perception on their travel intentions during the COVID-19 pandemic. *European Journal of Tourism Research*, 27(2705). <https://doi.org/10.54055/ejtr.v27i.2125>
- Perpiña, L., Prats, L., & Camprubí, R. (2017). Investigating Perceived Risks in International Travel. *Tourismos: An International Multidisciplinary Journal of Tourism*, 12(2), 101–128. <https://dugi-doc.udg.edu/bitstream/handle/10256/16445/InvestigatingPerceived-ByNcNd.pdf?sequence=1&isAllowed=y>
- Queirós, A., Faria, D., & Almeida, F. (2017). *Strengths And Limitations Of Qualitative And Quantitative Research Methods*. <https://doi.org/10.5281/ZENODO.887089>
- Rather, R. A. (2021). Demystifying the effects of perceived risk and fear on customer engagement, co-creation and revisit intention during COVID-19: A protection motivation theory approach. *Journal of Destination Marketing & Management*, 20. <https://doi.org/10.1016/j.jdmm.2021.100564>
- Reisinger, Y. (2009). *International tourism: Cultures and behavior* (First). Butterworth-Heinemann.
- Reisinger, Y., & Mavondo, F. (2005). Travel Anxiety and Intentions to Travel Internationally: Implications of Travel Risk Perception. *Journal of Travel Research*, 43(3), 212–225. <https://doi.org/10.1177/0047287504272017>
- Reisinger, Y., & Mavondo, F. (2006). Cultural Differences in Travel Risk Perception. *Journal of Travel & Tourism Marketing*, 20(1), 13–31. https://doi.org/10.1300/J073v20n01_02

- Roehl, W. S., & Fesenmaier, D. R. (1992). Risk Perceptions and Pleasure Travel: An Exploratory Analysis. *Journal of Travel Research*, 30(4), 17–26.
<https://doi.org/10.1177/004728759203000403>
- Roese, N. J., & Olson, J. M. (1996). Counterfactuals, Causal Attributions, and the Hindsight Bias: A Conceptual Integration. *Journal of Experimental Social Psychology*, 32(3), 197–227. <https://doi.org/10.1006/jesp.1996.0010>
- Rogers, R. W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change. *The Journal of Psychology: Interdisciplinary and Applied*, 91(1), 93–114.
<https://doi.org/10.1080/00223980.1975.9915803>
- Rogers, R. W. (1983). Cognitive and Physiological Processes in Fear Appeals and Attitude Change: A Revised Theory of Protection Motivation. In J. R. Cacioppo & R. E. Petty, *Social Psychology: A sourcebook* (S. 153–176). Guilford Press.
- Rosi, A., Van Vugt, F. T., Lecce, S., Ceccato, I., Vallarino, M., Rapisarda, F., Vecchi, T., & Cavallini, E. (2021). Risk Perception in a Real-World Situation (COVID-19): How It Changes From 18 to 87 Years Old. *Frontiers in Psychology*, 12, 646558.
<https://doi.org/10.3389/fpsyg.2021.646558>
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (Ninth edition). Pearson Education.
- Seabra, C., Dolnicar, S., Abrantes, J. L., & Kastenholz, E. (2013). Heterogeneity in risk and safety perceptions of international tourists. *Tourism Management*, 36, 502–510.
<https://doi.org/10.1016/j.tourman.2012.09.008>
- Shah Alam, S., Masukujjaman, M., Omar, N. A., Mohamed Makhbul, Z. K., & Helmi Ali, M. (2023). Protection Motivation and Travel Intention after the COVID-19 Vaccination: Fear and Risk Perception. *Journal of Quality Assurance in Hospitality & Tourism*, 24(6), 930–956. <https://doi.org/10.1080/1528008X.2022.2089948>
- Sharifpour, M., Walters, G., & Ritchie, B. W. (2014). Risk perception, prior knowledge, and willingness to travel: Investigating the Australian tourist market's risk perceptions towards the Middle East. *Journal of Vacation Marketing*, 20(2), 111–123.
<https://doi.org/10.1177/1356766713502486>
- Sirakaya, E., & Woodside, A. G. (2005). Building and testing theories of decision making by travellers. *Tourism Management*, 26(6), 815–832.
<https://doi.org/10.1016/j.tourman.2004.05.004>
- Sjöberg, L., Moen, B.-E., & Rundmo, T. (2004). *Explaining risk perception. An evaluation of the psychometric paradigm in risk perception research* (S. 1–33). Norwegian University of Science and Technology. C Rotunde Publikasjoner.
- Solomon, M., Bamossy, G., Askegaard, S., & Hogg, M. K. (2006). *Consumer Behavior—A European Perspective* (Third). Pearson Education.

- Søndergaard, M. (1994). Research Note: Hofstede's Consequences – A Study of Reviews, Citations and Replications. *Organization Studies*, 15(3), 447–456. <https://doi.org/doi:10.1177/01708406940150030>
- Sönmez, S. F., & Graefe, A. R. (1998a). Determining Future Travel Behavior from Past Travel Experience and Perceptions of Risk and Safety. *Journal of Travel Research*, 37(2), 171–177. <https://doi.org/10.1177/004728759803700209>
- Sönmez, S. F., & Graefe, A. R. (1998b). Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research*, 25(1), 112–144. [https://doi.org/10.1016/S0160-7383\(97\)00072-8](https://doi.org/10.1016/S0160-7383(97)00072-8)
- Steinhauser, C. (2023). Auswirkungen der Covid-19-Pandemie auf das Reiseverhalten der Deutschen 2020. In *Transformation im Tourismus: Perspektiven für eine resiliente und nachhaltige Erlebnisökonomie* (Bd. 26). Erich Schmidt Verlag. <https://esv-elibrary.de/book/99.160005/9783503211876>
- Stiftung für Zukunftsfragen. (2023). Wie werden wir reisen? „Beim Urlaub geht es um das Gefühl einer heilen Welt“. *PVS einblick*, 02/23. https://www.pvs-einblick.de/fileadmin/pvs-einblick/ausgaben/2023-02/PVSEinblick_02_2023_Magazin_Ansicht.pdf
- Stiftung für Zukunftsfragen. (2024, Februar 6). *Reiseziele 2024*. Tourismusanalyse - Stiftung für Zukunftsfragen. <https://www.tourismusanalyse.de/2024/reiseziele-2024/>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Tsaur, S.-H., Tzeng, G.-H., & Wang, K.-C. (1997). Evaluating tourist risks from fuzzy perspectives. *Annals of Tourism Research*, 24(4), 796–812. [https://doi.org/10.1016/S0160-7383\(97\)00059-5](https://doi.org/10.1016/S0160-7383(97)00059-5)
- Unesco. (2024). *Kultur und Natur | Deutsche UNESCO-Kommission*. <https://www.unesco.de/kultur-und-natur/welterbe/welterbe-deutschland>
- UNWTO. (2020). *Tourism and COVID-19 – unprecedented economic impacts*. <https://www.unwto.org/tourism-and-covid-19-unprecedented-economic-impacts>
- Walters, G., Wallin, A., & Hartley, N. (2019). The Threat of Terrorism and Tourist Choice Behavior. *Journal of Travel Research*, 58(3), 370–382. <https://doi.org/10.1177/0047287518755503>
- Weiber, R., & Mühlhaus, D. (2009). *Strukturgleichungsmodellierung*. Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-642-02877-9>
- WHO. (2012). *International travel and health*. <https://www.who.int/publications-detail/9789241580472>

- WHO. (2021). *Health Promotion Glossary of Terms 2021*.
<https://iris.who.int/bitstream/handle/10665/350161/9789240038349-eng.pdf?sequence=1>
- Wolff, K., Larsen, S., & Øgaard, T. (2019). How to define and measure risk perceptions. *Annals of Tourism Research*, 79, Article 102759.
<https://doi.org/10.1016/j.annals.2019.102759>
- Wong, J.-Y., & Yeh, C. (2009). Tourist hesitation in destination decision making. *Annals of Tourism Research*, 36(1), 6–23. <https://doi.org/10.1016/j.annals.2008.09.005>
- Yang, B. (2005). Factor Analysis Methods. In E. F. Holton & R. A. Swanson, *Research in Organizations: Foundations and Methods of Inquiry* (1st ed, S. 181–200). Berrett-Koehler Publishers.
- Yang, E. C. L., & Nair, V. (2014). Tourism at Risk: A Review of Risk and Perceived Risk in Tourism. *Asia-Pacific Journal of Innovation in Hospitality and Tourism (APJIHT)*, 3(2), 13.
<https://doi.org/10.7603/s40930-014-0013-z>
- Zenker, S., & Kock, F. (2020). The coronavirus pandemic – A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164.
<https://doi.org/10.1016/j.tourman.2020.104164>
- Zheng, D., Luo, Q., & Ritchie, B. W. (2021). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic ‘travel fear’. *Tourism Management*, 83, 104261.
<https://doi.org/10.1016/j.tourman.2020.104261>
- Zhou, B., Liu, S., Wang, L., Wang, L., & Wang, Y. (2022). COVID-19 risk perception and tourist satisfaction: A mixed-method study of the roles of destination image and self-protection behavior. *Frontiers in Psychology*, 13, 1001231.
<https://doi.org/10.3389/fpsyg.2022.1001231>
- Žuromskaitė, B., Nagaj, R., & Dačiulytė, R. (2018). Source of Information on the Perceived Risk and Safety in the Tourism Industry: A comparative analysis of Polish and Lithuanian students. *Proceedings of the 5th international scientific conference on „Modern Economics“*, 266–273.
http://www.wneiz.pl/katedry/makro/proceedings/Vigo_Proceedings_2.pdf

APPENDICES

Appendix 1. Translated Questionnaire

Appendix 2. Factor Analyses

Appendix 3. Correlation Analyses

Appendix 4. Independent Samples T-Tests

Appendix 1. Translated Questionnaire

Dear participant,

my name is Luisa Laura Spriestersbach and I am studying International Business Management at Seinäjoki University of Applied Sciences in Finland. As part of my master's thesis, I am conducting a survey in which I would like to explore the influence of risk perception during COVID-19 on travel behavior and travel decisions of German tourists with regard to domestic tourism.

This survey is anonymous. The response data collected from you will be used exclusively for academic research as part of my master's thesis. It will be shared with Seinäjoki University of Applied Sciences for academic purposes only. Completing the survey should take about 10-12 minutes of your time.

Thank you very much for taking the time - your participation is greatly appreciated.

Kind regards,

Luisa Laura Spriestersbach

1. What gender do you identify as?
 - Male
 - Female
 - Diverse

2. Which age group do you belong to?
 - 17-25 years
 - 26-35 years
 - 36-45 years
 - 46-55 years
 - 56-65 years
 - 66-75 years
 - 76 years and older

3. Which state in Germany do you live in?
 - Baden-Württemberg
 - Bavaria
 - Berlin
 - Brandenburg

- Bremen
- Hamburg
- Hesse
- Mecklenburg-Western Pomerania
- Lower Saxony
- North Rhine-Westphalia
- Rhineland-Palatinate
- Saarland
- Saxony
- Saxony-Anhalt
- Schleswig-Holstein
- Thuringia

4. What is your highest level of education?

- No qualification
- Secondary school certificate
- Secondary school leaving certificate (intermediate school leaving certificate, advanced technical college certificate, etc.)
- General higher education entrance qualification (A-Levels), entrance qualification for universities of applied sciences
- Completed vocational training
- University degree (Bachelor, Master, diploma, state examination)
- Doctorate

5. What is your monthly gross income level?

Please include your gross income from work, business, pension, dividends, interest, benefits, social benefits, unemployment benefits and other income.

- Below 1000€
- 1000 - 2000€
- 2000 - 3000€
- 3000 - 4000€
- 4000 - 5000€
- More than 5000€

6. How many vacations do you usually plan per year?

- 0
- 1-2
- 3-4
- More than 4

7. How many of those take place in Germany?

- 0
- 1

- 2
- 3
- 4
- More than 4

8. What is your general travel budget per person per year?



9. How does your travel budget behave with regard to price increases due to high inflation?

- My travel budget is higher now.
- My travel budget is at the same level as before inflation.
- My travel budget is less now.

10. How is inflation affecting your travel frequency?

- I plan more vacations now.
- I plan the same number of vacations.
- I plan less vacations than before.

11. Do you generally prefer to spend your vacation within borders (Germany) or abroad?

- Within borders
- Abroad

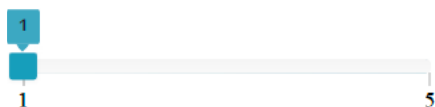
12. Has this preference changed in the pandemic years 2020 and 2021 due to travel restrictions?

Please note that there were severe travel restrictions in 2020-2021, which were largely eased in 2022 and completely lifted in 2023.

- Yes, during the pandemic years I felt safer traveling within Germany.
- No, I still preferred travelling abroad.

13. How experienced are you on international travel?

Please answer the question on a scale of 1 to 5. Select 1 if you are completely inexperienced, 2 if you are somewhat inexperienced, 3 if you are neither inexperienced nor experienced, 4 if you are somewhat experienced and 5 if you are extremely experienced.



14. Where did you spend your main in the following years?

Please note that there were severe travel restrictions in 2020-2021, which were largely eased in 2022 and completely lifted in 2023.

| | Within Germany | Abroad | At home |
|------|-----------------------|-----------------------|-----------------------|
| 2020 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2021 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2022 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2023 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

15. What is your main travel purpose on domestic trips?

Multiple answers are possible

Visiting friends and relatives

Leisure

Business

Combination of business and leisure travel

16. What is your main travel purpose on foreign trips?

Multiple answers are possible

Visiting friends and relatives

Leisure and recreation trip

Business trip

Combination of business and leisure travel

17. How do you usually travel?

Multiple answers are possible

Alone

Family

Friends

Partner

Tour groups

18. What must or should a domestic vacation offer you?

Please rate on a scale 1 (not at all relevant) to 5 (very relevant):

| | 1 | 2 | 3 | 4 | 5 |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Recreation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active Holidays | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Culture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Education | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Family-oriented offers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Accessibility | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | 1 | 2 | 3 | 4 | 5 |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| No language barrier | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Short distance to own residence | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. What speaks for Germany as an attractive travel destination?

Please rate on a scale 1 (not relevant) to 5 (very relevant):

| | 1 | 2 | 3 | 4 | 5 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Less travel stress | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shorter travel time | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Great infrastructure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Easy travel with kids and/or pets | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Diverse landscape (mountains, sea, lakes,...) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Price-performance ratio | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No language barrier | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No additional travel insurance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

20. How do you mainly travel on domestic trips?

Please rate the following transportation options on a scale from 1 (very rarely) to 5 (very often):

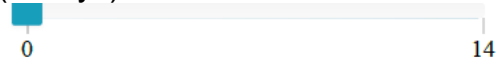
| | 1 | 2 | 3 | 4 | 5 |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| By car | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By train | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By bus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By aircraft | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| By ridesharing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

21. How do you usually lodge on domestic trips?

Please rate the following lodging options on a scale from 1 (very rarely) to 5 (very often):

| | 1 | 2 | 3 | 4 | 5 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| In hotels | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| In apartments/Airbnb | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| In hostels | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| On camping grounds | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| At family and friends | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

22. Please indicate your usual length of stay on a domestic trip on the following scale (in days):



The pandemic experience was new and very drastic for everyone, with all the restrictions and measures that were in place. There were severe travel restrictions, especially in 2020-2021, which were eased in 2022 and completely eliminated in 2023. Please answer the following section with regard to your travel behavior during and after COVID-19.

23. How severely did you perceive the risk of COVID-19 on a scale of 1 (not severe at all) to 5 (very severe)?

| 1 | 2 | 3 | 4 | 5 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

24. How did your perception of the pandemic influence your travel decision in the following years?

Please note that there were severe travel restrictions in 2020-2021, which were largely eased in 2022 and completely lifted in 2023. If the following statements do not apply to any of the years indicated, select "not applicable" to continue.

| | 2020 | 2021 | 2022 | 2023 | Not applicable |
|---|------|------|------|------|----------------|
| I kept my initial travel plans. | | | | | |
| I adjusted my travel plans during the pandemic. | | | | | |
| Instead of travelling internationally I travelled domestically. | | | | | |
| I cancelled existing travel plans during the pandemic. | | | | | |
| I did not plan any travel activities during the pandemic. | | | | | |

25. How comfortable did you feel traveling during the pandemic on a scale from 1 (not comfortable at all) to 5 (very comfortable)?

| 1 | 2 | 3 | 4 | 5 |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

26. Did you perceive international travel with a higher risk level than domestic travel during COVID-19?

Yes

No

27. Did the perception of a higher risk when traveling abroad lead you to opt for a domestic vacation during the pandemic years?

Yes

No

Travel is associated with a variety of travel-related risks. Travel-related risks include:

Financial risks: Wasting money if the trip does not meet expectations; risk of additional, unforeseen costs

Destination risks: Potentially negative situations and local risks at the destination itself, including high crime rates, political unrest, public safety, prevailing transportation infrastructure, transportation safety, weather conditions

Travel risks: General risks on the way to and from the destination itself, e.g. type of transportation and travel organization

Time risks: Loss or waste of time during the trip due to time-consuming tourist activities and waiting times, such as check-ins and flight delays

Health risks: potential for illness, physical injury or danger at the destination or during arrival/departure

Psychological risks: travel (experience) does not match individual self-image and personality; fear that travel decision will affect others' opinion of you

Cultural risks: Occurrence of language barriers, cultural differences and resulting misunderstandings

28. How present did you feel the following risks were on **domestic trips** during COVID-19?

Please rate them on a scale from 1 (not present at all) to 5 (extremely present):

| | 1 | 2 | 3 | 4 | 5 |
|---------------------|---|---|---|---|---|
| Financial risks | 0 | 0 | 0 | 0 | 0 |
| Destination risks | 0 | 0 | 0 | 0 | 0 |
| Travel risks | 0 | 0 | 0 | 0 | 0 |
| Time risks | 0 | 0 | 0 | 0 | 0 |
| Health risks | 0 | 0 | 0 | 0 | 0 |
| Psychological risks | 0 | 0 | 0 | 0 | 0 |
| Cultural risks | 0 | 0 | 0 | 0 | 0 |

29. How present did you feel the following risks were on **foreign trips** during COVID-19?

Please rate them on a scale from 1 (not present at all) to 5 (extremely present):

| | 1 | 2 | 3 | 4 | 5 |
|---------------------|---|---|---|---|---|
| Financial risks | 0 | 0 | 0 | 0 | 0 |
| Destination risks | 0 | 0 | 0 | 0 | 0 |
| Travel risks | 0 | 0 | 0 | 0 | 0 |
| Time risks | 0 | 0 | 0 | 0 | 0 |
| Health risks | 0 | 0 | 0 | 0 | 0 |
| Psychological risks | 0 | 0 | 0 | 0 | 0 |
| Cultural risks | 0 | 0 | 0 | 0 | 0 |

30. Which risk do you perceive the **most threatening**?

Please rank the seven travel-specific risks in descending order of threat (1=most threatening; 7=least threatening):

| | 1 | 2 | 3 | 4 | 5 |
|---------------------|---|---|---|---|---|
| Financial risks | 0 | 0 | 0 | 0 | 0 |
| Destination risks | 0 | 0 | 0 | 0 | 0 |
| Travel risks | 0 | 0 | 0 | 0 | 0 |
| Time risks | 0 | 0 | 0 | 0 | 0 |
| Health risks | 0 | 0 | 0 | 0 | 0 |
| Psychological risks | 0 | 0 | 0 | 0 | 0 |
| Cultural risks | 0 | 0 | 0 | 0 | 0 |

31. Which risk has the **highest influence** on your travel behavior?

Please rank the seven travel-specific risks in descending order of influence (1=most influential; 7=least influential):

| | 1 | 2 | 3 | 4 | 5 |
|-------------------|---|---|---|---|---|
| Financial risks | 0 | 0 | 0 | 0 | 0 |
| Destination risks | 0 | 0 | 0 | 0 | 0 |

| | | | | | |
|---------------------|---|---|---|---|---|
| Travel risks | 0 | 0 | 0 | 0 | 0 |
| Time risks | 0 | 0 | 0 | 0 | 0 |
| Health risks | 0 | 0 | 0 | 0 | 0 |
| Psychological risks | 0 | 0 | 0 | 0 | 0 |
| Cultural risks | 0 | 0 | 0 | 0 | 0 |

32. In what way did financial concerns influence your travel decision in the following years?

Please note that there were severe travel restrictions in 2020-2021, which were largely eased in 2022 and completely lifted in 2023. If the following statements do not apply to any of the years indicated, select "not applicable" to continue.

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| I travelled less than I did before the pandemic. | 0 | 0 | 0 | 0 | 0 |
| Instead of traveling abroad, I opted for a domestic trip. | 0 | 0 | 0 | 0 | 0 |
| Instead of booking hotel accommodation, I stayed in vacation apartments or with friends and family. | 0 | 0 | 0 | 0 | 0 |
| I didn't go on any vacations for financial reasons. | 0 | 0 | 0 | 0 | 0 |
| Financial concerns have changed my travel behavior. | 0 | 0 | 0 | 0 | 0 |

33. Did you belong to a vulnerable circle/risk group during COVID-19 (due to lack of vaccination, pre-existing/underlying health condition, high age,...)

Yes

No

34. How vulnerable did you personally feel by COVID-19?

Please rate on a scale from 1 (not vulnerable at all) to 5 (very vulnerable):

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |

35. Do you feel less vulnerable to a threat like COVID-19 on domestic travel compared to international travel?

Yes

No

36. Please rate the extent to which the following statements apply to you.

Please answer on a scale from 1 (strongly disagree) to 5 (strongly agree):

| | 1 | 2 | 3 | 4 | 5 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Sneezing/coughing without covering one's mouth bothers me a lot. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I get anxious around people that are sick. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Whenever an illness is around, I get it. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am more likely to catch a disease than people around me. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I prefer to wash my hands after shaking someone else's. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I generally feel susceptible to colds, flu and infectious diseases. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have been susceptible to infectious diseases in the past. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

37. Please rate the extent to which the following statements apply to you.

Please answer on a scale from 1 (strongly disagree) to 5 (strongly agree):

| | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| I changed my preferred transportation mode in order to avoid public transportation/as a response to social distancing. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I decided to travel less for non-essential purposes in order to reduce virus exposure. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I moved my planned trips to less frequent travel times in order to minimize potential virus exposure. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I preferred outdoor activities over indoor activities during my leisure travel to mitigate exposure. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | |
|---|---|---|---|---|---|
| I checked local hygiene and safety measures ahead of booking a trip. | 0 | 0 | 0 | 0 | 0 |
| I integrated recommended health and safety measures/precautions such as wearing masks, using hand sanitizer and social distancing during my travel. | 0 | 0 | 0 | 0 | 0 |
| I searched for and integrated latest information regarding travel guidelines and safety measures for my travel decision. | 0 | 0 | 0 | 0 | 0 |

Appendix 2. Factor Analyses

Table 8. Communalities of Adaptive Behavior Items

| | Initial | Extraction |
|---|---------|------------|
| I changed my preferred transportation mode in order to avoid public transportation/as a response to social distancing. | .344 | .318 |
| I decided to travel less for non-essential purposes in order to reduce virus exposure. | .455 | .463 |
| I moved my planned trips to less frequent travel times in order to minimize potential virus exposure. | .407 | .439 |
| I preferred outdoor activities over indoor activities during my leisure travel to mitigate exposure. | .399 | .503 |
| I checked local hygiene and safety measures ahead of booking a trip. | .333 | .217 |
| I integrated recommended health and safety measures/precautions such as wearing masks, using hand sanitizer and social distancing during my travel. | .387 | .147 |
| I searched for and integrated latest information regarding travel guidelines and safety measures for my travel decision. | .482 | .169 |

Extraction Method: Maximum Likelihood.

Table 9. Factor Matrix of Adaptive Behavior Items

| | Factor 1 |
|---|-------------|
| I changed my preferred transportation mode in order to avoid public transportation/as a response to social distancing. | .563 |
| I decided to travel less for non-essential purposes in order to reduce virus exposure. | .681 |
| I moved my planned trips to less frequent travel times in order to minimize potential virus exposure. | .663 |
| I preferred outdoor activities over indoor activities during my leisure travel to mitigate exposure. | .709 |
| I checked local hygiene and safety measures ahead of booking a trip. | .466 |
| I integrated recommended health and safety measures/precautions such as wearing masks, using hand sanitizer and social distancing during my travel. | .384 |
| I searched for and integrated latest information regarding travel guidelines and safety measures for my travel decision. | .412 |

Extraction Method: Maximum Likelihood.

a. 1 factors extracted. 6 iterations required.

Table 10. Communalities of the Travel-Specific Risks on Foreign Trips

| | Initial | Extraction |
|---------------------|---------|------------|
| Financial risks | .481 | .509 |
| Destination risks | .571 | .580 |
| Travel risks | .619 | .688 |
| Time risks | .440 | .491 |
| Health risks | .409 | .438 |
| Psychological risks | .427 | .431 |
| Cultural risks | .314 | .318 |

Extraction Method: Principal Axis Factoring.

Table 11. Factor Matrix of the Travel-Specific Risks on Foreign Trips

| | Factor 1 |
|---------------------|-------------|
| Financial risks | .713 |
| Destination risks | .762 |
| Travel risks | .830 |
| Time risks | .701 |
| Health risks | .662 |
| Psychological risks | .656 |
| Cultural risks | .564 |

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 5 iterations required.

Appendix 3. Correlation Analyses

Table 12. Correlation of Adaptive Behavior and Domestic Travel

| | | Adaptive Behavior |
|--------------------------|---------------------|-------------------|
| Adaptive Behavior | Pearson Correlation | -- |
| | N | 204 |
| Domestic Travel Decision | Pearson Correlation | .127* |
| | Sig. (1-tailed) | .035 |
| | N | 204 |

Table 13. Correlation of Travel-Specific Risks and Domestic Travel Choice

| | | Travel Risks | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--------------|---------------------|--------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Travel Risks | Pearson Correlation | -- | | | | |

| | | Travel Risks | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|-----------------------------------|---------------------|--------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| | N | 204 | | | | |
| Domestic Travel Choice 2020 | Pearson Correlation | .117* | -- | | | |
| | Sig. (1-tailed) | .047 | | | | |
| | N | 204 | 204 | | | |
| Domestic Travel Choice 2021 | Pearson Correlation | .045 | .450** | -- | | |
| | Sig. (1-tailed) | .259 | <.001 | | | |
| | N | 204 | 204 | 204 | | |
| Domestic Travel Choice 2022 | Pearson Correlation | .138* | .237** | .432** | -- | |
| | Sig. (1-tailed) | .024 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Pearson Correlation | .041 | .280** | .232** | .394** | -- |
| | Sig. (1-tailed) | .278 | <.001 | <.001 | <.001 | |
| | N | 204 | 204 | 204 | 204 | 204 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 14. Correlation of Perceived Financial Risks and Domestic Travel Decision

| | | How present did you feel the financial risks were on foreign trips during COVID- 19? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--|-------------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| How present did you feel the fi- nancial risks were on foreign trips during COVID-19? | Spearman's rho Correlation | -- | | | | |
| | N | 204 | | | | |

| | | How present did you feel the financial risks were on foreign trips during COVID-19? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|-----------------------------|----------------------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Domestic Travel Choice 2020 | Spearman's rho Correlation | -.082 | -- | | | |
| | Sig. (1-tailed) | .121 | | | | |
| | N | 204 | 204 | | | |
| Domestic Travel Choice 2021 | Spearman's rho Correlation | -.007 | .450** | -- | | |
| | Sig. (1-tailed) | .458 | <.001 | | | |
| | N | 204 | 204 | 204 | | |
| Domestic Travel Choice 2022 | Spearman's rho Correlation | -.078 | .237** | .432** | -- | |
| | Sig. (1-tailed) | .135 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Spearman's rho Correlation | -.077 | .280** | .232** | .394** | -- |
| | Sig. (1-tailed) | .137 | <.001 | <.001 | <.001 | |
| | N | 204 | 204 | 204 | 204 | 204 |

** . Correlation is significant at the 0.01 level (1-tailed).

Table 15. Correlation of International Travel Experience and Domestic Travel Decision

| | | How experienced are you on international travel? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--|---------------------|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| How experienced are you on international travel? | Pearson Correlation | -- | | | | |
| | N | 204 | | | | |
| Domestic Travel Choice 2020 | Pearson Correlation | -.177** | -- | | | |
| | Sig. (1-tailed) | .006 | | | | |
| | N | 204 | 204 | | | |

| | | How experi- enced are you on inter- national travel? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--------------------------------|--------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Domestic Travel Choice 2021 | Pearson Correla- tion | -.270** | .450** | -- | | |
| | Sig. (1-tailed) | <.001 | <.001 | | | |
| | N | 204 | 204 | 204 | | |
| Domestic Travel Choice 2022 | Pearson Correla- tion | -.205** | .237** | .432** | -- | |
| | Sig. (1-tailed) | .002 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Pearson Correla- tion | -.176** | .280** | .232** | .394** | -- |
| | Sig. (1-tailed) | .006 | <.001 | <.001 | <.001 | |
| | N | 204 | 204 | 204 | 204 | 204 |

** . Correlation is significant at the 0.01 level (1-tailed).

Table 16. Correlation of Vulnerability and Domestic Travel Decision

| | | How vul- nerable did you per- sonally feel by COVID- 19? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--|--------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| How vulnerable did you person- ally feel by COVID-19? | Pearson Correla- tion | -- | | | | |
| | N | 204 | | | | |
| Domestic Travel Choice 2020 | Pearson Correla- tion | .138* | -- | | | |
| | Sig. (1-tailed) | .024 | | | | |
| | N | 204 | 204 | | | |
| Domestic Travel Choice 2021 | Pearson Correla- tion | .025 | .450** | -- | | |
| | Sig. (1-tailed) | .359 | <.001 | | | |
| | N | 204 | 204 | 204 | | |

| | | How vul- nerable did you per- sonally feel by COVID- 19? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--------------------------------|--------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Domestic Travel Choice 2022 | Pearson Correla- tion | .142* | .237** | .432** | -- | |
| | Sig. (1-tailed) | .022 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Pearson Correla- tion | .039 | .280** | .232** | .394** | -- |
| | Sig. (1-tailed) | .288 | <.001 | <.001 | <.001 | |
| | N | 204 | 204 | 204 | 204 | 204 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 17. Correlation of Income Levels and Domestic Travel Decision

| | | What is your monthly gross in- come level? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|--|-------------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| What is your monthly gross in- come level? | Spearman's rho Correlation | -- | | | | |
| | N | 204 | | | | |
| Domestic Travel Choice 2020 | Spearman's rho Correlation | .095 | -- | | | |
| | Sig. (1-tailed) | .089 | | | | |
| | N | 204 | 204 | | | |
| Domestic Travel Choice 2021 | Spearman's rho Correlation | .072 | .450** | -- | | |
| | Sig. (1-tailed) | .155 | <.001 | | | |
| | N | 204 | 204 | 204 | | |
| Domestic Travel Choice 2022 | Spearman's rho Correlation | .097 | .237** | .432** | -- | |
| | Sig. (1-tailed) | .083 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Spearman's rho Correlation | .032 | .280** | .232** | .394** | -- |

| | What is your monthly gross income level? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|-----------------|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Sig. (1-tailed) | .324 | <.001 | <.001 | <.001 | |
| N | 204 | 204 | 204 | 204 | 204 |

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Table 18. Correlation of Age and Domestic Travel Decision

| | Which age group do you belong to? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 | |
|-----------------------------------|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----|
| Which age group do you belong to? | Spearman's rho Correlation | -- | | | | |
| | N | 204 | | | | |
| Domestic Travel Choice 2020 | Spearman's rho Correlation | .075 | -- | | | |
| | Sig. (1-tailed) | .143 | | | | |
| | N | 204 | 204 | | | |
| Domestic Travel Choice 2021 | Spearman's rho Correlation | .209** | .450** | -- | | |
| | Sig. (1-tailed) | .001 | <.001 | | | |
| | N | 204 | 204 | 204 | | |
| Domestic Travel Choice 2022 | Spearman's rho Correlation | .256** | .237** | .432** | -- | |
| | Sig. (1-tailed) | <.001 | <.001 | <.001 | | |
| | N | 204 | 204 | 204 | 204 | |
| Domestic Travel Choice 2023 | Spearman's rho Correlation | .055 | .280** | .232** | .394** | -- |
| | Sig. (1-tailed) | .219 | <.001 | <.001 | <.001 | |
| | N | 204 | 204 | 204 | 204 | |

*. Correlation is significant at the 0.05 level (1-tailed).

| Which age group do you belong to? | Domestic Travel Choice 2020 | Domestic Travel Choice 2021 | Domestic Travel Choice 2022 | Domestic Travel Choice 2023 |
|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|

** . Correlation is significant at the 0.01 level (1-tailed).

Appendix 4. Independent Samples T-Tests

Table 19. Group Statistics Adaptive Behavior and Destination Choice

| | Travel Decision 2020-2023 | N | Mean | Std. Deviation | Std. Error Mean |
|-------------------|---------------------------------------|----|--------|----------------|-----------------|
| Adaptive Behavior | Group 1 (Solely Domestic Travel) | 25 | 2.5733 | 1.34205 | .26841 |
| | Group 2 (Solely International Travel) | 52 | 2.1218 | .99241 | .13762 |

Table 20. Independent Samples Test Adaptive Behavior and Destination Choice

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|-------------------|-------------------------|---|------|------------------------------|----|--------------|--------------|-----------------|-----------------------|---|--------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Side d p | Two-Side d p | | | Lower | Upper |
| Adaptive Behavior | Equal variances assumed | 3.074 | .084 | 1.662 | 75 | .050 | .101 | .45154 | .27167 | -.08966 | .99274 |

| | | | | | | | | | | |
|--|--|--|-------|--------|------|------|--------|--------|---------|---------|
| Equal vari- ances not as- sumed | | | 1.497 | 37.072 | .071 | .143 | .45154 | .30164 | -.15959 | 1.06267 |
|--|--|--|-------|--------|------|------|--------|--------|---------|---------|

Table 21. Group Statistics Adaptive Behavior and Gender

| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
|-------------------|--------|-----|--------|----------------|-----------------|
| Adaptive Behavior | male | 75 | 2.3156 | 1.03380 | .11937 |
| | female | 129 | 2.2946 | 1.00054 | .08809 |

Table 22. Independent Samples Test Adaptive Behavior and Gender

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|-------------------|--|---|------|------------------------------|---------|--------------|--------------|-----------------|-----------------------|---|--------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Side d p | Two-Side d p | | | Lower | Upper |
| Adaptive Behavior | Equal vari- ances assumed | .016 | .900 | .143 | 202 | .443 | .887 | .02098 | .14707 | -.26902 | .31098 |
| | Equal vari- ances not as- sumed | | | .141 | 150.706 | .444 | .888 | .02098 | .14836 | -.27215 | .31411 |

Table 23. Group Statistics Adaptive Behavior and Age

| | Age Group | N | Mean | Std. Deviation | Std. Error Mean |
|-------------------|----------------|-----|--------|----------------|-----------------|
| Adaptive Behavior | Above 56 years | 74 | 2.4595 | .97722 | .11360 |
| | 17 - 55 years | 130 | 2.2128 | 1.02173 | .08961 |

Table 24. Independent Samples Test Adaptive Behavior and Age

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|-------------------|-----------------------------|---|------|------------------------------|---------|--------------|--------------|-----------------|-----------------------|---|--------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Side d p | Two-Side d p | | | Lower | Upper |
| Adaptive Behavior | Equal variances assumed | .214 | .644 | 1.684 | 202 | .047 | .094 | .24664 | .14648 | -.04218 | .53546 |
| | Equal variances not assumed | | | 1.705 | 157.587 | .045 | .090 | .24664 | .14469 | -.03914 | .53242 |

Table 25. Group Statistics Risk Perception on Foreign Trips and Gender

| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
|--|--------|-----|--------|----------------|-----------------|
| How present did you feel the seven travel risks were on foreign trips during COVID-19? | female | 129 | 2.6645 | .87275 | .07684 |
| | male | 75 | 2.2286 | .81830 | .09449 |

Table 26. Independent Samples Test Risk Perception on Foreign Trips and Gender

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|----------------------------------|-----------------------------|---|------|------------------------------|---------|--------------|-------------|-----------------|-----------------------|---|--------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Sided p | Two-Sided p | | | Lower | Upper |
| Risk perception on foreign trips | Equal variances assumed | .032 | .859 | 3.518 | 202 | <.001 | <.001 | .43588 | .12389 | .19159 | .68017 |
| | Equal variances not assumed | | | 3.579 | 163.023 | <.001 | <.001 | .43588 | .12179 | .19539 | .67637 |

Table 27. Group Statistics Perceived Threat Levels and Age

| | | Age | N | Mean | Std. Deviation | Std. Error Mean |
|-------------------------|------------------------|-----|-----|--------|----------------|-----------------|
| Perceived Threat Levels | Group 1 (17 -55 years) | | 130 | 2.6418 | .78028 | .06844 |
| | Group 2 (56 years) | | 74 | 2.5347 | .86301 | .10032 |

Table 28. Independent Samples Test Perceived Threat Levels and Age

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|--|--|---|------|------------------------------|----|--------------|-------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Sided p | Two-Sided p | | | Lower | Upper |

| | | | | | | | | | | | |
|--------------------------------------|--|------|------|-------|---------|------|------|--------|--------|---------|--------|
| Per- ceived Vulnera- bility | Equal variances assumed | .854 | .357 | 1.644 | 202 | .051 | .102 | .26154 | .15910 | -.05216 | .57524 |
| | Equal variances not as- sumed | | | 1.640 | 150.928 | .052 | .103 | .26154 | .15944 | -.05348 | .57655 |

Table 31. Group Statistics Domestic Travel Decision and Income

| | Income | N | Mean | Std. Deviation | Std. Error Mean |
|-----------------------------|--------------------------|-----|--------|----------------|--------------------|
| Domestic Travel Decision | Group 1 (above 3000€) | 114 | 1.7456 | 1.30222 | .12196 |
| | Group 2 (below 3000€) | 90 | 1.5444 | 1.37523 | .14496 |

Table 32. Independent Samples Test Domestic Travel Decision and Income

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|--------------------------------|--|--|------|------------------------------|---------|---------------------|-------------------------|-------------------------|---------------------------------|---|--------|
| | | F | Sig. | t | df | Signifi- cance | | Mean Differ- ence | Std. Er- ror Dif- ference | 95% Confidence Interval of the Difference | |
| | | | | | | One- Side d p | Two - Side d p | | | Lower | Upper |
| Domestic Travel Decision | Equal variances assumed | 1.065 | .303 | 1.069 | 202 | .143 | .286 | .20117 | .18823 | -.16997 | .57231 |
| | Equal variances not as- sumed | | | 1.062 | 186.137 | .145 | .290 | .20117 | .18944 | -.17256 | .57490 |

Table 33. Group Statistics Domestic Travel Decision and Age

| | Age | N | Mean | Std. Deviation | Std. Error Mean |
|--------------------------|--------------------------|-----|--------|----------------|-----------------|
| Domestic Travel Decision | Group 1 (above 56 years) | 74 | 1.9324 | 1.41742 | .16477 |
| | Group 2 (17 -55 years) | 130 | 1.5000 | 1.26522 | .11097 |

Table 34. Independent Samples Test Domestic Travel Decision and Age

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|--------------------------|-----------------------------|---|------|------------------------------|---------|--------------|-------------|-----------------|-----------------------|---|--------|
| | | F | Sig. | t | df | Significance | | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | One-Sided p | Two-Sided p | | | Lower | Upper |
| Domestic Travel Decision | Equal variances assumed | 1.255 | .264 | 2.246 | 202 | .013 | .026 | .43243 | .19255 | .05277 | .81209 |
| | Equal variances not assumed | | | 2.177 | 138.153 | .016 | .031 | .43243 | .19865 | .03964 | .82523 |